

## ABSTRACT

Title of Thesis: EXAMINATION OF RACIAL  
(IN)VARIANCE IN THE EFFECT OF  
FATHER INVOLVEMENT ON  
DELINQUENCY AMONG URBAN  
ADOLESCENTS IN THE US

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Many prior studies have focused on how different types of paternal involvement contribute to adolescent delinquency. Yet, a relatively limited number of studies research the potential variations of paternal involvement's influence on adolescent delinquency across different ethnic-racial groups. The present study explored whether various types of paternal involvement functioned similarly for white and racial minority adolescents, and whether paternal involvement had any racialized effect on adolescent delinquency. Using data from Fragile Families and Child Wellbeing Study and Poisson regression models, the present study found limited evidence that various types of paternal involvement function differently for the same group. In addition, only certain kinds of paternal involvement showed differential impacts across racial groups. Limitations and implications for future research are also discussed.

EXAMINATION OF RACIAL (IN)VARIANCE IN THE EFFECT OF FATHER  
INVOLVEMENT ON DELINQUENCY AMONG URBAN ADOLESCENTS IN  
THE US

by

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## Chapter 1: Introduction

Studies have long explored the relationship between parental involvement and adolescent delinquent behaviors (Leidy et al., 2014). Although many prior studies have emphasized mothers' influence on their children as primary caregivers, fathers' contributions are also noteworthy (Bowman et al., 2007; Choi & Jackson, 2012; Harris & Marmer, 1996; Hoeve et al., 2009). Fathers get involved in their children's daily life in multiple ways, and children also rate fathers' involvement on different dimensions. Based on the control perspective (Hirschi, 1969), paternal involvement can act as a dominant basis of continuous associations and conformity with conventional social order, thereby reducing children's risk of delinquency (King, 1994a; King et al., 2004). Fathers can also pose a socializing influence on their adolescent children through communications or joint activities, which serve as constraints or fuels for delinquency involvement (Akers, 1998; Sutherland, 1947). Paternal parenting behaviors can even become a direct source of stress for children, prompting them to commit crimes to release their negative emotions (Agnew, 2006). Therefore, most prior studies, while acknowledging the crucial position of paternal involvement, have considered the influence of paternal involvement as varying, depending on the type of involvement (Agnew & Brezina, 2019; Farrington et al., 2009; Rankin & Kern, 1994)

To complicate matters, scholars haven't reached a consensus on whether each paternal involvement has similar performance for white, African American, and Latino adolescents. Race and ethnicity are deeply rooted in every aspect of American society. The different experiences of white, African American, and Latino

adolescents at individual, family, community, societal, and cultural levels reflect the prevalence of racial inequalities, oppression, and discrimination (Eitle, 2006; Fagan & Novak, 2018; McNulty & Bellair, 2003; Voelkel et al., 1999). Therefore, rather than assume a racially uniform influence for each form of paternal involvement, scholars have begun to turn their attention to the underlying causes that can differentiate the effect of paternal involvement across ethnic-racial lines. Because racial minority families are more likely to experience exposure to violence and other adverse structural conditions, some scholars have argued that certain types of paternal involvement might be more effective at blocking the negative influence of external criminogenic threats on their children (Gorman-Smith et al., 2000; Lansford et al., 2004). For example, Hughes and colleagues (2006) examined the ethnic-racial socialization processes embedded in racial minority fathers' parenting efforts. They highlighted the protective role of paternal involvement in preparing minority children for prejudice, teaching them to be cautious during interactions with people of other races/ethnicities, and lowering their participation in risky behaviors (Hughes et al., 2006). Further, some studies have demonstrated that certain paternal involvement exerts more influence on racial minority adolescents, as it generates stressful experiences more conducive to delinquency (Jang & Johnson, 2003; Kaufman et al., 2008). Still, those prior studies are insufficient for uncovering racial/ethnic differences in the effect of different types of paternal involvement (Hawkins et al., 2007).

The current study used the Fragile Families and Child Wellbeing Study (FFCWS) dataset to assess whether various kinds of paternal involvement affect their

children's delinquency during adolescence, and whether the pattern of their effects varies by ethnic-racial groups. Specifically, by performing moderation analysis, this study examined ethnic-racial differences in paternal involvement's influence on adolescent delinquency, which serves as the proxy for the potential racialized effect that paternal involvement may exert within families of different ethnic-racial backgrounds. The current study built on prior work (Coley & Medeiros, 2007; King, 1994a; Pan & Farrell, 2006; Thomas et al., 1996) to make the following contributions. First, focusing on the role of race/ethnicity and investigating how it serves as a potential source of variation in paternal involvement's effect on adolescent delinquency, this study incorporated perspectives from control, learning, and strain theories as to the possible explanations (Agnew, 1992; Akers, 1998; Hirschi, 1969). Second, offering empirical evidence from quantitative analyses, this study further unpacked the involvement-delinquency association pattern by looking at how each separate form of paternal involvement varies in its influence on adolescents across ethnic-racial groups. It also moved beyond prior research to examine a form of paternal involvement that has not often been included in research on this topic (Hughes et al., 2006; Unnever & Gabbidon, 2011), the father-child discussion of police contact experience, and how it may contribute to adolescent delinquency. Third, this study examined a relatively racially diverse group, an urban-based adolescent sample, allowing for in-depth exploration of the proposed research questions. Finally, this study offered evidence to facilitate policy implications for better parent-child interaction and family communication.

## Chapter 2: Literature Review

### *Paternal Involvement and Adolescent Delinquency*

Paternal involvement is a concept with multiple dimensions and categories, and its definitions and measurement vary from study to study (Lamb et al., 1987). Early studies initially treated paternal involvement as the degree of father absence or presence during their children's daily life (Amato & Gilbreth, 1999). Various contemporary studies, building off Lamb's (2000) work, have defined paternal involvement as childrearing, responsibility fulfillment, and time spent for father-child interactions (Adamsons, 2018; Charles et al., 2018; Cryer-Coupet et al., 2020; Pleck, 2007). Palkovitz (2007) further considered paternal involvement as reflecting both the quality and style of father-child interactions, including emotional connections, behavioral patterns, and relationship coordination. To correspond with the evolving definition of paternal involvement, recent scholars have operationalized paternal involvement using different measures to record the quantity of concrete events fathers participate in or the duration of time that fathers have with their children (Adamsons, 2018). Some research has paid attention to fathers' economic contributions and their role as breadwinners (Edin & Nelson, 2013; Emory et al., 2020). Other scholars, however, have advocated for more diverse and intangible measures of paternal involvement to mirror the quality of father-child relationships and fathering style (Hawkins & Palkovitz, 1999). Given the various ways that paternal involvement has been defined in the literature, and the importance of paternal involvement in child development, it is necessary to examine the influence of specific types of paternal involvement on adolescents' behavioral outcomes, including delinquent behaviors,

rather than treating paternal involvement as a homogenous factor (Coates & Phares, 2019; Cryer-Coupet et al., 2020).

Regardless of how paternal involvement is defined, prior studies have focused on the link between paternal involvement and adolescent children's involvement in problematic behaviors, delinquent offenses, and crimes (Choi et al., 2018; Craig, 2016; Opondo et al., 2016; Stewart, 2003; Wilson & Prior, 2010; Yoon et al., 2018). Despite the persistence of early behavioral problems and later adverse outcomes in life, many scholars have argued that fathers' interventions still have significant impacts on their children's delinquency during adolescence (Carlson, 2006; Cobb-Clark & Tekin, 2014; Cookston, 1999; Flouri et al. 2016; Wiggins et al. 2015). What follows is an overview of the different ways that paternal involvement can influence adolescent children's behaviors and potential delinquency, based on various theoretical frameworks (Agnew, 1992; Akers, 1998; Hirschi, 1969).

First, paternal involvement can serve as an inhibitor for adolescent delinquency. Hirschi (1969) posited the strong parental social bonds as primary factors restraining adolescents from delinquency engagement despite their natural inclination towards crime and deviance. Therefore, various paternal involvement contributing to bond maintenance and enhancement reduces adolescents' delinquency involvement (Cabrera et al., 2008; Emory et al., 2020; Gold et al., 2020; Goney and Van Dulmen, 2012; King et al., 2004; Marsiglio et al., 2000; Stewart, 2003; Yuan and Hamilton, 2006). For example, Ellis and colleagues (2003) found that meaningful communication helps improve children's willingness to share matters and thoughts with their fathers, and become more determined to resist the temptation of

delinquency. Other scholars have argued that intense emotional closeness with fathers better expresses fathers' warmth, trust, and love, and makes children more competent to live up to their standards, thus preventing juveniles from committing more delinquency (Amato and Rivera, 1999; Craig, 2016; King et al., 2004; Yoon et al., 2018). Some studies have also considered paternal discipline as fathers' efforts to encourage conformity for desirable actions and monitor, recognize, and punish their children's deviance promptly for future delinquency prevention (Carlson, 2006; Fosco et al., 2012; Gottfredson & Hirschi, 1990). In general, these kinds of paternal involvement promote father-child attachment and strengthen their beliefs favoring abidance by law, hindering juveniles from further crime engagement (Rankin & Kern, 1994).

Second, paternal involvement can be a model for children to learn from and imitate. Akers (1998), drawing upon Sutherland's (1947) differential association perspective, argued that children could learn both normal and deviant behaviors through the interplay of differential association, imitation, definitions, and differential reinforcement (Bandura, 1977, Burgess & Aker, 1966). On the one hand, some scholars have viewed father-child interactions as the necessary way children learn how to behave or imitate their fathers' behaviors (e.g., Hofferth, 2003). Fathers lead by example through joint activities and encourage their children to engage in more conventional activities. These include shared sports events, recreational activities during their leisure time, or more coaching for their homework (Agnew & Peterson, 1989). In the meantime, those activities leave less time and opportunities for adolescents' exposure to other activities conducive to delinquency, such as

connections with deviant peers or juvenile gangs (Acevedo-Polakovich et al., 2019; Hesselink & Bougard, 2020; Osgood et al., 1996). Fathers also share their experiences of education, employment, and justice system involvement with their children (Yoder et al., 2016). During those discussions, children can acquire attitudes, orientations, or attitudes toward nondeviant behaviors from their fathers and internalize them as their own (Akers & Jennings, 2019). They also learn valuable lessons from their fathers to be more capable of coping legally with the potential difficulties and criminal opportunities in the future (Unnever, 2014). On the other hand, fathers sometimes become "bad dads" to their children. Several studies have found that paternal involvement can become the breeding ground for the continuation of crime and delinquency from fathers to their adolescent children (Bijleveld & Wijkman, 2009; Farrington et al., 2009; Hoffmann, 2015). Conversations and activities with fathers who have a prior incarceration history are perfect places to teach their children criminal skills and motivations (Slaughter et al., 2019; Waller & Swisher, 2006). Paternal neglect or commitment also encourages children to imitate and become accustomed to bad habits. The absence of fathers or the intermittent presence of father figures encourages children to shy away from their responsibilities (Markowitz & Ryan, 2016). At the same time, strict paternal discipline makes children learn to treat others callously, ruthlessly, and without empathy (Lansford et al., 2014). The paternal incitement, abetting, indifference, and harshness further increase their adolescent children's willingness, motives, and capacity for delinquency involvement.

Third, paternal involvement can also be a stressor for the adolescent to respond with delinquency. Agnew (1992) proposed in his general strain theory that higher strains/stress tend to generate negative emotions for individuals, which further invites delinquency as their final response when conventional coping strategies are insufficient or missing (Agnew, 2006). For some adolescents, negative topics or arguments during father-child communication are stressful and disgusting (Hollist et al., 2009). The unpleasant father-child interaction experience makes it more likely that adolescents will use delinquency as an outlet for negative feelings and stress (Agnew & Brezina, 2019; Hay, 2003). Harsh paternal discipline often backfires as well (Farrington, 2010; Sampson & Laub, 1994). The enforcement of physical and severe punishment reflects both fathers' anxiety about their child's early disorder behaviors and their preference for strict parenting strategies (Coley & Medeiros, 2007; Peck, 2013; Pinderhughes et al., 2000). But such a punitive approach offers children a sense of insecurity, lack of warmth and relatedness, and excessive anger and resentment (Evans et al., 2012; Simons et al., 2007). Contrary to its intent, being tough for conflict resolution ends up pushing adolescents into more delinquent engagement (Simmons et al., 2018; Stewart, 2003). Other paternal involvement, such as the father's economic contributions, instead alleviates adolescents from strains (Kane et al., 2015). Fathers' formal and informal child support offers their adolescent children the necessary material goods and financial resources that they need to maintain higher educational goals, seek better job aspirations, and avoid suffering from hunger and cold (Cabrera et al., 2008; Coley and Medeiro, 2007; Emory et al., 2020). It is demanding for those fathers not residing with their children to provide

financial support consistently and actively due to discordant parent relationships and the wide range of parenting responsibilities to afford (Waller et al., 2018). Therefore, fathers who insist on fulfilling their maintenance obligations with material support don't only relieve the children and their mothers from worries, but also make the children feel the persistence of their father's love and support for them (Agnew et al., 2000; Coley & Medeiros, 2007; King, 1994b).

