Gender and race differences in early adolescent delinquency

Daphne C. Hernandez

Gerald R. Ford School of Public Policy & National Poverty Center
University of Michigan
1015 E. Huron Street
Ann Arbor, MI 48104
daphneh@umich.edu
p: 734-615-4937
f: 734-615-8047

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Abstract

This study focuses on gender and race differences in the correlates of delinquency among 4,070 adolescents, ages 12 to 14. Individual, family, and neighborhood factors were found salient in predicting delinquency among male, female, White, and Black and Hispanic adolescents. In regards to gender differences and involvement in minor delinquency, maternal unemployment is a marginal risk factor for males, while mother-child relationships is a protective factor for females. Living in a single parent household and being exposed to violence are greater risk factors for White adolescents than for Black and Hispanic adolescents. However, family routines protect White adolescents from engaging in minor delinquency more than Black and Hispanic adolescents. In regards to major delinquency, being female is a marginal risk factor for Black and Hispanic adolescents compared to White adolescents, while experiencing violence is a greater risk factor for White adolescents compared to Black and Hispanic adolescents.

KEYWORDS: delinquency, gender, race, adolescence, NLSY97

Most research on delinquency and antisocial behavior has focused primarily on males and racial and ethnic subsets of youth from particular cultural and ecological contexts (e.g., poverty, single-parent households). Theories of antisocial behavior (e.g., Moffitt, 1993; Patterson, DeBaryshe, Ramsey, 1989) tend to be based on male behavior, as males display greater levels of aggression since early childhood compared to females (Fabes & Eisenberg, 1992; Maccoby & Jacklin, 1980). However, with recent increases in female crime and arrest (Snyder, 1997), some researchers have examined differences in aggression among males and females (Crick, 1995; Crick & Grotpeter, 1995; Moretti, Holland, & McKay, 2001). Researchers are now analyzing the similarities and differences in the correlates of delinquency among females and males (e.g., Blum, Ireland, & Blum, 2003; Budnick & Shields-Fletcher, 1998).

There are also gaps in the research exploring how the correlates of delinquency differ across race and ethnic groups. Although numerous studies on delinquency are either: (1) based on minority samples or (2) control for race and ethnicity, models are usually not assessed and compared separately by race and ethnicity.

This study examines several issues concerning the correlates of early adolescent delinquency: (1) How individual, family and neighborhood processes are related to engagement in delinquency for early adolescents and by female, male, white, and minority adolescents. (2) How the correlates of delinquency predict engagement in minor and major delinquency for early adolescents. (3) How the correlates of minor and major delinquency significantly differ by gender and race.

Research on the Correlates of Delinquency

Previous research has associated children and adolescent engagement in delinquent activities with individual and household characteristics. As children age into adolescence, they

are more likely to engage in delinquent activities (Stahl, et al., 1999). Problem behavior is higher among children and adolescents reared in single-parent homes (Demuth & Brown, 2004; Manning, 2003), in households where mothers are less educated (Rodgers, 2002; Wickrama, 2003), and for those whose parents experience unemployment (Dunifon, 1998). Household poverty has also been shown to be a precursor to delinquent and antisocial behavior (Sampson & Laub, 1994).

Traditional psychological models also assess family processes, especially the relationships between mothers and their children. Studies of caregiver and child attachment (Bolwby, 1970; 1989) have shown that strong emotional attachments with parents can have long term influences on social competence and emotional adjustment (Armsden, McCauley, Greenberg, Burke, & Mitchell, 1990; Kenny & Gallagher, 2002). Strong family relationships can provide a base for healthy development and exploration, and thus deter adolescents from poor internalizing and externalizing behaviors, suggesting that parents provide important support, despite strong peer influence in adolescence. Other studies have found that consistent family routines served as a protective factor for Latina females who were at heightened risk for externalizing problems (Loukas & Perlow, 2004).

There is also a link between low levels of parental monitoring and higher levels of problem behavior among children and adolescents (e.g., Beyers, Bates, Pettit, & Dodge, 2003; Dishion & McMahon, 1998; Patterson & Stouthammer-Loeber, 1984; Pettit, Laird, Dodge, Bates, & Criss, 2001. Consistent parental monitoring and active participation by members of the community are protective factors for young adolescents living in impoverished communities (Coley, Morris, & Hernandez, 2004).

While developmental psychologists tend to focus on children and adolescents' proximal environments, sociologists emphasize contextual or structural factors that affect adolescent involvement in illegal and criminal activities. With urban communities associated with less social capital (e.g., Wilson, 1987; 1996) it is the environmental experiences or exposure to violence has been associated with increases in delinquency, substance abuse, and emotional and behavioral problems (Hurt, Malmud, Brodsky, Betancourt, & Giannetta, 2001; Peacock, McClure, & Agars, 2003; Ruchkin, Schwab-Stone, Koposov, Vermeiren, & Steiner, 2002).

Thus, research from developmental and sociological fields suggests that individual, family, and neighborhood characteristics are associated with adolescent engagement in delinquent activities. To further this line of research, this study uses data from the National Longitudinal Survey of Youth, 1997 (*NLSY97)* and investigates the embedded nature of family and community networks on the development of adolescent delinquency. The data set has information from male and female adolescents and from White and minority adolescents, allowing for comparisons between gender and race.

Methods

Sample

The *NLSY97* is the latest of six National Longitudinal Surveys (NLS), sponsored by the Bureau of Labor Statistics (BLS), U.S. Department of Labor. This large-scale survey studies the school-to-work transition of adolescents living in the United States in 1997 who were born between 1980 and 1984 (ages 12-16 at the first round). Surveys are conducted annually with data covering prime adolescent years and the transition into young adulthood for older respondents.

The *NLSY97* cohort includes 8,984 adolescents, comprising a nationally representative sample of 6,748 non-institutionalized adolescents, and a supplemental sample of 2,236 Hispanic

and African American adolescents. The sample used for the present analysis came from the first wave of data collection and focuses only on the adolescents aged 12 – 14 in the first wave (*n* = 4,688). This was done because only these respondents reported on central family process variables of interest (e.g., family routines, parent-child relationship, and parental monitoring).

After cleaning and omitting cases with missing information, the final sample resulted in 4,070 adolescents. Attrition analyses were performed and results suggested that the adolescents selected into the final sample were not random. Propensity weights were then constructed and logistic models were ran weighted and unweighted and results were unchanged. The results reported are the unweighted results.

Measures

Delinquency. Adolescents reported on the number of times they had ever engaged in each of these activities: smoking cigarettes, drinking alcohol, smoking marijuana, running away, stealing something less than $50, selling drugs, carrying a hand gun, belonging to a gang, destroying or damaging property, committing other property crimes (e.g., fencing, receiving, possessing or selling stolen property), stealing something greater than $50 or more including a car, and attacking or assaulting a person. Items were factor analyzed and when items were forced into 2 factors, factor loading indicated two holistic factors could be appropriate: minor and major delinquency.

Items that factored into minor delinquency were: smoking cigarettes, drinking alcohol, smoking marijuana, running away, stealing less than $50 ($\alpha$ = .68). Items that factored into major delinquency were: selling drugs, carrying a hand gun, belonging to a gang, destroying or damaging property, other property crimes, stealing greater than $50, and attacking or assaulting a person (α = .65). A count composite for minor and major delinquency was next created by

summing all the items that corresponded to the scales. Scales were then dichotomized into having participated in delinquency activities versus not having participated in delinquency activities

Predictors of Delinquency

Adolescent and Mother Characteristics. Parents and youth provided information on demographic characteristics including adolescent age, gender, race/ethnicity, maternal education, maternal employment, family income, and marital status during the first wave of data. Adolescent age is a continuous variable measured in months. Adolescent gender was coded as female with male omitted, and a series of dummy variables were created to capture race and ethnicity (e.g., Black, Hispanic) with White and other omitted.

In addition, in the first round of data collection, mothers reported on their highest grade completed, coded as high school drop out with completion of high school omitted, on their employment and marital status, with items coded dichotomously with employed and married as the reference categories. The household income was based on an income-to-needs ratio and the individuals below 200% of the poverty line were dichotomously coded as poverty. Those observations for which the mothers did not report an income value were included and coded as "missing poverty."[1]

[1] Preliminary analysis included models with a series of dummy variables to capture education and employment more precisely. For example, mother education included 3 dummy variables ("high school drop out", "some college", "college") with "high school graduate" as the reference category. Employment was captured with 2 dummy variables that included "never employed" and "currently not employed" with "employed" as the omitted category. Lastly, models also attempted to capture income more accurately resulted in preliminary models including either: (1) a series of dummy variables to capture a poverty measure or (2) a continuous variable to capture an income-to-needs ratio. Dummy variables created were: "poor" (e.g., 100% below the poverty line), "nearly poor" (e.g., between 100 and 200% below the poverty line), with "not poor" (e.g., 200% above the poverty line) as the reference category. Initial results found these human characteristics to be nonsignificant and for parsimony items were collapse.