### *Potential Racialized Effect of Paternal Involvement*

Given the diverse theoretical explanations of paternal involvement's potential beneficial or detrimental influence, the critical question is whether their effects on adolescent delinquency vary across ethnic-racial groups. Prior studies have consistently underlined race and ethnicity as correlates of juvenile delinquency (Hindelang et al., 1979; Peterson, 2012). Empirical studies using either official statistics or survey data have reported substantial racial/ethnic differences in violence and other deviance (Felson & Kreager, 2014; Hockenberry & Puzanchera, 2020; McNulty and Bellair, 2003; Puzanchera, 2020). Many scholars have unpacked the mechanism by having structural and individual differences to account for white and minority adolescents' differential delinquency involvement (Agnew, 1992; Gottfredson & Hirschi, 1990; Hirschi, 1969; Shaw & McKay, 1942; Sampson; 2008; Sampson & Wilson, 1995; Sampson et al., 2018). But others wonder whether the father's race/ethnicity interacts with their degree of involvement, thus creating a heterogeneous, racialized effect on adolescent delinquency (Cabrera et al., 2008; Hofferth, 2003). For children in both white and minority families, different types of paternal involvement function as significant contributors to family bonds, social

capital, learning strategy, and the source of stressors (Matsueda & Heimer, 1987; Piquero & Sealock, 2010; Wareham et al., 2009). However, given adolescents' racialized daily life experience in the United States, fatherhood may have different meanings to their children, as protector, abettor, or stressor, along ethnic-racial lines. Therefore, different types of paternal involvement can perform differently across adolescents from the racial majority and minority groups (Hagerman, 2017; Priest et al., 2014).

First, given the relatively high proportions of concentrated disadvantages, crime, violence, drugs, prostitutes, and street gangs in many disadvantaged neighborhoods, some studies have argued that racial minority fathers, relative to white fathers, rely on certain types of involvement to cut down the negative impacts from delinquent peers, criminal gangs, and disadvantaged neighborhoods (Gorman-Smith et al., 2000). Roche and colleagues (2011) found that living in communities with generally more advantages and better security made most white adolescents view frequent use of harsh paternal discipline as unnecessary and unacceptable. Similarly, Lau and colleagues (2006) found that the racial disparities in early child behaviors also lead white adolescents to react more strongly to their fathers' strict discipline, driving them further toward delinquency. However, Hofferth (2003) has argued that some African American and Latino fathers consider harsh discipline as a necessary and effective strategy in alleviating their children from the street, the sight of the police, and the contact with the criminal justice system. Other empirical studies have further confirmed the effectiveness of harsh discipline in reducing behavior problems for minority adolescents, but still associating with more behavior problems

for white adolescents (Lansford et al., 2004; White et al., 2019). Similarly, paternal economic contributions may be more effective at reducing violence for minority adolescents. As Aquilino (2005) suggested, stable paternal financial support can minimize the possibility of teenagers working outside school hours and using every means to make money. It also helps adolescents maintain their school enrollment and strengthen their attachment to families and schools (Krohn & Massey, 1980). For disadvantaged minority youths, without sufficient financial support, they have to spend more time on part-time jobs or other businesses outside their homes, which exposes them to more poor neighborhood conditions, delinquent peers, street gangs, and violence (Aquilino, 2005). Instead, paternal financial support, by reducing adolescents' time and needs to have extra work for earnings, helps restrain minority youths from more interactions with adverse neighborhood conditions, along with individuals prone to crimes, and stay away from crime and delinquency rather than participate in it (Hirschi, 1969).

Second, racial minority fathers embed ethnic-racial socialization processes within their parenting practices (Hughes et al., 2006). Simply put, racial minority fathers do not teach their children only about resistance to external deviant temptations or instead the motivations and skills needed for delinquency, but also about ethnic-racial knowledge to better deal with racial injustice and discrimination (Park et al., 2020). Like white fathers, racial minority fathers in the United States face the privilege and obligation of educating their children with culturally appropriate ideals and values that allow them to take on adult positions in society one day. However, the prevalent inequalities, discrimination, and disadvantages between

minority and white populations in various life domains make it a demanding task (Berkel et al., 2010). As the bridge between their children and the outside world, fathers of color often have no choice but to inculcate their children with how to cope with a world that can degrade, discredit, or even criminalize them (Sharkey, 2006; Unnever & Gabbidon, 2011; Unnever et al., 2016). Among the common practices for ethnic-racial socialization, both preparations for bias and promotion of mistrust can play critical roles for changes in adolescent delinquency (Hughes et al., 2006; Unnever & Gabbidon, 2011). The preparations for bias require minority fathers to let their children know of the systematic racial discrimination in this society, and more importantly, how to deal with it as minority adolescents (Gelman et al., 2012; Ridgeway, 2007; Ridgeway & MacDonald, 2009). Minority fathers also teach their adolescent children "street smart", so that they may survive the chaos on the streets and avoid violence, gangs, and strife (Sharkey, 2006; Gibson et al., 2014). The promotions of mistrust instead ask minority adolescents to stay away from white peers and adults and remain vigilant during potential interactions with police officers (Coard et al., 2004; Hughes et al., 2006).

Those ethnic-racial socialization processes also differ between disadvantaged African American and Latino youths, as they each face different challenges and assets. Some studies have argued that the massive discrimination against African Americans in early and contemporary US history, along with adaptive kinship and strong family support, urges African American fathers to value and remain more open to engaging in dialogues to discuss children's prior encounters with the police and share their views on racism (Horn et al., 2004; Huebner et al., 2004; Rodriguez et al.,

1999; Umberson & Thomeer, 2020). Other studies have found that Latino families face naturalization and acculturation pressures but hold beneficial cultural resources such as considerable values on education, familism, and filial piety (Cupito et al., 2015; Lindsay et al., 2015; Stein et al., 2015). Therefore, some scholars have argued that their father-child discussions regarding previous police contact experience leave a more profound impression on African American children than Latino children (Hughes, 2003; Hughes et al., 2006).

Third, paternal involvement represents different stressful experiences across ethnic-racial groups, and specific paternal involvement can be more conducive to delinquency for white or minority adolescents (Piquero & Sealock, 2010). For example, Yoder and colleagues (2016) found that racial minority children are less likely to reside with their fathers than white children are and, therefore, are more accustomed to life without paternal appearance. Instead, paternal involvement makes them feel constrained and uncomfortable, as they view their father as too involved in their lives (Yoder et al., 2016). Also, Fagan and Barnett (2003) found that whether paternal involvement becomes strains or resources may be contingent on the quality of father-mother relationships. Commonly residing with their children as the primary caregivers, mothers serve as gatekeepers to increase or limit paternal visitation (Fagan & Barnett, 2003). Therefore, things will become more undesirable if the father's insistence on involvement encounters resistance and unwillingness from mothers and children (Palkovitz, 2019). In addition to being direct stressors, Cooper and colleagues (2015) suggested that some types of paternal involvement turn into different resources for white or minority adolescents to restrain or promote legal

coping strategies. Some studies have found that minority families generally perform poorer in family economic conditions and (physical and mental) health status than white families (Campbell et al., 2012; Rodriguez et al., 1999). Therefore, as Serido and colleagues (2010) argued, paternal economic contributions can boost more legal coping strategies for minority children to respond to their financial strain and the associated negative emotions such as anger and anxiety.

### *The Present Study*

Although many scholars have explored the relationship between paternal involvement and adolescent delinquency (Blum et al., 2000; Cabrera et al., 2011; King et al., 2004; Weber et al., 1995), and others have begun to take notice of the possible underlying racial difference in the effect of paternal involvement on adolescent delinquency (Coley and Medeiros, 2007; Pan & Farrell, 2006; Thomas et al., 1996), the existing literature is insufficient to depict a clear image of whether different kinds of paternal involvement work in the same way across families of different races/ethnicities for their adolescent children or not. Therefore, the present study integrated the ethnic-racial perspective into the study of paternal involvement and adolescent delinquency. Specifically, this study asked the following research questions:

*RQ1:* What is the relationship between various types of paternal involvement and their children's delinquency during adolescence?

*RQ2:* Do those types of paternal involvement work similarly or differently for adolescents from families of different races/ethnicities?

To further examine the involvement-delinquency link within the white and minority (African American and Latino) populations, the author presented two competing hypotheses regarding the primary relationships between paternal involvement and adolescent delinquency, followed by two additional hypotheses to explore the potential racial variations within those relationships:

*Hypothesis 1a:* The association between paternal involvement and adolescent delinquency remains the same across different types of paternal involvement.

*Hypothesis 1b:* The association between paternal involvement and adolescent delinquency varies by the type of paternal involvement.

*Hypothesis 2a:* For each type of paternal involvement, its association with adolescent delinquency remains the same for white, African American, and Latino groups.

*Hypothesis 2b:* For each type of paternal involvement, its association with adolescent delinquency is different across white, African American, and Latino groups.

## Chapter 3: Data and Methods

### Data

This study used the data from the Fragile Families and Child Wellbeing Study (FFCWS), of which the baseline and the most recent two waves were mainly used. The FFCWS is a national longitudinal birth-cohort study of 4,898 children born between 1998 and 2000 in hospitals in 20 large, urban, US cities with populations greater than 200,000. This dataset oversampled those families with non-marital births (approximately three-fourths of the dataset). It utilized a stratified random sampling method on major cities, hospitals within the cities, and births within hospitals. Mothers and fathers of focal children were interviewed primarily in-person at baseline (wave 1) and subsequently re-interviewed in-person or by phone when the child was around 1, 3, 5, 9, and 15 years old (waves 2, 3, 4, 5, and 6 respectively). Those follow-ups were conducted successfully with high response rates. Because the original sample members were not selected independently with equal probabilities, each wave contains its unique sets of weights for unbiased generalizable estimates. All the weights are adjusted for the sample selection, nonresponse, and attrition based on observed characteristics over the waves (Reichman et al., 2001). This study used the city-level probability weight for primary analysis to have the findings covering adolescents in all birth samples in the 20 cities.

The primary advantage of using FFCWS dataset is that it allows the flexibility of choosing to use father-reported, mother-reported, or even child-reported measures of paternal involvement, delinquency problems, and other possible covariates since it asked each family member multiple questions about those measures to provide

detailed information (Waldfogel et al., 2010). In addition, the dataset offers measurements for various types of paternal involvement, mostly similar to those used in prior studies, for utilization during analysis. The longitudinal nature of the sample contributes to this study, as well. With multiple streams of data, to ensure the precise temporal order of the variables, the author selected the outcome measure from the Y15 follow-up interview, most types of paternal involvement from the Y9 follow-up interview, and other variables, including fathers' race/ethnicity, from earlier waves (baseline through Y5 follow-up interviews).

### Measures

#### Dependent Variable(s)

*Adolescent delinquency.* The current study divided adolescent delinquency into property and violent delinquency. Adolescents' self-reported delinquent behaviors during the Y15 follow-up survey were used to construct two outcomes. For the *property delinquency*, adolescents reported whether they committed any of the following: 1) painted graffiti or signs on private property/public spaces; 2) deliberately damaged property that didn't belong to them; 3) taken something from a store without paying for it; 4) driven a car without its owner's permission; 5) stolen something worth more than \$50; 6) gone into a house or building to steal something; 7) sold marijuana or other drugs, and 8) stolen something worth less than \$50. For the *violent delinquency*, adolescents reported whether they committed any: 1) gotten into a serious physical fight; 2) hurt someone badly enough to need bandages or medical care; 3) used or threaten to use a weapon to get something, and 4) taken part in a group fight. The current study coded each item as "1" if adolescents mentioned they

conducted this act one or more times and “0” if they never did it. Items were combined into two variety scale factors to reflect the overall number/types of property (Cronbach's alpha = .68) and violent delinquency (Cronbach's alpha = .63) adolescents committed. The overall reliabilities for both measures, though not ideal, are still acceptable. The current study also used similar items from the Y9 follow-up interview to construct another variety scale factor (Cronbach's alpha = .71) to measure prior delinquency (Maumary-Gremaud, 2000).

#### Independent Variable(s)

The present study mainly covered the following types of paternal involvement: financial and physical support, communication, joint activities, intimate father-child connection establishment, harsh conflict tactics, and police-contact experience sharing. Among them, police-contact experience sharing was based on children's self-reporting from the Y15 follow-up interview. All the other types of paternal involvement were based on child- or mother-reported measures from the Y9 follow-up interview. Paternal responses were not used to reduce and avoid the potential effect of censoring bias. The number of father-reported items for their involvement remains relatively limited in the FFCWS survey, and the potential social desirability bias further influences their accuracy (Lansford et al., 2011).

*Financial and physical support* is a dichotomous measure reflecting mothers' confirmation of financial or material support from fathers' side, indicating whether fathers provided cash, paid for tuition or child support, or bought/paid for any items for their children.

*Extreme emotional closeness* is a dichotomous measure to reflect whether children self-identified as feeling extremely close to their dad (National Survey of Children's Health, 2003a; 2003b). Responses like "refused" and "don't know" were treated as missing. This measure mirrored children's views on the extent to which fathers were willing and dedicated to establishing and keeping a positive relationship with them (Craig, 2016, Yoon et al., 2018). Also, how close children felt to their fathers could influence the possibility of their fathers performing other kinds of involvement (Amato and Rivera, 1999; King et al., 2004).

*Communication* was constructed as a sum scale factor (Cronbach's alpha = .83) based on the following items: 1) fathers talked over important decisions with the children, 2) listened to children's side of an argument, and 3) shared ideas or talked about things that really matter well. For the first two questions, children were asked to indicate responses on a 4-point scale of 0 ("never"), 1 ("sometimes/not very often"), 2 ("often"), and 3 ("always"). For the third question, children could choose "extremely well," "quite well," "fairly well," or "not very well." The third question was reverse coded to reflect the same rank order on every item. For those children who did not see their fathers during the past year, their answers to all three items were directly coded as zero.

*Shared activities*, a sum scale factor (Cronbach's alpha = .72) combined the following two items: 1) fathers spent enough time with their children, and 2) ever missed events or activities that were important to the children. Children were asked to indicate responses on a 4-point scale of 0 ("never"), 1 ("sometimes/not very often"), 2 ("often") and 3 ("always"). The second question was reverse coded before generating

the factor. For those children who did not see their fathers during the past year, their responses were directly coded as zero.

*Harsh conflict resolution/discipline* is a sum scale factor (Cronbach's alpha = .77) based on the following items (Straus et al., 1998): 1) fathers explained to children why something they did was wrong; 2) sent them to their rooms, took away privileges, or grounded them; 3) shouted, yelled, screamed, swore, or cursed at them, and 4) spanked or hit them. The available options ranged from "never," "less than once per month", "once or a few times per month," "few times per week" to "every/almost every day."

*Police-contact experience sharing* is a 3-category nominal-level measure indicating whether adolescents told their fathers about the prior experience of being stopped by the police. For those adolescents with such experience, they could choose “yes” or “no.” And for other adolescents without the experience, the present study placed them under the category of “no contact.” This information is only available from the Y15 follow-up interview. This measure may suffer the bias brought by underestimation due to underreporting and the race-specific experience (e.g., minority adolescents are more likely to be stopped by the police). Still, the current study uses it as an additional type of paternal involvement, and a proxy to reflect the ethnic-racial socialization process between father and children.

#### Moderator and Control Variables

*Father's race/ethnicity* was based on information from the baseline interview. The present study constructed it as a nominal-level variable with three categories: White (non-Hispanic), Black (non-Hispanic), and Hispanic/Latino. Although the

FFCWS dataset also contains a few respondents from families of other races, its proportion in the final analytic sample was very low. The current study excluded those observations for other races in the end. It is also worth noting that there could be differences between the father's race/ethnicity and the ethnic-racial identity reported by adolescents. Therefore, the current study compared two race/ethnicity measures and included results using adolescent self-reported racial identity within the sensitivity analysis.

Besides the prior delinquency measure, several *covariates* could confound the relationships between the primary outcome and the predictors. Therefore, it is necessary to consider them and ensure that the current study could examine the relationship between those critical variables while all the other covariates remained constant. Therefore, the present study classified the control variables into several types and included them in the regression models: 1) *Paternal characteristics*: father's age, educational level, residential status, income-to-poverty ratio, employment status, incarceration history, parenting stress, history of serious illness, and history of serious addiction; 2) *Maternal characteristics*: mother's age, educational level, income-to-poverty ratio, parenting stress, history of serious illness, history of serious illness, and extreme emotional closeness between children and mothers; 3) *Parents' relationship*: marital status at baseline, mothers' repartnering (i.e., married or cohabiting with partners other than biological fathers), and mothers' "gatekeeper" decision (ever encourage or limit father from visiting the children); 4) *Adolescent's characteristics*: adolescents' gender, age, and whether they have any prior police contact experience (e.g., ever stopped, questioned, or arrested by the police, or reported the cases to the

police). Most of those covariates are from baseline and Y5 follow-up interviews, with a few of them coming from Y9 and Y15 follow-up interviews. In addition, some covariates (e.g., paternal history of serious addiction up to Y5) gathered information across the waves to capture any change that may have occurred during that time-lapse.

### Analytic Strategy

#### Analytic Sample

The current study used the analytic sample based on multiple imputation techniques, consisting of 3,300 families whose adolescent children participated and completed the Y15 follow-up interview. All data were weighted using the city-level weights associated with the Y15 child/adolescent follow-up survey. When the author initially applied listwise deletion, there were only 1437 adolescents left in the final sample for subsequent analyses. Therefore, the analyses were vulnerable to low statistical powers because of the reduced sample size. Also, to produce unbiased coefficient estimates, complete case analysis (i.e., using listwise deletion sample) needs to ensure that data are missing completely at random (Little, 1988). This assumption is nearly impossible in reality for a longitudinal survey. Further, selection bias would occur if the distribution of parents' and adolescents' characteristics (e.g., age, marital status, race/ethnicity, and poverty categories) differed between the analytic sample using listwise deletion and other cases excluded. Based on those concerns, this study performed multiple imputations through chained equations, with the augment regression setting, to estimate missing values of all the variables used in the primary analysis except for the indicator of race/ethnicity. The augment

regression setting was added as a computationally convenient way to avert perfect prediction, as it could produce biased results during the imputation procedures, especially for categorical outcomes (White et al., 2010). Most of the variables were missing, on average, less than 10% of their observations (with missing data ranging from less than 1% for variables like mothers' and adolescents' age to approximately 28% to 29% for paternal income-to-poverty ratio and parenting stress). The current study then imputed missing information, generating 30 imputed data sets, and pooling the descriptive as well as multivariate results (Efron, 1994).

#### Descriptive Analysis

The present study reported the descriptive statistics of all the variables used in the final analysis for the whole sample and each racial/ethnic subgroup. First, mean and standard deviations were reported for continuous variables, while percentage values were presented for dichotomous variables and categories within the nominal- or ordinal-level variables. Then, for the set of bivariate Poisson regressions examining the unadjusted relationship between each type of paternal involvement and the delinquency outcomes, the current study presented those results in Appendix A1.

#### Primary Analysis

Because the two outcomes were non-negative counts of delinquency events, the present study finally chose Poisson regression as the primary statistical tool (Long, 1997), with survey weights incorporated, and robust standard errors used for overdispersion adjustment (Berk & MacDonald, 2008). The primary analysis consisted of several steps. First, to unpack the basic function of different types of paternal involvement, the current research ran one Poisson regression on all kinds of

paternal involvement without covariates as the benchmark. Second, all the covariates, including the prior delinquency measure, were added to the previous Poisson regression model to examine the relationships between adolescents' delinquency and various types of paternal involvement after adjusting for those covariates. These results were followed with post-hoc tests to check for differences in the magnitude of the effects of different types of paternal involvement within the same model. The basic format of the entire model is shown below:

$$\begin{aligned}
 \text{AdolescentDelinquency}_{Y15} = & \beta_0 + \beta_1 \text{Closeness}_{Y9} + \\
 & \beta_2 \text{Communication}_{Y9} + \beta_3 \text{Activity}_{Y9} + \beta_4 \text{Conflict}_{Y9} + \beta_5 \text{Financial}_{Y9} + \\
 & \beta_6 \text{ExpericencePolice}_{Y15} + \sum \beta_i \text{Covariate}_{it} + \varepsilon
 \end{aligned}$$

Third, to examine the effect of paternal involvement within each ethnic-racial group, the present study performed subpopulation analysis within the first two steps by limiting the sample to white adolescents, African American adolescents, and Hispanic/Latino adolescents only. Also, the present study added interaction terms between each type of paternal involvement and race/ethnicity to the regression models. The subsequent (post-hoc) tests examined whether significant white-Black, white-Hispanic/Latino, or black-Hispanic/Latino differences existed for involvement-delinquency connections.

#### Sensitivity Analysis

For robustness check, the current study first performed a set of Poisson regressions to examine the separate association between each type of paternal involvement and their children's delinquency during adolescence. Second, one additional covariate, the frequency of peer delinquency, was added to the model as a

proxy for external criminogenic threats. Third, results from negative binomial regression were reported for comparison. Fourth, the author had the outcomes replaced with mother-/PCG-reported (primary caregiver) externalizing behavior problems (and the changes between Y9 and Y15 for this measure) to see if there were any differences due to the outcome measures used (Achenbach & Rescorla, 2001). Also, the author checked the robustness by comparing the results from the sample based on multiple imputations and those using listwise deletion. Finally, the present study reported the differences between fathers' race/ethnicity and adolescents' self-reported race/ethnicity and compared the main results to the alternative using adolescents' self-reported race/ethnicity as the moderator.

## Chapter 4: Results

### *Paternal and Adolescents' Sociodemographic and Crime Characteristics*

Table 1 shows the sociodemographic and crime profiles of those families involved in the final analytic sample. Overall, this sample consisted of fathers aged in later adulthood ( $M = 29.55$ ,  $SD = .34$ ), commonly married or cohabiting (74.48%), having a high school diploma/GED or higher educational level (68.47%), and residing in the same household with their focal child (67.41%). Approximately 20% of fathers were out of work, and nearly 30% reported a history of incarceration in the past. Also, some fathers had a severe illness (33.30%) or addiction issue (18.62%) that hindered them from regular work, education, or social life. About 31.73% of mothers had new partners other than their children's biological fathers during the whole follow-up period. About 32% of them asked or encouraged adolescent fathers for more visits, while nearly 5% instead restricted or refused fathers' requests for child visits. As for their descendants, there were more adolescent males in the sample (53.51%), and approximately 16% of adolescents had police contact experience in the past.

There were significant variations in these characteristics between racial groups. The author used multiple bivariate OLS, binary, and ordinal logistic regressions to demonstrate those racial group differences (results not shown here). White parents had more tremendous advantages in socioeconomic conditions than their minority counterparts. There were significantly more residential white fathers than African American ( $\beta = -1.34$ ,  $SE = .31$ ,  $p < .001$ ) and Latino fathers ( $\beta =$

**Table 1***Descriptive Statistics for the Analytic Sample*

Variable	All (N = 3300)	White (n = 650)	Black (n = 1799)	Hispanic/ Latino (n = 851)
	%/M[SD]	%/M[SD]	%/M[SD]	%/M[SD]
<b>Delinquency</b>				
Property-related Y15 (0 to 8)	.24 [.03]	.14 [.03]	.26 [.03]	.28 [.06]
Violence-related Y15 (0 to 4)	.34 [.03]	.13 [.02]	.54 [.04]	.30 [.05]
Prior delinquency Y9 (0 to 17)	1.21 [.21]	.95 [.02]	1.30 [.08]	1.48 [.54]
<b>Father involvement</b>				
Monetary/material support (Y9)	84.68%	94.92%	76.68%	84.86%
Communication Y9 (0 to 9)	4.37 [.15]	5.29 [.28]	4.04 [.20]	4.02 [.27]
Shared activities Y9 (0 to 6)	3.18 [.10]	3.94 [.21]	2.82 [.11]	2.97 [.20]
Harsh discipline Y9 (0 to 16)	3.83 [.19]	4.52 [.37]	3.43 [.22]	3.71 [.38]
Extreme emotional closeness (Y9)	55.66%	68.62%	50.02%	51.44%
Police contact experience discussion (Y15)				
No	11.12%	8.45%	14.95%	9.33%
Yes	4.77%	4.87%	6.83%	2.66%
No contact	84.11%	86.68%	78.22%	88.01%
<b>Father's characteristics</b>				
Race/ethnicity (BL)				
Non-Hispanic White	27.51%	-	-	-
Non-Hispanic Black	36.04%	-	-	-
Hispanic/Latino	36.45%	-	-	-
Residential status (Y5)	67.41%	82.61%	56.15%	67.07%
Educational level (BL)				
No high school diploma	31.43%	7.80%	32.53%	48.94%
High school or GED	26.82%	18.16%	36.98%	23.30%
College education/degree	41.75%	75.04%	30.49%	27.76%
Age BL (15 to 53, in years)	29.55 [.34]	32.72 [.63]	27.93 [.44]	28.76 [.64]
Income-to-poverty ratio Y5 (0 to 52.2)	3.31 [.21]	5.74 [.55]	2.49 [.18]	2.30 [.26]
Unemployed (Y5)	19.88%	8.74%	32.92%	15.40%
Incarceration history (Y5)	29.97%	10.20%	43.02%	32.00%
History of serious illness (Y5)	33.30%	24.29%	39.87%	33.59%
History of serious addiction (Y5)	18.62%	14.10%	18.36%	22.29%
Parenting stress Y5 (0 to 12)	2.51 [.15]	3.35 [.26]	1.70 [.13]	2.67 [.31]

Variable (continued)	All	White	Black	Hispanic/ Latino
	(N = 3300)	(n = 650)	(n = 1799)	(n = 851)
	%/M[SD]	%/M[SD]	%/M[SD]	%/M[SD]
<b>Mother's characteristics</b>				
Educational level (BL)				
No high school diploma	29.98%	9.72%	32.36%	42.91%
High school or GED	32.16%	18.59%	41.00%	33.67%
College education/degree	37.86%	71.69%	26.64%	23.42%
Age BL (15 to 43, in years)	27.02 [.29]	30.55 [.52]	25.04 [.39]	26.32 [.53]
Income-to-poverty ratio Y5 (0 to 35.5)	2.65 [.19]	5.43 [.47]	1.50 [.85]	1.69 [.22]
History of serious illness (Y5)	38.24%	35.33%	38.33%	40.36%
History of serious addiction (Y5)	4.72%	4.97%	5.54%	3.73%
Parenting stress Y5 (0 to 12)	4.80 [.14]	4.97 [.22]	4.63 [.15]	4.85 [.32]
Extreme emotional closeness (Y9)	76.07%	74.96%	76.11%	76.88%
<b>Parents' relationship</b>				
Parents married (Y5)	51.26%	86.98%	21.34%	53.89%
Parents cohabiting (Y5)	23.22%	9.37%	28.43%	28.51%
Maternal repartnering (Y1-Y15)	31.73%	22.88%	40.92%	29.32%
Ever ask fathers for more visit (Y5)	32.10%	23.98%	38.04%	32.35%
Ever refuse to let fathers see the kid (Y5)	4.93%	2.00%	5.29%	6.78%
<b>Adolescent's characteristics</b>				
Boys (BL)	53.51%	50.78%	52.11%	56.96%
Age Y15 (14 to 19, in years)	15.41 [.02]	15.39 [.05]	15.50 [.03]	15.34 [.04]

Note. Standard deviation in parentheses.