Family Processes.

Mother-child relationship. Adolescents reported on their relationship with their mother. Three items on a 5 point scale (0 = *strongly disagree* to 4 = *strongly agree*) asked youth whether (1) "'I think highly of him/her", (2) S/he is a person I want to be like, (3) "I really enjoy spending time with him/her". Five additional items assess the adolescent's perceptions of how supportive each parent is of the adolescent, also on a 5 point scale (e.g., How often does s/he praise you for doing well? How often does s/he blame you for her problems?) from 0 = *never* to 4 = *always*. Of the eight items, 2 items were reversed coded and all eight items were summed, with higher scores indicating a more positive relationship (α = .75). Some of these items were adapted from items developed by Rand Conger and Katherine Jewsbury Conger for use in the IOWA Youth and Family Project (IYFP) (Conger & Elder, 1994).

Family routines. Items used to create the family routines index were modified from the Family Routines Inventory (FRI) (Jenson, James, Bryce, & Hartnett, 1983). Similar items have also been included in the National Commission on Children Survey of Children and Parents (1991) and the Early Childhood Longitudinal Study - Kindergarten cohort. The index consists of 4 items, each on an 8-point scale (0 = *no days/week* to 7 = *all seven days*), where adolescents were asked about family engagement in a typical week (e.g., In a typical week, how many days from 0 to 7 do you eat dinner with your family?"; "In a typical week, how many days from 0 to 7 do you do something religious as a family such as go to church, pray or read the scriptures together?"). The Family Routines Index was created by summing responses to the four items. Higher scores indicate more days spent in routine activities with the family. The internal reliability for this scale is .58.

Mother monitoring. Adolescents also reported on monitoring from mothers based on 4 items that are standard questions used widely by researchers of the family (Hetherington, Cox, & Cox, 1982; Maccoby & Mnookin, 1992). Items on a 0 = *knows nothing* to 4 = *knows everything* included (1) how much does he/she know about your close friends, that is, who they are? (2) How much does he/she know about your close friends' parents, that is, who they are? (3) How much does he/she know about who you are with when you are not at home? (4) How much does she know about who your teachers are and what you are doing in school? The responses to the four items were summed for each residential parent to create a Parental Monitoring scale. Higher scores indicate greater parental monitoring according to youth report (α = .71).

Neighborhood Factors.

Exposure to violence. Adolescents also reported on violent experiences. The events included 5 dichotomous items and 4 nominal items. The dichotomous items included: the respondent's house or apartment broken into; respondent was a victim of repeated bullying; respondent saw someone get shot or shot at with a gun; presence of any gangs in the respondent's neighborhood or school; respondent has any family (e.g., brother, sisters, cousins) or friends in a gang. The nominal items include: how many times something of value stolen from the respondent at school; how many times someone threatened the respondent at school; how many times hear gunshots, and how many times the respondent got in a physical fight at school). For item consistency, nominal variables were recoded to dichotomous variables with having not experienced the event as the omitted category. A composite was created by adding up all 9 items with higher scores indicating experiencing greater violence (α = .58).

Analytic Strategy

A series of statistical methods were employed to investigate early adolescent engagement in delinquency by gender and race. The first set of analyses utilizes descriptive and bivariate analyses to compare and contrast adolescents engaged in delinquency for the entire sample of adolescents and then by gender and race. In the second set of analyses, logistic regression models were applied to predict movement into early delinquency, again for all adolescents and then separate models were run by gender and racial subgroups. The final set of analyses included logistic regression models with gender and race as interaction terms to consider whether gender and race moderate the effects of other predictors.

Results

Sample Characteristics

Table 1 presents weighted descriptive statistics on all study variables for the sample as a whole and for males, females, white, and minorities separately. In the nationally-representative sample, 49% is female and approximately 74% are Non-Hispanic White, 14% African American, and 12% Hispanic adolescents. Most mothers completed a high school education, 27% are unemployed, 26% are not married, and 29% of the households are 200% below the poverty line. Approximately 51% of the adolescents were engaged in minor delinquency and 38% were engaged in major delinquency in the first round of data collection. A comparison of means for the dependent variable revealed no statistically significant differences between Blacks and Hispanics and groups were combined.

Bivariate Analyses

Bivariate analyses compared male (n = 2067) and female (n = 2003) adolescents, along with White (n = 2255) and Black and Hispanic (n = 1815) adolescents on the covariates and central delinquency items. Results are also displayed in Table 1. In regards to significant mean

differences across gender, females are more likely to be living in single-parent households (χ^2 (1) = 9.94, $p < .01$) and households that have income below twice the poverty line (χ^2 (1) = 3.92, $p < .05$) compared to males. Females report stronger relationships with their mother (F (1, 4068) = 3.97, $p < .05$) and greater maternal monitoring (F (1, 4068) = 28.81, $p < .001$). Males experience greater exposure to violence than females (F (1, 4068) = 61.64, $p < .001$). Males engaged in significantly greater amounts of minor (55% vs. 48%) (χ^2 (1) = 25.19, $p < .001$) and major delinquency (48% vs. 27%) (χ^2 (1) = 203.16, $p < .001$) compared to females. Males engaged more in drinking alcohol (χ^2 (1) = 8.57, $p < .01$), smoking marijuana (χ^2 (1) = 4.93, $p < .05$), stealing something less than $50 ($\chi^2$ (1) = 43.67, $p < .001$), selling drugs (χ^2 (1) = 10.57, $p < .001$), carrying a hand gun (χ^2 (1) = 168.67, $p < .001$), belonging to a gang (χ^2 (1) = 11.51, $p < .01$), destroying or damaging property (χ^2 (1) = 112.23, $p < .001$), engaging in other property crimes (χ^2 (1) = 85.33, $p < .001$), stealing something greater than $50 ($\chi^2$ (1) = 25.19, $p < .001$), and attacking or assaulting (χ^2 (1) = 75.25, $p < .001$).

Numerous mean differences were found on the covariates of delinquency across race and ethnicity. Marginally more females (χ^2 (1) = 3.07, $p < .10$) are in the Black and Hispanic group compared to the White group. Compared to White adolescents, Black and Hispanics are more likely to live in households where mothers have not completed high school (χ^2 (1) = 353.67, $p < .001$), are unemployed (χ^2 (1) = 56.86, $p < .001$), are single parents (χ^2 (1) = 247.26, $p < .001$), and are poor (χ^2 (1) = 285.59, $p < .001$). White adolescents report stronger mother-child relationships (F (1, 4068) = 13.16, $p < .001$) and greater monitoring by their mothers (F (1, 4068) = 40.84, $p < .001$) compared to Black and Hispanic adolescents. Black and Hispanic adolescents report having experienced greater exposure to violence (F (1, 4068) = 204.15, $p < .001$).

White adolescents participated in significantly more acts of minor delinquency (53% vs. 47%) (χ^2 (1) = 19.09, $p < .001$), while Black and Hispanics engaged in marginally more acts of major delinquency (χ^2 (1) = 3.18, $p < .10$). White adolescents are more likely to smoke cigarettes (χ^2 (1) = 31.41, $p < .001$), drink alcohol (χ^2 (1) = 18.69, $p < .001$), steal something less than $50 ($\chi^2$ (1) = 6.22, $p < .05$), carry a hand gun (χ^2 (1) = 14.15, $p < .001$) compared to their Black and Hispanic adolescent peers. However, compared to Whites, Black and Hispanic adolescents are more likely to belong to a gang (χ^2 (1) = 4.87, $p < .05$) and attack or assault another individual (χ^2 (1) = 15.19, $p < .001$).

Logistic Regressions

Logistic regression models were estimated to assess what covariates are associated with early adolescent delinquency. Table 2 presents the results for all adolescents. Several individual, family, and neighborhood factors are related to the likelihood of participating in minor and major delinquency. For each additional month in age, the odds of participating in minor and major delinquency is 4% (Wald = 84.85; $p < .001$) and 1% greater (Wald = 9.03; $p < .01$) respectively. The odds of participating in minor and major delinquency is 17% (Wald = 6.78; $p < .01$) and 59% (Wald = 139.63; $p < .001$) lower for females compared to males, Blacks are 54% (Wald = 69.97, $p <.001$) and 19% (Wald = 4.88, $p <.05$) less likely to engage in minor and major delinquency compared to Whites. Engagement in minor and major acts of delinquency are41% (Wald = 30.39, $p <.001$) and 26% (Wald = 8.54, $p <.01$) lower for Hispanics compared to Whites.