ABBREVIATIONS: BL = baseline interview

-.85,  $SE = .34, p = .012$ ). Marriage was more common among white fathers than African American ( $\beta = -3.20, SE = .23, p < .001$ ) and Latino fathers ( $\beta = -1.74, SE = .24, p < .001$ ). White fathers were also more likely to have college education experience or degrees on average than African American ( $\beta = -1.95, SE = .23, p < .001$ ) and Latino fathers ( $\beta = -2.06, SE = .28, p < .001$ ). A lower proportion of white fathers had an unemployment and incarceration history than minority fathers. The ratio of mother repartnering for African American families is significantly higher than white families ( $\beta = .83, SE = .26, p = .002$ ), but there is

no significant white-Latino or black-Latino difference for it ( $\beta = .33, SE = .30, p = .267$ ). African American fathers were more likely to have a prior history of serious illness than white fathers ( $\beta=.77, SE=.26, p=.003$ ), but no significant difference exists for addiction issues across ethnic-racial groups. White mothers were generally less likely than minority mothers to encourage fathers to visit more often or deny their requests to see their children. As for paternal involvement and delinquency, White fathers showed significantly higher levels or frequencies in most types except for police-contact experience discussion. White adolescents also report significantly fewer delinquency in both waves (Y9 and Y15). For father-child discussion regarding police contact experience, each racial group did not differ substantially in the proportions of adolescents within each category. Significant black-Latino differences also emerged for some of the characteristics. For example, African American adolescents performed similarly in property delinquency as Latino adolescents but had more violent delinquency than them ( $p < .001$ ). Compared to Latino fathers, there was a higher proportion of African American fathers who were unmarried ( $p < .001$ ), didn't have jobs ( $p < .001$ ), and had prior incarceration history ( $p = .045$ ).

### Summary of Overall Results

Before proceeding to the detailed discussion of empirical results, the present study performed Poisson regression analysis with all types of paternal involvement and covariates included (including prior delinquency). It summarized all the results in Table 2 to indicate whether those findings supported the hypotheses. There were two sets of competing hypotheses awaiting examinations here. The first two hypotheses concerned whether the association between paternal involvement and adolescent

**Table 2***Summary for Results and Hypothesis Support*

Variable	All	White	Black	Hispanic/ Latino	Hypothesis support
<b>Property delinquency</b>					
Monetary/material support	-0.176 (0.278)	-1.818* (0.789)	-0.106 (0.262)	0.055 (0.548)	H2A
Communication	0.049 (0.044)	0.111 (0.095)	0.049 (0.042)	0.059 (0.086)	H2A
Shared activities	-0.009 (0.075)	0.260 (0.168)	-0.006 (0.072)	-0.058 (0.156)	H2A
Harsh discipline	-0.027 (0.044)	-0.053 (0.057)	-0.036 (0.034)	0.029 (0.093)	H2A
Extreme emotional closeness	0.041 (0.271)	-0.009 (0.565)	-0.316 (0.257)	0.043 (0.467)	H2A
Had police contact experience discussion	0.165 (0.298)	-0.311 (0.568)	0.236 (0.377)	0.090 (0.683)	H2A
<b>Hypothesis support</b>	H1A	H1B	H1A	H1A	-
<b>Violent delinquency</b>					
Monetary/material support	-0.093 (0.177)	-0.353 (0.738)	-0.299 (0.169)	0.551 (0.396)	H2B
Communication	0.089* (0.036)	0.034 (0.074)	0.030 (0.031)	0.203** (0.075)	H2A
Shared activities	-0.058 (0.058)	0.069 (0.170)	0.019 (0.047)	-0.205 (0.111)	H2A
Harsh discipline	-0.031 (0.027)	-0.027 (0.061)	-0.018 (0.025)	-0.058 (0.054)	H2A
Extreme emotional closeness	-0.144 (0.218)	-0.240 (0.561)	-0.053 (0.164)	-0.291 (0.419)	H2B
Had police contact experience discussion	0.062 (0.197)	0.008 (0.538)	0.036 (0.271)	0.258 (0.378)	H2A
<b>Hypothesis support</b>	H1B	H1A	H1A	H1B	-

Note. Standard Errors in parenthesis.

\*\*\*  $p < 0.001$ , \*\*  $p < 0.01$ , \*  $p < 0.05$

**H1A:** The association between paternal involvement and adolescent Delinquency remains the same across different types of paternal involvement

**H1B:** The association between paternal involvement and adolescent Delinquency varies by the type of paternal involvement

**H2A:** For each type of paternal involvement, its association with adolescent delinquency remains the same for white, African American, and Latino groups

**H2B:** For each type of paternal involvement, its association with adolescent delinquency is different across white, African American, and Latino group

delinquency remained the same (*Hypothesis 1a*) or varied across different types of paternal involvement (*Hypothesis 1b*). The other two hypotheses assumed that for every kind of paternal involvement, its association with adolescent delinquency remained the same (*Hypothesis 2a*) or varied across white, African American, and Latino groups (*Hypothesis 2b*). Overall, the present study showed more support for hypothesis 1a than 1b. For property delinquency, the present study only found support for hypothesis 1b within subgroup analysis of the white adolescents. Regarding violent delinquency, the present study only found support for hypothesis 1b within the overall sample and the Latino adolescents. Also, the present study found more support for hypothesis 2a than 2b. The present study found no evidence of differential effect across ethnic-racial groups when having property delinquency as the outcome. And for violent delinquency, the present study found that the impact of financial support and extreme father-child emotional closeness was not uniform across ethnic-racial groups. A detailed description of the results is shown below.

#### *The Influence of Paternal Involvement Across Different Types*

Table 3 summarizes the baseline Poisson regression results without covariates. For property delinquency, only paternal financial support showed a significant reduction effect among white adolescents ( $\beta = -1.37, SE = .67, p = .043$ ). Having no contact experience could significantly lower the level of property delinquency, especially for white ( $\beta = -1.70, SE = .54, p = .002$ ) and African American adolescents ( $\beta = -1.01, SE = .21, p < .001$ ), but the author did not find any significant difference in property delinquency between those who had discussions

**Table 3***Poisson Regression Analysis Without Covariates (N = 3300)*

Variable <sup>1</sup>	All	White	Black	Hispanic/ Latino
	$\beta$ [SE]	$\beta$ [SE]	$\beta$ [SE]	$\beta$ [SE]
<b>Property delinquency</b>				
Monetary/material support	-0.376 (0.365)	-1.368* (0.672)	-0.193 (0.276)	-0.369 (0.731)
Communication	0.063 (0.046)	0.069 (0.112)	0.053 (0.045)	0.119 (0.090)
Shared activities	-0.059 (0.083)	0.102 (0.167)	-0.050 (0.075)	-0.127 (0.173)
Harsh discipline	-0.037 (0.047)	-0.067 (0.069)	-0.050 (0.046)	-0.013 (0.081)
Extreme emotional closeness	-0.216 (0.295)	0.078 (0.594)	-0.455 (0.271)	-0.033 (0.570)
Police contact experience discussion				
Yes	0.153 (0.356)	0.003 (0.645)	0.288 (0.481)	-0.144 (0.850)
No contact	-1.039*** (0.250)	-1.709** (0.542)	-1.008*** (0.210)	-0.918 (0.582)
<b>Violent delinquency</b>				
Monetary/material support	-0.426* (0.215)	-0.685 (0.808)	-0.453** (0.165)	0.109 (0.398)
Communication	0.095* (0.038)	0.017 (0.123)	0.032 (0.039)	0.205** (0.066)
Shared activities	-0.114 (0.065)	-0.050 (0.197)	-0.021 (0.054)	-0.225 (0.155)
Harsh discipline	-0.041 (0.029)	-0.005 (0.089)	-0.030 (0.029)	-0.052 (0.051)
Extreme emotional closeness	-0.221 (0.248)	-0.228 (0.611)	-0.108 (0.199)	-0.294 (0.588)
Police contact experience discussion				
Yes	0.155 (0.239)	0.255 (0.663)	-0.041 (0.327)	0.428 (0.397)
No contact	-0.972*** (0.164)	-1.107* (0.544)	-0.800*** (0.146)	-0.972** (0.366)

*Note.* Standard errors in parenthesis.\*\*\*  $p < 0.001$ , \*\*  $p < 0.01$ , \*  $p < 0.05$ <sup>1</sup>Baseline intercept values not shown in the table.

with their father regarding the police contact experience and those who did not. For violent delinquency, paternal financial/material contributions significantly reduced its level among the overall sample ( $\beta = -.43, SE = .22, p = .050$ ) and African American adolescents ( $\beta = -.45, SE = .17, p = .007$ ). Shared activities between fathers and children were also negatively associated with violent delinquency in the overall sample, but this effect is marginally significant ( $\beta = -.11, SE = .07, p = .081$ ). Father-child communication, however, showed a significant positive association with violent delinquency for the overall sample ( $\beta = .10, SE = .04, p = .013$ ) and the Latino adolescents ( $\beta = .20, SE = .07, p = .002$ ). Having no contact experience was still significantly associated with a lower level of violent delinquency for both the whole sample and for each ethnic-racial subgroup. Still, there was no difference in violent delinquency between those who had discussions with their father regarding the police contact experience, and those who did not.

The author then included a set of covariates in the regression models and retested the main effects of paternal involvement on adolescent delinquency (See Table 4). The detailed results, including those for all the covariates, are shown in Appendix A2. Still, no paternal involvement was significantly associated with property delinquency within the overall sample, and paternal financial/material contributions only significantly reduced property delinquency for white adolescents ( $\beta = -1.82, SE = .79, p = .024$ ). The post-hoc tests indicated that the paternal financial support's reduction support was considerably more vital than the effect of father-child communication ( $F(1,649) = 5.70, p = .0172$ ), shared activities ( $F(1,649) = 5.90, p = .0154$ ), and discipline ( $F(1,649) = 4.85, p = .0280$ ), and

**Table 4**

*Adjusted Poisson Regression Analysis with All Kinds of Paternal Involvement on Adolescent Delinquency (N=3300)*

Variable <sup>1</sup>	All	White	Black	Hispanic/ Latino
	$\beta$ [SE]	$\beta$ [SE]	$\beta$ [SE]	$\beta$ [SE]
<b>Property delinquency</b>				
Monetary/material support	-0.176 (0.278)	-1.818* (0.789)	-0.106 (0.262)	0.055 (0.548)
Communication	0.049 (0.044)	0.111 (0.095)	0.049 (0.042)	0.059 (0.086)
Shared activities	-0.009 (0.075)	0.260 (0.168)	-0.006 (0.072)	-0.058 (0.156)
Harsh discipline	-0.027 (0.044)	-0.053 (0.057)	-0.036 (0.034)	0.029 (0.093)
Extreme emotional closeness	0.041 (0.271)	-0.009 (0.565)	-0.316 (0.257)	0.043 (0.467)
Police contact experience discussion				
Yes	0.165 (0.298)	-0.311 (0.568)	0.236 (0.377)	0.090 (0.683)
No contact	-1.040*** (0.179)	-1.746*** (0.431)	-0.897*** (0.186)	-0.693 (0.389)
Race/ethnicity				
Non-Hispanic Black	0.069 (0.295)	-	-	-
Hispanic/Latino	0.435 (0.355)	-	-	-
<b>Violent delinquency</b>				
Monetary/material support	-0.093 (0.177)	-0.353 (0.738)	-0.299 (0.169)	0.551 (0.396)
Communication	0.089* (0.036)	0.034 (0.074)	0.030 (0.031)	0.203** (0.075)
Shared activities	-0.058 (0.058)	0.069 (0.170)	0.019 (0.047)	-0.205 (0.111)
Harsh discipline	-0.031 (0.027)	-0.027 (0.061)	-0.018 (0.025)	-0.058 (0.054)
Extreme emotional closeness	-0.144 (0.218)	-0.240 (0.561)	-0.053 (0.164)	-0.291 (0.419)
Police contact experience discussion				
Yes	0.062 (0.197)	0.008 (0.538)	0.036 (0.271)	0.258 (0.378)
No contact	-0.883*** (0.131)	-0.898* (0.423)	-0.772*** (0.124)	-1.008** (0.323)

Variable (continued)	All	White	Black	Hispanic/ Latino
	$\beta$ [SE]	$\beta$ [SE]	$\beta$ [SE]	$\beta$ [SE]
Race/ethnicity				
Non-Hispanic Black	0.611** (0.213)	-	-	-
Hispanic/Latino	0.290 (0.237)	-	-	-

Note. Standard errors in parenthesis.