Mother characteristics were not found to be predictive of major delinquency, and only single parenthood was predictive of minor delinquency. Single parenthood compared to living in a household with two parents increases the likelihood of participating in minor delinquency by

26% (Wald = 7.99, $p < .01$). All three family process variables were strongly associated with a decreased risk of participating in minor and major delinquency. The odds are 4% lower in relation to a one point increase in mother-child relationship to participate in minor (Wald = 19.79; $p < .001$) and major (Wald = 22.13; $p < .001$) delinquency respectively. For every one point increase in family routines, participation in minor and major delinquency decreases by 5% (Wald = 50.52; $p < .001$) and 2% (Wald = 8.37; $p < .01$) respectively. The odds of participating in minor and major delinquency decreases by 7% (Wald = 36.90; $p < .001$) and 9% (Wald = 54.61; $p < .001$) respectively for every one point increase in mother monitoring. Lastly, experiencing violence was found to be strongly related to increased participation in minor and major delinquency. The odds of participating in minor delinquency increases by 41% (Wald = 217.57; $p < .001$) for each additional exposure to violence, while the odds of engaging in major delinquency increases by 60% (Wald = 370.20; $p < .001$) for each additional exposure to violence. Thus, numerous individual, family processes, and neighborhood factors are pertinent to predicting minor and major delinquency.

Minor and Major Delinquency by Gender

Next, to investigate how the correlates of minor and major delinquent behavior differ across gender, logistic regression models were run separately for males and females. Because separate male and female models had similar coefficients for most variables, Table 3 presents a model that pools males and females and includes two significant gender interactions[2] (Results of separate logistic regression models are available by request). Gender was interacted with each of the covariates in the model, but only unemployment and mother-child relationship significantly differ for males and females in their participation of minor delinquency. Findings suggest that unemployment is a marginal risk factor for males participating in minor delinquency compared

to females, and the quality of the mother-child relationship is a protective factor for deterring females in engaging in minor delinquency compared to males. In regards to major delinquency, gender moderation results suggest factors do not significantly differ between genders.

Minor and Major Delinquency by Race and Ethnicity

Logistic regression models were next conducted to explore how correlates of minor delinquency differed across race and ethnicity. Again, in separate models by race, adolescent, mother, family, and neighborhood characteristics function in similar ways as previously described and significant interaction results are only discussed in Table 4. Models that included race interaction terms suggest that single parenthood, family routines, and exposure to violence significantly differ between White and Black and Hispanic adolescents in predicting minor delinquency. Single parenthood and exposure to violence are risk factors for White adolescents compared to Black and Hispanic adolescents in their involvement in minor delinquency. However, family routines serves as a stronger protective factor against minor delinquency for White adolescents compared to Black and Hispanic adolescents. Models of major delinquency that included a race interaction term suggest that gender and experiencing violence influences white and minority adolescents differently. Although marginally significant, being female is a greater risk factor for engaging in major delinquency for Black and Hispanic adolescents than for White adolescents. However, exposure to violence is a greater risk factor for White adolescents compared to Black and Hispanic adolescents.

Discussion

Both psychological and sociological theories have emphasized the embedded nature that family and neighborhood processes have on adolescent development. The overarching goal of this study was to further delineate individual, family, and neighborhood correlates of early

adolescent delinquency by gender and race by investigating: (1) How individual, family, and neighborhood characteristics are associated with engagement in minor and major delinquency for early adolescents. (2) How the correlates of delinquency predict engagement in minor and major delinquency for early adolescents. (3) How the correlates of delinquency significantly differed by gender and race. Results indicate that similar correlates predict minor and major delinquency during early adolescence, as well for predicting delinquent activities for males, females, Whites, and minorities. However, some correlates differ significantly in their prediction of female and male delinquency, and of White and Black and Hispanic delinquency. For example, in predicting minor delinquency, unemployment is a marginal risk factor for males while mother-child relationship is a stronger protective factor for females. Compared to Black and Hispanic adolescents, single parenthood and experiencing violence are greater risk factors for White adolescents while family routines are a greater protective factor for White adolescents when predicting involvement in minor delinquency. Lastly, female gender is a greater risk factor for Black and Hispanic adolescents compared to White adolescents in predicting involvement in major delinquency, while experiencing violence is a greater risk factor for White adolescents compared to Blacks and Hispanics. The results are further discussed below, along with methodological limitations, and implications for future research.