\*\*\*  $p < 0.001$ , \*\*  $p < 0.01$ , \*  $p < 0.05$

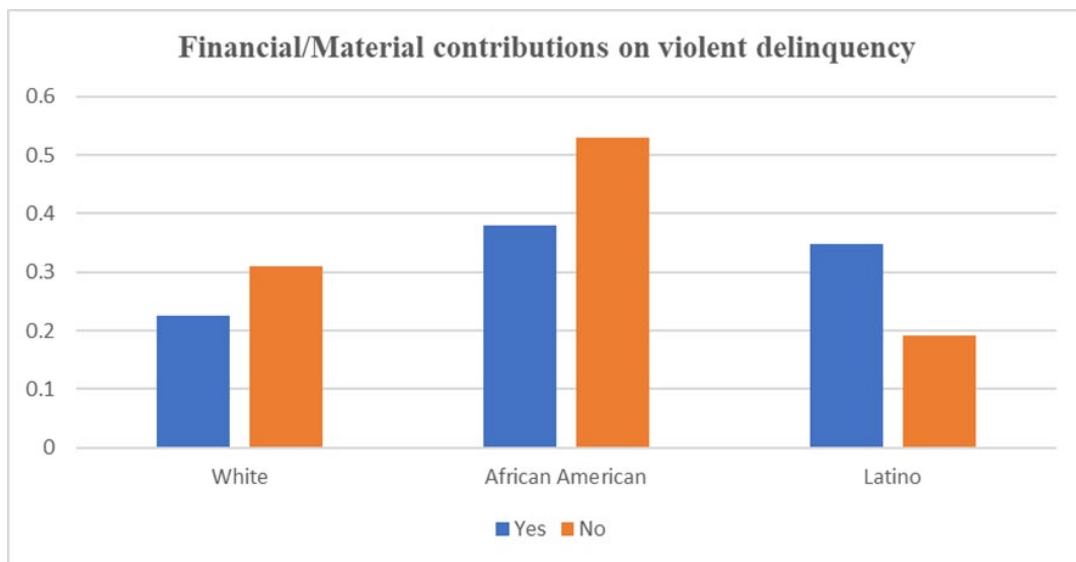
<sup>1</sup>Coefficients for covariates and intercept not shown in the table.

marginally stronger than that from emotional closeness with fathers ( $p = .0774$ ) and father-child police contact discussions ( $p = .0781$ ). Other than that, the post-hoc tests did not find any significance regarding the magnitude of different types of paternal involvement with the same model for the overall sample or African American or Latino subgroup. As for violent delinquency, after including those covariates, the negative association between paternal financial support and violent delinquency for the overall sample ( $\beta = -.09, SE = .18, p = .601$ ) and African American adolescents became statistically nonsignificant ( $\beta = -.30, SE = .17, p = .082$ ). But the significant positive association between father-child communications and violent delinquency still held for the overall sample ( $\beta = .09, SE = .04, p = .013$ ) and Latino adolescents ( $\beta = .20, SE = .07, p = .007$ ). The post-hoc tests indicated that for the overall sample, the effect of father-child communication was more potent than that from shared activities ( $F(1,3299) = 3.09, p = .0787$ ), and significantly stronger than that from the harsh paternal discipline ( $F(1,3299) = 6.10, p = .0136$ ). When limiting the sample to Latino adolescents, the author found that the effect of father-child communications showed a significantly more substantial impact than both shared activities ( $F(1,850) = 6.34, p = .0120$ ) and harsh discipline ( $F(1,850) =$

6.16,  $p = .0133$ ). But for African American adolescents, the author only found limited evidence that the effect of paternal financial support was more substantial than that from father-child communication ( $F(1,1798) = 3.68, p = .0554$ ) and shared activities ( $F(1,1798) = 2.94, p = .0867$ ).

**Figure 1**

*The Predicted Level of Violent Delinquency for Each Racial Group with/without Paternal Financial/Material Support*



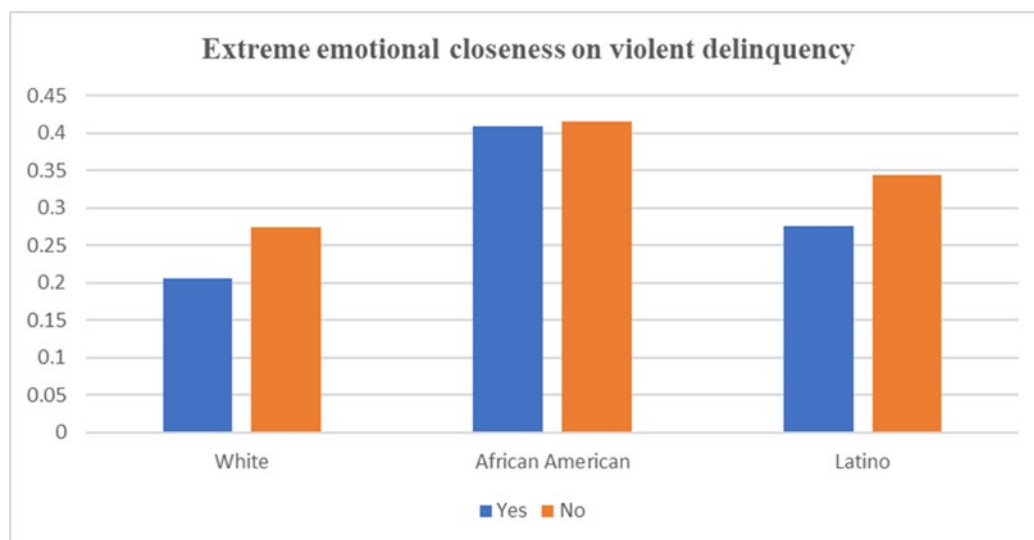
*The Racially (In)Variant Influence of Paternal Involvement*

Next, the present study proceeded to the interaction effect between those types of paternal involvement and race/ethnicity on delinquency outcomes in the full model (See Table 5). By adjusting the potential influence of various kinds of paternal involvement, the author was devoted to uncovering more nuance within their effect on delinquency. As for property delinquency, when all the interaction terms were included, the author only found minimal evidence for the significant interaction effect of paternal financial support on adolescents' property delinquency: the difference of

predicted level of property delinquency between white and Latino adolescents was marginally significant when both groups received financial support from their fathers ( $F(1,3299) = 3.00, p = .0831$ ). Since other types of paternal involvement did not show a racially variant effect in the model, the author redid the analysis by only adding the interaction terms between paternal financial support and race/ethnicity to the same model. No substantial evidence was found for any significant interaction between paternal financial support and race/ethnicity.

**Figure 2**

*The Predicted Level of Violent Delinquency for Each Racial Group with/without Extreme Father-child Emotional Closeness*



As for violent delinquency, however, the present study found significant cell mean differences in adolescents' violent delinquency based on their status of paternal financial support and extreme emotional closeness. Figure 1 shows that for those without paternal financial support, African American adolescents had a significantly higher predicted level of violent delinquency than Latino adolescents ( $F(1,3299) = 12.47, p < .001$ ), while for those receiving financial/physical support from their

**Table 5**

*Poisson Regression Analysis of Paternal Involvement on Adolescent Delinquency with Interactions (N = 3300)*

Variable <sup>1</sup>	Property delinquency		Violent delinquency	
	(1) $\beta$ [SE]	(2) $\beta$ [SE]	(3) $\beta$ [SE]	(4) $\beta$ [SE]
<b>Father involvement</b>				
Monetary/material support	-1.292* (0.659)	-0.756 (0.624)	-0.264 (0.779)	-0.142 (0.521)
Communication	0.069 (0.106)	0.049 (0.044)	0.028 (0.110)	0.085* (0.036)
Shared activities	0.154 (0.165)	-0.008 (0.075)	0.020 (0.190)	-0.055 (0.059)
Discipline	-0.038 (0.062)	-0.027 (0.043)	0.004 (0.077)	-0.032 (0.027)
Extreme emotional closeness	0.219 (0.555)	0.046 (0.268)	-0.285 (0.606)	-0.248 (0.519)
Police contact experience discussion				
Yes	0.009 (0.547)	0.181 (0.294)	0.162 (0.510)	0.104 (0.194)
No contact	-1.707*** (0.473)	-1.047*** (0.180)	-1.113** (0.413)	-0.888*** (0.127)
<b>Father's characteristics</b>				
Race/ethnicity				
Non-Hispanic Black	-0.959 (0.700)	-0.370 (0.516)	0.372 (0.794)	0.585 (0.420)
Hispanic/Latino	-1.306 (0.937)	-0.348 (0.580)	-0.674 (0.959)	-0.232 (0.485)
<b>Interaction terms</b>				
MM support	1.144 (0.689)	0.448 (0.593)	-0.065 (0.744)	-0.153 (0.525)
× AA				
MM support	1.384 (0.822)	0.913 (0.679)	0.866 (0.873)	0.615 (0.611)
× Latino				
Communication	-0.020 (0.116)	-	0.006 (0.114)	-
× AA				
Communication	0.019 (0.144)	-	0.201 (0.134)	-
× Latino				
Shared activities	-0.151 (0.180)	-	-0.001 (0.192)	-
× AA				
Shared activities	-0.272 (0.246)	-	-0.271 (0.241)	-
× Latino				
Discipline × AA	-0.010 (0.073)	-	-0.027 (0.078)	-
Discipline × Latino	0.036 (0.096)	-	-0.074 (0.088)	-

Variable (continued)	Property delinquency		Violent delinquency	
	(1) $\beta$ [SE]	(2) $\beta$ [SE]	(3) $\beta$ [SE]	(4) $\beta$ [SE]
Closeness × AA	-0.457 (0.623)	-	0.270 (0.629)	0.187 (0.523)
Closeness × Latino	0.047 (0.796)	-	0.065 (0.775)	0.029 (0.616)
Had contact discussion × AA	0.194 (0.704)	-	-0.235 (0.593)	-
Had contact discussion × Latino	0.148 (0.861)	-	0.305 (0.628)	-
No contact × AA	0.643 (0.509)	-	0.305 (0.431)	-
No contact × Latino	1.005 (0.607)	-	0.271 (0.521)	-

Note. Standard errors in parentheses.

\*\*\*  $p < 0.001$ , \*\*  $p < 0.01$ , \*  $p < 0.05$

<sup>1</sup>Coefficient and standard errors of covariates and constant are not shown here.

fathers, white adolescents had a significantly lower predicted level of violent delinquency than African American adolescents ( $F(1,3299) = 4.80, p = .0286$ ). As shown in Figure 2, for those adolescents sharing highly close father-child relationships, white adolescents also had a significantly lower predicted level of violent delinquency than African American adolescents ( $F(1,3299) = 5.22, p = .0224$ ). The present study also found some evidence that father-child communications ( $F(1,3299) = 3.29, p = .0700$ ) and shared activities ( $F(1,3299) = 2.83, p = .0928$ ) might have differential effects for African American and Latino adolescents, but the author could not reject the null hypotheses for them at the alpha level of .05. The author repeated the process above by including only the interaction terms of two types of paternal involvement (financial/material contributions, extreme emotional closeness) in models for violent delinquency. The results were the same as the previous step involving all interaction terms between each type of paternal involvement and race/ethnicity. Besides, the statistical black-white differences in

violent delinquency became nonsignificant once the author included interaction terms in those regression models.

### *Sensitivity Analysis*

In addition to examining various paternal involvement on adolescents' self-reported delinquency, this study also performed additional analyses across different settings. Firstly, the present study conducts a set of Poisson regressions to examine the separate impacts of paternal involvement on delinquency outcomes (See Appendix B1). Among those models, the primary difference was that no single type of paternal involvement presented a significant effect on property or violent delinquency without accounting for the influence of other kinds. Secondly, this study used the frequency of peer delinquency from the Y15 follow-up interview as a proxy for external criminogenic threats and redid the analysis (See Appendix B2). Again, the findings are almost identical except for one: The subgroup analysis finds the negative association between monetary/material support and property delinquency for African American adolescents to be statistically significant. This suggests that the effect of delinquent peers should be substantial, especially for African American adolescents, that its influence masks the relative contributions of paternal economic support. Thirdly, this study used negative binomial regression models on the same outcomes (See Appendix B3). The primary difference was that those models found father-child shared activities significantly related to more property delinquency for white adolescents, but instead associated with reduced levels of violent delinquency for Latino adolescents.

Fourthly, this study used the variety scale factor measuring the number of CBCL externalizing behavior problems as the alternative outcome and rerun Poisson regressions (See Appendix B4). The author replaced the prior delinquency measure with the lagged dependent variable (LDV): the variety scale factor of CBCL externalizing behavior problems from the Y9 follow-up interview. One advantage of this measure over self-reported delinquency is that both Y15 and Y9 (partially) contained the exact measurements of externalizing behavior problems over time. This allowed the author to model the changes between two waves for the outcome. Therefore, this study repeated the previous procedure by using the scoring changes of CBCL externalizing behavior problems from Y9 to Y15 follow-up interview as the outcome. Within both models, father-child shared activities became the only type of paternal involvement significantly associated with higher levels and more changes of externalizing behavioral problems. Those departures from main results could be explained by the fact that externalizing problem behaviors, though closely linked to delinquency, are not the same as delinquency, and include other non-delinquent but problematic behaviors.

In addition, this study performed analysis on the sample using listwise deletion and checked whether the results were different from those using the imputed sample (See Appendix B5). The substantive results yielded by the listwise deletion sample only were not the same as the previous ones using the imputed sample. The discrepancy of regression resulting between imputed and listwise deletion samples was partly due to performing augmented regression for perfect prediction avoidance. The regressions had the augmented data by adding several extra observations to each

predictor variable and assigning a small weight to those added observations to restrict their influence on the estimated imputation model (White et al., 2010). Also, several variables regarding paternal characteristics were either used as the imputed variables or predictors to assign the values. As a result, the present study got the imputed sample of which those paternal features and levels of paternal involvement were much different than the listwise deletion sample.

Finally, the present study compared the father's race/ethnicity to adolescents' self-reported race/ethnicity. For adolescents self-identifying as white, 91.86% ( $n = 542$ ) had their self-identified ethnic-racial identity the same as their fathers, corresponding to about 83.38% of all the white fathers in the sample. For adolescents identifying themselves as African American, 94.37% ( $n=1511$ ) reported the same ethnic-racial identity as their fathers, equaling approximately 84% of African American fathers. And for adolescents self-described as Hispanic/Latino, 86.37% ( $n = 702$ ) had the same ethnic-racial identity as their fathers, roughly matching 82.49% of Latino fathers. The author then replaced the father's race/identity with the adolescent's self-reported ethnic-racial identity in the regression models to observe whether there would be any differences (See Appendix B6). One difference was that the alternative model found a significant black-Latino difference in property delinquency among adolescents with paternal financial support: African Americans had a significantly lower level of property delinquency than Hispanic adolescents under this condition. And the cell mean difference for extreme emotional closeness became insignificant the alternative model. However, because there were more missing observations for adolescents' self-reported racial identity than father-reported

racial identity, the sample size was reduced to approximately 3,000. Therefore, the differences in those results should be interpreted with caution.

## Chapter 5: Discussion

The current study examined the relationships between various paternal involvement among adolescents and the level of their delinquency behaviors, and to what extent those involvement-delinquency connections varied based on their race/ethnicity. Using the FFCWS data, this study raised multiple hypotheses and employed multiple quantitative analytical models to reach a robust estimation of the relationship of interest. The preliminary results presented some evidence that different types of paternal involvement could play entirely different roles, depending on which racial group those adolescents come from and the delinquency type. But overall, those findings provide better support for hypothesis 1a than hypothesis 1b regarding differential effect across types: the present study only found that for white adolescents, the influence of paternal financial support was the strongest among all kinds of paternal involvement. In contrast, the impact of father-child communications on Latino adolescents' violence was more substantial than that from shared activities and harsh discipline. And there was more robust evidence for hypothesis 2a than hypothesis 2b regarding racially (in)variant effect: only two types of paternal involvement, paternal financial support, and extreme emotional closeness, showed some interaction effect for violent delinquency, but not for property delinquency.

The current findings regarding paternal financial and material contributions partially support hypotheses 2b and are consistent with prior work. Cooper and Pugh (2020) illustrated that the available family financial resources could benefit youths in various ways. With paternal financial/material contributions, fathers are more likely to keep children out of poverty, and alleviate their stress levels by lowering the

potential risks of mortality and incarceration among family members (Schreier & Chen, 2013; Turney, 2011; Umberson & Thomeer, 2020). Therefore, children are less likely to experience strain due to those adverse events or feel their fathers' contributions more directly, thus enhancing their social bonds to fathers to restrain their delinquency engagement. The current findings add to the literature by arguing that this protective effect is race-specific and vary by delinquency type. Financial support from fathers is helpful to reduce the potential risks for property delinquency. But for African American adolescents, the significant reduction effect of paternal financial/material support on violence after controlling for peer delinquency marks economic difficulty as a strong stressor for them (Yoder et al., 2016). Persistent racial inequities in all spheres of life, especially unemployment and poverty, make African American adolescents more sensitive to failing to stay in good financial shape or obtain what they expect. Those stressors then stir up their anger and encourage African American adolescents to have violence as the responses to their stressors and negative emotions (Agnew, 1992; Jang, 2007; Jang & Johnson, 2003). Therefore, paternal financial/material contributions diminish or dispel the formulation of those stressors, vastly weakening or blocking the transformation of strains and negative emotions into violent coping (Kaufman et al., 2008). Still, the author needs to point out that this measure of financial/material contributions is far from perfect. It can only show whether biological fathers paid money, gave material, or other forms of financial assistance to their children in the past. It cannot tell the amount/value or frequency of those economic contributions. Nor can it tell what those formats of financial donations mean to the adolescents (i.e., the necessary help or icing on the

cake). But these shortcomings do not overshadow the impact of fathers' financial/material contributions on their children's long-term development.

For shared activities, the present study finds consistent support for hypothesis 2a (racially invariant effect). Though scholars frequently name father-child joint activities a momentous type of paternal involvement, it can be a two-edged sword (Blazei et al., 2008; Cookston & Finlay, 2006). On the one hand, Lee and Schoppe-Sullivan (2017) argue that active engagement in joint activities can “knife off” the stable connections between prior behavior problems and later offenses, and counteract the negative effects of other adverse factors (e.g., poverty) on a child's long-term development. On the other hand, for some children, father-child activities can expose themselves to their fathers’ subtle criminogenic influence (Agnew et al., 2002; Akers & Jennings, 2019), becoming an intergenerational transmission of crime and delinquency (Besemer & Farrington, 2012; Dishion et al., 2004). The present study found weak evidence to support either side's argument, though the supplemental analysis using children’s self-reported ethnic-racial identity identified shared activities as a significant protective factor for Latino adolescents. One possible reason for the statistical insignificant findings of shared activities is that the current measure of joint activities only caught a portion of different types of collaborative activities fathers would participate in together with their children. Based on the items used, there is no way of knowing which types of father-child activities are considered more vital and under what circumstances adolescents are unable to accept their fathers’ unexplained absence from their activities, nor is there any way to know whether fathers' adequate time with their children equates to their spending most of

their time on father-child activities. The author fully acknowledges these shortcomings and expects future research to improve on this basis.

Although communicating with fathers was associated with higher risks of violence for Latino adolescents, the present study did not find its effect to be varying across ethnic-racial groups. Those findings better support hypothesis 2a (Steffensmeier et al., 2010). Contrary to the previous findings that identified father-child communication as either a significant buffer or risk factor, this study does not detect any considerable communication influence on property or violence delinquency for the other two racial groups (Ellis et al., 2003; Goncy & van Dulmen, 2012). Two possible explanations arise here. First, different types of paternal involvement, such as shared activities, paternal discipline, and even police-contact experience discussion, all involve some function of talking to children and getting feedback from them. Those overlaps between communication and other paternal involvement rub-down the exclusive influence of communication on delinquency. As a result, the more substantial impact from other paternal involvement (and covariates) can mask the effect of father-child communication on delinquency, leaving the remaining influence invariant across racial groups. Second, this measure mainly captures how often fathers negotiate with and convince adolescents of crucial decisions and listen to their thought, and how well fathers and children have idea-sharing or discussion together on important things. Therefore, this measure becomes a mixture of both the frequency and the quality of the communication between fathers and children. Its construct validity can be affected by the “compression” of two dimensions into one on the same scale. The author repeated the analysis using

frequency-only and quality-only items to measure father-child communications (results not shown here), but the results were the same. Therefore, when accounting for other paternal involvement and relevant family characteristics, the effect of communication can be similar for teenagers of different races/ethnicities.

The current study did not find any significant effect or slope difference of harsh discipline across ethnic-racial groups, which demonstrates better support for hypothesis 2a. Some extant studies confirmed the detrimental impact of harsh paternal discipline on adolescent behavioral changes (Simmons et al., 2018; Stewart, 2003). For adolescents, impatient explanations of right from wrong, combined with active punishment and verbal abuse, are highly irritating experiences that only increase resentment, provoke rebellion, and promote misbehavior (Farrington, 1989; Hoeve et al., 2009). Some studies pointed to another possibility: harsh paternal discipline, though annoying for Latino adolescents, can serve as an accommodative strategy for safety enhancement in turbulent neighborhoods with prevalent violence (Caughy & Franzini, 2005; Gorman-Smith et al., 2000; Julian et al., 1994). However, the current study found no evidence for both sides. When accounting for influence from other types of paternal involvement, the effect of harsh discipline remained nonsignificant and similar across different racial groups (White et al., 2019).

The primary findings indicated that maintaining close relationships with fathers had a stronger negative association with violent delinquency among white adolescents than it did among African American adolescents. Therefore, the current findings partially support hypothesis 2b. These findings are in line with those from extant studies. Multiple studies find consistent support of negative relationships

between emotional closeness adolescents' delinquent behaviors (Flouri & Buchanan, 2003; Harris et al., 1998; Rankin & Kern, 1994). Intimate relationships with their children offer fathers more opportunities to act as family teachers and role models to transmit conventional values to their children and establish an appropriate code of conduct (Hirschi, 1969; Johnson, 1987). However, it is also possible that the extreme emotional closeness on adolescent delinquency can act both as a predictor and consequence of other paternal involvement (Brown et al., 2012; 2018; Williams & Kelly, 2005). As most paternal involvement measures come from the Y9 follow-up interview, the author cannot separate the temporal order of emotional closeness from other paternal involvement. The unique effect of emotional intimacy may be concealed under the interference of other paternal involvement.

The current study included the father-child police-contact experience discussion as the additional type of paternal involvement. Having no police contact experience was significantly associated with a lower delinquency level in the present sample (Ridgeway, 2007). Further, the author didn't find any evidence of connecting those father-child discussions to reduced levels of property or violent delinquency for adolescents. Unnever and Gabbidon (2011) considered measures like father-child police contact experience discussion could, to some extent, serve as an effective strategy for minority fathers to carry out racial socialization process. The father-child discussions on such experience give fathers the opportunities to teach their children their understanding of dealing with police contact (e.g., answering police officers' questions, responding to search warrants, or reporting criminal cases to the police station). They can tell their children how to deal with racial discrimination and its

adverse effects on themselves (Ridgeway & MacDonald, 2009; Unnever et al., 2016). The father-child conversations also help the children overcome any negative feelings caused by the prior unpleasant encounter with the police, thus making them less likely to convert their negative emotions into violence (Piquero & Sealock, 2010). But, surprisingly, the white and racial minority fathers and adolescents in the analytic sample did not differ substantially in their prior experience of police contact or father-child discussions on this topic. Also, besides being stopped by the police, this study could not take other interactional opportunities children have with the police into accounts, such as incident reporting, arrest, and service referral. The current measure is not ideal, but probably the best measure the author can get from the FFCWS dataset regarding whether children had any discussion about their experience of contact with police. This measure may reflect more adolescent-initiated discussions on the topic than father-initiated discussions. It also cannot tell the time, duration, and frequency of those discussions in the past. Future studies can rely on better measures and expand the scope of racialized experience discussion to explore how the racial socialization process works for fathers and children from minority families.

The author notes some additional limitations of the study. First, a reverse causality between paternal involvement and children's behavior problem is suspected. Although most studies have supported the relationship we proposed in this study, one may also root for the reverse causation – fathers who feel that their children do not respect them may stop engaging with them entirely (Coley and Medeiro, 2007). Instead of proactively influencing adolescents' behavior through their involvement, fathers may passively change their levels or the ways of involvement as the responses

to adolescents' deviance and delinquency (Hawkins et al., 2007). The results here should be interpreted with great caution: the model controlling for prior delinquency, using panel data, suggests more association rather than causation here. Secondly, the generalizability of this study is also a concern. This study only uses the city-level probability survey weight to extend the findings to the original birth samples among 20 cities. Some of those cities containing respondents with more disadvantages in multiple aspects, such as socioeconomic status, employment, and involvement in the criminal justice system. The results, therefore, cannot be generalizable to either the occurrence of the births occurring in large U.S. cities or even all the births with the whole U.S. nation. Thirdly, behavior problems may begin at a much earlier stage of growing up. By the time a child reaches adolescence, the links with paternal involvement may have blurred or gotten entangled with other sources of stressors or social control. The author calls for more longitudinal models with a larger sample size, more extended data collection periods, measurement of additional confounding factors, changes in both involvement and delinquency overtime to help researchers reach more persuasive and conclusive conclusions on this topic.

Taken together, the findings of the current study suggest that while certain types of paternal involvement can perform differently across racial groups on property or violent delinquency, most others, however, work similarly regardless of their race/ethnicity and delinquency type. This study extends our knowledge by exploring the role of racial/ethnicity within the coinstantaneous effect of various paternal involvement on adolescent delinquency. Although certain kinds of paternal involvement are proven to be effective under specific circumstances, it is undeniable that family efforts cannot simply erase the systematic disadvantages experienced by

minority adolescents. Rather than putting all responsibilities on the shoulders of individuals and families, it calls for structural changes at all levels, addressing racial inequality, fostering equity, and ultimately achieving social justice.