General Characteristics of Early Adolescent Delinquency

Gender differences. Descriptive statistics indicate that overall very few correlates of delinquency differ between males and females. Adolescent characteristics were found not to differ between males and females. Few differences were found among mother human capital, family, neighborhood characteristics. For example, more adolescent females live in single parent and poor household compared to males. However, females report greater mother-child

relationships and maternal monitoring compared to males, while males are exposed to more violence. Males also engage in more minor and major acts of delinquency compared to females. Although the current study looks only at one point in time, young adolescent males continue to display greater levels of delinquency compared to young adolescent females. Yet this could also be because delinquency items under investigation are mainly related to overt physical aggressive acts, or behaviors displayed more often displayed by males. Research that has attempted to differentiate types of aggression has found that females participate more commonly in covert relational acts (e.g., manipulation of friendships, public humiliation, and rejection) compared to boys (Crick & Grotpeter, 1995; Crick, Casas, & Mosher, 1997; Werner & Crick, 1999). Thus, the current study may not be accurately measuring female delinquency and future survey research needs to expand the measures delinquency activities to include both overt and covert measures of aggression.

Race differences. Descriptive statistics found White adolescents compared to Black and Hispanic adolescents differ on adolescent and mother characteristics, in addition to family and neighborhood contexts. A slightly a greater percentage of females are in the minority sample, and maternal human characteristics become more salient when comparing adolescents by race. Black and Hispanics live in more single parent households and overall live in households that are more disadvantaged compare to White adolescent peers. Black and Hispanic adolescents also report weaker mother-child relationships and maternal monitoring compared to White adolescents. In regards to neighborhood attributes, significantly more Black and Hispanic adolescents have experienced greater amounts of violence.

Although Black and Hispanic adolescents may display more disadvantaged attributes, Black and Hispanic adolescents are engaging in significantly less amounts of minor delinquency

and relatively about the same amount of major delinquency compared to their White peers. This is an interesting finding if one considers the demographics of school suspensions, juvenile detentions, and adult prisons. At the school level, when comparing Black students to White students who get caught doing the same minor infraction, Black students are likely to receive more severe punishment (e.g., suspensions). Black adolescents are twice as likely to be arrested, 12 times more likely to be transferred to adult criminal court, and seven times more likely to be sent to correctional institutions compared to their white counterparts (Lamberg, 2002). Although there is a discrepancy between the research findings and the demographics of populations receiving punishment, recent research has found similar disparities. Findings from the *1997 National Household Survey on Drug Abuse* brought to light that White Americans use far more drugs, including alcohol, cigarettes, marijuana, cocaine, heroin, and inhalants, compared to Black Americans (U.S. Department of Health and Human Services, 1998). Thus, the racial disparities in delinquent and illegal activities versus punishment appear to suggest that stereotyping or racial discrimination is occurring when making judgments about "suspicious" looking adolescents and deciding outcomes for delinquent adolescents.

Predictors of Early Adolescent Delinquency

Adolescent and mother human capital characteristics. Although adolescent characteristics were found to function similarly in all models, adolescent gender was the only factor to marginally predict race and ethnic differences in predicting major delinquency, with slightly more Black and Hispanic females engaging in major delinquency compared to White female adolescents. With an increase in female offending, it is important to replicate this finding over time to see if this trend continues. Consistent with previous studies that have found that negative family contexts to be related to delinquency, maternal unemployment and living in a

single parent household were two indicators to significantly predict delinquency for adolescents in this sample. Although maternal unemployment does not influence female engagement in minor delinquency, maternal unemployment marginally predicts males of being at risk for engaging in minor delinquency. Gender interaction models further suggest that male adolescents are influenced more by living in a household where mothers are unemployed compared to female adolescents. Theorists have suggested that male delinquent behavior is generated by economic strain as males are more concerned with economic success (Agnew & Brezina, 1997). Young adolescent males in this study may feel more financial strain from mothers being unemployed and thus engage in delinquency. Furthermore, results suggest that single parenthood, or a lack of family cohesion, puts females and White adolescents at risk for involvement in minor delinquency. However, single parenthood was only significantly moderated by race. Literature on family structure and care arrangements for children reveal that Hispanics and African American and Hispanic families rely more on "kith and kin" or relatives for care giving (Brown-Lyons, Robertson, & Layzer, 2001). It is possible that although a greater percentage of Black and Hispanic adolescents compared to Whites live in single parent households, a greater social network could be buffering the effects of single parenthood.