# Appendices

## Appendix A

**Table A1**

*Bivariate Poisson Regression Analysis without Covariates (N = 3300)*

Variable <sup>1</sup>	All $\beta$ [SE]	White $\beta$ [SE]	Black $\beta$ [SE]	Hispanic/Latino $\beta$ [SE]
<b>Property delinquency</b>				
Monetary/material support	-.601* (.281)	-1.062 (.691)	-.476 (-.992)	-.371 (.652)
Communication	-.042 (.036)	.006 (.081)	-.051 (.039)	-.002 (.077)
Shared activities	-.114* (.058)	.022 (.129)	-.116* (.058)	-.080 (.116)
Harsh discipline	-.045 (.040)	-.035 (.067)	-.057 (.033)	-.013 (.077)
Extreme emotional closeness	-.364 (.238)	.002 (.511)	-.470 (.251)	-.248 (.490)
Police contact experience discussion				
Yes	-.080 (.380)	.148 (.659)	-.051 (.502)	-.099 (.855)
No contact	-1.145*** (.275)	-1.534** (.538)	-1.065*** (.235)	-.955 (.667)
<b>Violent delinquency</b>				
Monetary/material support	-.710*** (.156)	-.891 (.561)	-.552*** (.143)	-.102 (.381)
Communication	-.045 (.922)	-.067 (.084)	-.033 (.024)	.029 (.044)
Shared activities	-.139*** (.033)	-.115 (.125)	-.083* (.034)	-.089 (.062)
Harsh discipline	-.055* (.024)	-.002 (.078)	-.045* (.022)	-.028 (.047)
Extreme emotional closeness	-.412** (.159)	-.443 (.478)	-.239 (.155)	-.338 (.376)
Police contact experience discussion				
Yes	-.105 (.256)	.161 (.629)	-.289 (.353)	.435 (.421)
No contact	-1.098*** (.179)	-1.152* (.534)	-.851 (.157)	-1.027* (.434)

Note. Standard errors in parenthesis.

\*\*\*  $p < 0.001$ , \*\*  $p < 0.01$ , \*  $p < 0.05$

<sup>1</sup> Baseline intercept values not shown in the table.

**Table A2***Poisson Regression Analysis with All Kinds of Paternal Involvement and Covariates on Adolescent Delinquency (N=3300)*

Variable	Property delinquency				Violent delinquency			
	All	White	Black	Hispanic/ Latino	All	White	Black	Hispanic/ Latino
<b>Father involvement</b>								
Monetary/material support	-0.176 (0.278)	-1.818* (0.789)	-0.106 (0.262)	0.055 (0.548)	-0.093 (0.177)	-0.353 (0.738)	-0.299 (0.169)	0.551 (0.396)
Communication	0.049 (0.044)	0.111 (0.095)	0.049 (0.042)	0.059 (0.086)	0.089* (0.036)	0.034 (0.074)	0.030 (0.031)	0.203** (0.075)
Shared activities	-0.009 (0.075)	0.260 (0.168)	-0.006 (0.072)	-0.058 (0.156)	-0.058 (0.058)	0.069 (0.170)	0.019 (0.047)	-0.205 (0.111)
Discipline	-0.027 (0.044)	-0.053 (0.057)	-0.036 (0.034)	0.029 (0.093)	-0.031 (0.027)	-0.027 (0.061)	-0.018 (0.025)	-0.058 (0.054)
Extreme emotional closeness	0.041 (0.271)	-0.009 (0.565)	-0.316 (0.257)	0.043 (0.467)	-0.144 (0.218)	-0.240 (0.561)	-0.053 (0.164)	-0.291 (0.419)
Police contact experience discussion								
Yes	0.165 (0.298)	-0.311 (0.568)	0.236 (0.377)	0.090 (0.683)	0.062 (0.197)	0.008 (0.538)	0.036 (0.271)	0.258 (0.378)
No contact	-1.040*** (0.179)	-1.746*** (0.431)	-0.897*** (0.186)	-0.693 (0.389)	-0.883*** (0.131)	-0.898* (0.423)	-0.772*** (0.124)	-1.008** (0.323)
<b>Father's characteristics</b>								
Race/ethnicity								
Non-Hispanic Black	0.069 (0.295)	-	-	-	0.611** (0.213)	-	-	-
Hispanic/Latino	0.435 (0.355)	-	-	-	0.290 (0.237)	-	-	-
Residential status	-0.220 (0.291)	0.323 (0.518)	-0.289 (0.249)	-0.493 (0.518)	-0.081 (0.199)	-0.116 (0.460)	0.006 (0.181)	-0.380 (0.365)
Educational level								
High school or GED	0.368 (0.214)	-0.179 (0.544)	-0.174 (0.180)	0.636 (0.362)	0.229 (0.150)	0.736 (0.403)	0.053 (0.132)	0.412 (0.263)

	College education/degree	-0.016 (0.279)	-1.539* (0.697)	0.198 (0.250)	0.120 (0.558)	-0.479* (0.191)	-0.710 (0.555)	-0.255 (0.196)	-0.529 (0.405)
Age		0.048** (0.017)	0.116*** (0.035)	0.036* (0.017)	0.052 (0.040)	0.029* (0.013)	0.050 (0.033)	0.020 (0.012)	0.053 (0.032)
Income-to-poverty ratio		-0.015 (0.038)	-0.042 (0.069)	-0.080 (0.066)	0.082 (0.074)	-0.025 (0.028)	-0.055 (0.053)	-0.042 (0.030)	0.057 (0.097)
Unemployed		-0.186 (0.244)	-0.493 (0.526)	-0.239 (0.267)	-0.358 (0.535)	0.055 (0.162)	0.145 (0.495)	0.050 (0.151)	0.027 (0.386)
Incarceration history		0.284 (0.198)	0.380 (0.601)	0.331 (0.192)	0.373 (0.372)	0.181 (0.132)	0.032 (0.413)	0.289* (0.127)	0.068 (0.254)
History of serious illness		0.024 (0.202)	-0.112 (0.388)	-0.109 (0.199)	0.207 (0.356)	0.128 (0.159)	0.373 (0.341)	-0.073 (0.129)	0.253 (0.292)
History of serious addiction		-0.111 (0.245)	-0.039 (0.665)	-0.041 (0.236)	-0.037 (0.506)	-0.130 (0.162)	-0.557 (0.561)	-0.018 (0.128)	-0.046 (0.342)
Parenting stress		-0.066 (0.060)	-0.131 (0.086)	0.056 (0.040)	-0.085 (0.134)	-0.035 (0.035)	-0.048 (0.086)	-0.002 (0.027)	-0.025 (0.065)
<b>Mother's characteristics</b>									
Educational level									
	High school or GED	-0.258 (0.241)	-0.459 (0.541)	-0.177 (0.211)	-0.012 (0.421)	-0.286* (0.143)	-1.015** (0.332)	-0.181 (0.136)	-0.330 (0.294)
	College education/degree	0.088 (0.291)	0.127 (0.604)	0.259 (0.251)	0.073 (0.577)	-0.184 (0.180)	-0.946* (0.464)	-0.052 (0.155)	0.069 (0.388)
Age		-0.042* (0.021)	-0.129** (0.045)	-0.033 (0.021)	-0.032 (0.040)	-0.033* (0.016)	-0.111** (0.040)	-0.011 (0.015)	-0.062 (0.033)
Income-to-poverty ratio		-0.013 (0.054)	0.023 (0.078)	-0.159 (0.142)	0.006 (0.082)	-0.006 (0.054)	0.100* (0.040)	-0.049 (0.058)	-0.228 (0.165)
History of serious illness		0.004 (0.237)	-0.126 (0.354)	-0.099 (0.203)	0.211 (0.472)	0.051 (0.158)	-0.244 (0.406)	0.013 (0.135)	0.026 (0.324)
History of serious addiction		0.179 (0.284)	0.808 (0.626)	0.302 (0.370)	-0.682 (0.620)	0.414 (0.263)	0.455 (0.492)	0.027 (0.245)	1.149* (0.493)
Parenting stress		-0.011 (0.032)	-0.043 (0.073)	0.003 (0.037)	-0.029 (0.064)	-0.028 (0.023)	0.025 (0.064)	0.010 (0.021)	-0.090* (0.045)
Extreme emotional closeness		-0.463* (0.208)	-0.157 (0.435)	-0.472* (0.220)	-0.414 (0.355)	0.095 (0.157)	0.151 (0.443)	0.100 (0.153)	0.294 (0.288)
<b>Parents' relationship</b>									
Parents married		0.115	1.257	-0.101	0.302	-0.105	-0.357	-0.137	0.256

	(0.266)	(0.757)	(0.309)	(0.453)	(0.200)	(0.455)	(0.202)	(0.353)
Parents cohabiting	-0.069	0.714	-0.196	0.074	-0.125	-0.175	-0.323*	0.153
	(0.176)	(0.618)	(0.203)	(0.351)	(0.117)	(0.403)	(0.127)	(0.284)
Mother repartnering	0.312	-0.227	0.185	0.464	0.180	-0.057	0.357**	0.135
	(0.226)	(0.366)	(0.191)	(0.359)	(0.133)	(0.305)	(0.128)	(0.275)
Ever ask fathers for more visit	0.186	0.077	0.014	0.416	0.159	-0.256	-0.102	0.352
	(0.197)	(0.465)	(0.180)	(0.361)	(0.144)	(0.363)	(0.122)	(0.315)
Ever refuse to let fathers see the kid	-0.295	-0.982	0.049	-1.691	-0.326	-0.802	-0.117	-0.856
	(0.372)	(0.773)	(0.314)	(1.002)	(0.263)	(0.648)	(0.210)	(0.677)
<b>Adolescent's characteristics</b>								
Boys	0.184	0.389	0.080	0.458	0.427**	1.234***	0.172	0.853**
	(0.210)	(0.401)	(0.194)	(0.446)	(0.136)	(0.346)	(0.123)	(0.308)
Age	0.174	0.436*	-0.066	0.189	-0.053	0.264	-0.020	-0.340
	(0.108)	(0.213)	(0.133)	(0.196)	(0.087)	(0.186)	(0.081)	(0.179)
<b>Lagged outcome</b>								
Prior delinquency	0.107*	0.350***	0.166***	0.086	0.045	0.302***	0.085***	0.015
	(0.042)	(0.089)	(0.034)	(0.068)	(0.036)	(0.077)	(0.025)	(0.057)

Note. Standard errors in parentheses, and intercept values not shown in the table.

\*\*\*  $p < 0.001$ , \*\*  $p < 0.01$ , \*  $p < 0.05$

## Appendix B

**Table B1**

*Separate Poisson Regression Analysis with Covariates (N = 3300)*

Variable <sup>1</sup>	All $\beta$ [SE]	White $\beta$ [SE]	Black $\beta$ [SE]	Hispanic/ Latino $\beta$ [SE]
<b>Property delinquency</b>				
Monetary/material support	-0.154 (0.270)	-1.320 (0.809)	-0.161 (0.248)	0.200 (0.530)
Communication	0.025 (0.032)	0.048 (0.078)	-0.002 (0.035)	0.052 (0.069)
Shared activities	0.001 (0.054)	0.174 (0.119)	-0.027 (0.054)	0.014 (0.111)
Harsh discipline	-0.015 (0.041)	-0.035 (0.058)	-0.032 (0.036)	0.032 (0.073)
Extreme emotional closeness	0.122 (0.237)	0.492 (0.537)	-0.176 (0.234)	0.088 (0.475)
Police contact experience discussion				
Yes	0.164 (0.293)	-0.045 (0.550)	0.178 (0.397)	0.041 (0.649)
No contact	-1.033*** (0.177)	-1.565*** (0.438)	-0.898*** (0.184)	-0.737* (0.349)
<b>Violent delinquency</b>				
Monetary/material support	-0.127 (0.154)	-0.275 (0.587)	-0.254 (0.159)	0.299 (0.377)
Communication	0.027 (0.021)	-0.004 (0.070)	0.010 (0.020)	0.059 (0.046)
Shared activities	-0.027 (0.037)	0.021 (0.124)	-0.005 (0.032)	-0.070 (0.075)
Harsh discipline	-0.020 (0.026)	-0.017 (0.058)	-0.014 (0.022)	-0.024 (0.052)
Extreme emotional closeness	-0.020 (0.163)	-0.152 (0.496)	0.021 (0.131)	-0.235 (0.332)
Police contact experience discussion				
Yes	0.023 (0.202)	0.065 (0.517)	0.005 (0.274)	-0.030 (0.420)
No contact	-0.882*** (0.125)	-0.793 (0.406)	-0.770*** (0.122)	-1.193*** (0.306)

*Note.* Standard errors in parenthesis.

\*\*\*  $p < 0.001$ , \*\*  $p < 0.01$ , \*  $p < 0.05$

<sup>1</sup>Coefficients for covariates and intercept not shown in the table.

**Table B2**

*Poisson Regression Analysis with Peer Delinquency as the Additional Covariate (N = 3300)*

Variable <sup>1</sup>	All $\beta$ [SE]	White $\beta$ [SE]	Black $\beta$ [SE]	Hispanic/ Latino $\beta$ [SE]
<b>Property delinquency</b>				
Monetary/material support	-0.478* (0.239)	-1.930** (0.618)	-0.225 (0.210)	-0.608 (0.527)
Communication	0.074 (0.044)	0.066 (0.080)	0.062 (0.041)	0.112 (0.089)
Shared activities	-0.041 (0.064)	0.196 (0.134)	-0.016 (0.062)	-0.102 (0.114)
Harsh discipline	-0.034 (0.030)	-0.064 (0.049)	-0.025 (0.026)	-0.040 (0.076)
Extreme emotional closeness	-0.009 (0.226)	0.004 (0.517)	-0.286 (0.229)	-0.178 (0.354)
Police contact experience discussion				
Yes	0.214 (0.267)	0.537 (0.570)	0.311 (0.277)	-0.637 (0.649)
No contact	-0.635*** (0.181)	-0.918 (0.552)	-0.495** (0.172)	-0.555 (0.365)
Race/ethnicity				
Non-Hispanic Black	0.022 (0.292)	-	-	-
Hispanic/Latino	0.315 (0.343)	-	-	-
Peer delinquency	0.205*** (0.012)	0.340*** (0.034)	0.185*** (0.015)	0.253*** (0.034)
<b>Violent delinquency</b>				
Monetary/material support	-0.204 (0.176)	-0.332 (0.703)	-0.378* (0.158)	0.394 (0.423)
Communication	0.096** (0.035)	0.043 (0.084)	0.041 (0.027)	0.206** (0.077)
Shared activities	-0.069 (0.058)	0.035 (0.177)	0.002 (0.042)	-0.198 (0.104)
Harsh discipline	-0.028 (0.024)	-0.028 (0.069)	-0.009 (0.018)	-0.089 (0.049)
Extreme emotional closeness	-0.136 (0.214)	-0.188 (0.614)	-0.018 (0.151)	-0.325 (0.372)
Police contact experience discussion				
Yes	0.080 (0.172)	0.499 (0.554)	0.087 (0.189)	0.104 (0.396)
No contact	-0.674*** (0.122)	-0.306 (0.481)	-0.560*** (0.116)	-0.968** (0.301)
Race/ethnicity				
Non-Hispanic Black	0.616** (0.202)	-	-	-
Hispanic/Latino	0.271 (0.230)	-	-	-
Peer delinquency	0.118***	0.168***	0.113***	0.119***

(0.009) (0.036) (0.010) (0.023)

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*Note.* Standard errors in parenthesis.

\*\*\*  $p < 0.001$ , \*\*  $p < 0.01$ , \*  $p < 0.05$

<sup>1</sup>Coefficients for other covariates and intercept not shown in the table.

**Table B3***Negative Binomial Regressions with Covariates (N = 3300)*

Variable <sup>1</sup>	All $\beta$ [SE]	White $\beta$ [SE]	Black $\beta$ [SE]	Hispanic/ Latino $\beta$ [SE]
<b>Property delinquency</b>				
Monetary/material support	-0.128 (0.291)	-1.835* (0.733)	-0.065 (0.291)	0.343 (0.668)
Communication	0.067 (0.045)	0.028 (0.094)	0.061 (0.045)	0.114 (0.092)
Shared activities	-0.021 (0.074)	0.363* (0.171)	-0.017 (0.069)	-0.115 (0.139)
Harsh discipline	-0.022 (0.040)	-0.083 (0.074)	-0.033 (0.031)	0.027 (0.076)
Extreme emotional closeness	0.038 (0.263)	-0.044 (0.679)	-0.292 (0.254)	0.041 (0.472)
Police contact experience discussion				
Yes	0.054 (0.359)	-0.427 (0.673)	0.110 (0.402)	-0.140 (0.705)
No contact	-1.133*** (0.207)	-2.301*** (0.546)	-0.972*** (0.199)	-0.740 (0.469)
Race/ethnicity				
Non-Hispanic	0.230 (0.287)	-	-	-
Black				
Hispanic/Latino	0.637 (0.335)	-	-	-
<b>Violent delinquency</b>				
Monetary/material support	-0.102 (0.200)	-0.375 (0.728)	-0.322 (0.173)	0.509 (0.468)
Communication	0.094* (0.039)	0.054 (0.090)	0.028 (0.032)	0.216** (0.076)
Shared activities	-0.064 (0.061)	0.058 (0.181)	0.025 (0.047)	-0.222* (0.107)
Harsh discipline	-0.032 (0.028)	-0.035 (0.071)	-0.019 (0.024)	-0.065 (0.053)
Extreme emotional closeness	-0.183 (0.226)	-0.336 (0.581)	-0.059 (0.165)	-0.321 (0.418)
Police contact experience discussion				
Yes	0.073 (0.215)	0.022 (0.598)	0.022 (0.274)	0.327 (0.434)
No contact	-0.925*** (0.139)	-0.999* (0.474)	-0.806*** (0.128)	-1.112*** (0.331)
Race/ethnicity				
Non-Hispanic	0.681*** (0.203)	-	-	-
Black				
Hispanic/Latino	0.308 (0.232)	-	-	-

*Note.* Standard errors in parenthesis.\*\*\*  $p < 0.001$ , \*\*  $p < 0.01$ , \*  $p < 0.05$ <sup>1</sup>Coefficients for covariates and intercept not shown in the table.

**Table B4***Poisson Regression Analysis using Externalizing Behavior Scale (N =3300)*

Variable <sup>1</sup>	All $\beta$ [SE]	White $\beta$ [SE]	Black $\beta$ [SE]	Hispanic/ Latino $\beta$ [SE]
<b>Property delinquency</b>				
Monetary/material support	-0.050 (0.162)	-0.180 (0.246)	-0.169 (0.114)	0.086 (0.343)
Communication	-0.006 (0.024)	0.013 (0.043)	-0.032 (0.019)	-0.008 (0.040)
Shared activities	0.000 (0.037)	-0.044 (0.072)	0.057* (0.023)	-0.021 (0.060)
Harsh discipline	0.010 (0.012)	0.010 (0.023)	-0.009 (0.013)	0.052 (0.030)
Extreme emotional closeness	-0.053 (0.120)	-0.053 (0.180)	0.049 (0.106)	-0.115 (0.193)
Police contact experience discussion				
Yes	0.001 (0.137)	-0.148 (0.195)	-0.096 (0.149)	0.462 (0.361)
No contact	-0.148 (0.112)	-0.425* (0.169)	-0.261** (0.093)	0.130 (0.265)
Race/ethnicity				
Non-Hispanic	0.062 (0.110)	-	-	-
Black	-0.014 (0.135)	-	-	-
Hispanic/Latino				
<b>Violent delinquency</b>				
Monetary/material support	-0.104 (0.836)	-0.669 (1.187)	-0.816 (0.581)	1.063 (1.953)
Communication	-0.034 (0.073)	0.104 (0.119)	-0.121 (0.078)	-0.064 (0.117)
Shared activities	0.004 (0.125)	-0.059 (0.231)	0.242** (0.092)	-0.188 (0.211)
Harsh discipline	-0.026 (0.046)	0.005 (0.081)	-0.029 (0.045)	0.035 (0.097)
Extreme emotional closeness	0.252 (0.367)	-0.266 (0.572)	0.190 (0.430)	0.605 (0.645)
Police contact experience discussion				
Yes	-0.238 (0.800)	-0.481 (1.028)	-0.766 (0.931)	1.575 (1.918)
No contact	-0.094 (0.598)	-0.368 (0.859)	-1.076* (0.518)	1.479 (1.422)
Race/ethnicity				
Non-Hispanic	0.444 (0.426)	-	-	-
Black	0.187 (0.464)	-	-	-
Hispanic/Latino				

*Note.* Standard errors in parenthesis.\*\*\*  $p < 0.001$ , \*\*  $p < 0.01$ , \*  $p < 0.05$ <sup>1</sup>Coefficients for covariates and intercept not shown in the table.

**Table B5***Poisson Regression Analysis using Listwise Deletion Sample (N = 1437)*

Variable <sup>1</sup>	All $\beta$ [SE]	White $\beta$ [SE]	Black $\beta$ [SE]	Hispanic/ Latino $\beta$ [SE]
<b>Property delinquency</b>				
Monetary/material support	-0.118 (0.291)	-2.294 (1.397)	-0.137 (0.294)	-0.400 (0.660)
Communication	0.011 (0.050)	0.093 (0.082)	0.041 (0.063)	0.094 (0.102)
Shared activities	-0.008 (0.084)	0.259 (0.183)	-0.066 (0.080)	0.134 (0.135)
Harsh discipline	-0.025 (0.049)	-0.038 (0.080)	0.024 (0.034)	-0.059 (0.116)
Extreme emotional closeness	-0.030 (0.292)	0.025 (0.793)	-0.572 (0.379)	-0.719 (0.590)
Police contact experience discussion				
Yes	0.289 (0.405)	0.441 (0.688)	0.179 (0.443)	-0.708 (0.891)
No contact	-0.782** (0.300)	-0.660 (0.579)	-0.756** (0.292)	-1.178* (0.542)
Race/ethnicity				
Non-Hispanic	0.209 (0.435)	-	-	-
Black	0.804 (0.551)	-	-	-
Hispanic/Latino				
<b>Violent delinquency</b>				
Monetary/material support	-0.294 (0.266)	0.778 (1.196)	-0.639** (0.228)	0.358 (0.797)
Communication	-0.007 (0.040)	0.013 (0.096)	-0.080 (0.045)	0.080 (0.093)
Shared activities	-0.014 (0.069)	0.077 (0.181)	0.103 (0.059)	-0.097 (0.127)
Harsh discipline	-0.043 (0.034)	-0.064 (0.067)	-0.005 (0.032)	-0.136 (0.079)
Extreme emotional closeness	0.252 (0.255)	-1.099 (0.610)	0.097 (0.251)	0.319 (0.597)
Police contact experience discussion				
Yes	0.090 (0.277)	-0.203 (0.637)	-0.082 (0.280)	-0.227 (0.590)
No contact	-0.858*** (0.188)	-0.832 (0.528)	-0.820*** (0.191)	-1.752*** (0.433)
Race/ethnicity				
Non-Hispanic	0.367 (0.274)	-	-	-
Black	0.121 (0.303)	-	-	-
Hispanic/Latino				

*Note.* Standard errors in parenthesis.\*\*\*  $p < 0.001$ , \*\*  $p < 0.01$ , \*  $p < 0.05$ <sup>1</sup>Coefficients for covariates and intercept not shown in the table.

**Table B6***Poisson Regression Analysis using Child Self-reported Race/Ethnicity (N = 3004)*

Variable <sup>1</sup>	All $\beta$ [SE]	White $\beta$ [SE]	Black $\beta$ [SE]	Hispanic/Latino $\beta$ [SE]
<b>Property delinquency</b>				
Monetary/material support	-0.186 (0.284)	-1.638* (0.777)	-0.199 (0.242)	0.205 (0.607)
Communication	0.058 (0.046)	0.056 (0.086)	0.046 (0.046)	0.085 (0.077)
Shared activities	-0.035 (0.080)	0.221 (0.161)	-0.044 (0.070)	-0.081 (0.156)
Harsh discipline	0.005 (0.043)	-0.038 (0.067)	0.003 (0.030)	0.020 (0.094)
Extreme emotional closeness	0.040 (0.284)	-0.140 (0.543)	-0.181 (0.294)	0.113 (0.418)
Police contact experience discussion				
Yes	-0.152 (0.341)	-0.290 (0.560)	-0.396 (0.354)	-1.035 (0.684)
No contact	-1.062*** (0.186)	-1.659*** (0.449)	-0.777*** (0.190)	-0.860* (0.361)
Adolescent Race/ethnicity				
Non-Hispanic Black	-0.223 (0.323)	-	-	-
Hispanic/Latino	0.384 (0.376)	-	-	-
<b>Violent delinquency</b>				
Monetary/material support	-0.029 (0.193)	-0.342 (0.684)	-0.336 (0.185)	0.647 (0.372)
Communication	0.093* (0.039)	0.051 (0.065)	0.017 (0.036)	0.174** (0.061)
Shared activities	-0.077 (0.063)	0.014 (0.157)	0.034 (0.052)	-0.252** (0.098)
Harsh discipline	-0.032 (0.028)	-0.041 (0.068)	-0.021 (0.025)	-0.039 (0.043)
Extreme emotional closeness	-0.173 (0.241)	-0.223 (0.579)	-0.001 (0.192)	-0.273 (0.353)
Police contact experience discussion				
Yes	-0.171 (0.207)	-0.014 (0.569)	-0.336 (0.255)	-0.104 (0.414)
No contact	-0.840*** (0.131)	-0.895* (0.401)	-0.686*** (0.126)	-0.969*** (0.279)
Adolescent Race/ethnicity				
Non-Hispanic Black	0.327 (0.203)	-	-	-
Hispanic/Latino	0.163 (0.238)	-	-	-

Note. Standard errors in parenthesis. \*\*\*  $p < 0.001$ , \*\*  $p < 0.01$ , \*  $p < 0.05$

<sup>1</sup>Coefficients for covariates and intercept not shown in the table.

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