Family processes. Family processes were found to (1) functioned similarly in all models and (2) significantly predict a decreased risk of engaging in delinquency in most models. A central finding of the study is that when focusing on minor delinquency the effects of mother-child relationship quality is moderated by gender, while the effects of family routines is moderated by race. For females compared to males, a strong mother-child relationship was found to be a strong protective factor in preventing engagement in minor delinquency. Previous literature has found that highly responsive parents and parents that are close and supportive to

their children are more likely to have adolescents that deter from substance use and deviant behavior (Blum & Rinehart, 1997; Fletcher, 1999). Early adolescent females may be more responsive to their mothers compared to young adolescent males. Future research should investigate how non-residential mothers and residential and nonresidential fathers influence male and female involvement in delinquency.

Although family routines was found to decrease the risk of involvement in minor delinquency for White and Black and Hispanic adolescents, family routines was found to protect White adolescents more. Although the family routines measure used in this study captures the frequency per week that activities are done together as a family, it does not capture the *length* of time or whether tasks *co-occur*. For example, White adolescents and Black and Hispanic adolescents do not differ in the amount of family routines that they participate in, however, White adolescents may be spending more time doing these activities than Black and Hispanic adolescents. Furthermore, families could be doing several tasks at the same time. For example, families could be eating dinner together and watching a sporting event at the same time. To better understand how family routines deter deviant behavior, future research should include time diaries to more accurately capture the time spent doing each activity and whether activities are co-occurring.

Neighborhood characteristics. Greater exposure to violence consistently predicted greater likelihood of engagement in minor and major delinquency in all models. Interestingly, experiencing violence has a stronger influence for White adolescents' compared to Black and Hispanic adolescents in their engagement in minor and major delinquency. White adolescents may be more sensitive to social disorganization and violence compared to Black and Hispanic

adolescents. Thus, White adolescents may feel that they regain security and control by behaving overtly and highly aggressive.

Summary

The results suggest that individual, family, and neighborhood factors appear to be salient when investigating gender and racial differences in early adolescent delinquent activity. The findings also parallel psychological and sociological theoretical models that emphasize the embedded nature that family processes and neighborhood contexts have on the development of early adolescent engagement in delinquent activities. Although previous research has found similar results, few studies have investigated predictive models for early adolescents comparing males and females; and none to the author's knowledge have investigated engagement in early adolescent delinquency comparing White adolescents with Black and Hispanic adolescents. As a result the findings may provide insightful suggestions for further research in the area of delinquent and antisocial behavior according to gender and race. In addition knowing more about what predicts gender and race differences in delinquency could help with creating intervention programs more efficiently and effectively.

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Table 1 Range, weighted means (standard deviations) or percentages of study variables for entire sample of 12 – 14 year old adolescents (n=4070), and subsample of males (n=2067), females (n=2003), white adolescents (n=2255), and Black and Hispanic adolescents (n=1815).

		All Adolescents (*n*=4070)		Male Adolescents (n=2067)		Female Adolescents (n=2003)		White Adolescents (n=2255)		Black and Hispanic Adolescents (n=1815)	
Variables	Range	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Adolescent Characteristics											
Age (Months)	146.00 – 179.00	163.59	9.38	163.55	9.31	163.64	9.45	163.59	9.4	163.61	9.32
Female	0.00 – 1.00	49%						49% [f]		51% [f]	
Black	0.00 – 1.00	14%		14%		15%				54%	
Hispanic	0.00 – 1.00	12%		12%		12%				46%	
Mother Characteristics											
High School Drop Out	0.00 – 1.00	17%		17%		17%		11% [e]		32% [e]	
Unemployed	0.00 – 1.00	27%		28%		27%		25% [e]		34% [e]	
Single Parent	0.00 – 1.00	26%		24% [a]		28% [a]		20% [e]		43% [e]	
Poverty	0.00 – 1.00	29%		27% [b]		30% [b]		23% [e]		45% [e]	
Missing Poverty	0.00 – 1.00	22%		22%		21%		20% [e]		26% [e]	
Family Processes											
Mother-child Relationship	8.00 – 32.00	25.40	4.69	25.22 [c]	4.55	25.59 [c]	4.83	25.55 [d]	4.57	24.99 [d]	4.99
Family Routines	0.00 – 28.00	15.21	5.25	15.34	5.16	15.07	5.33	15.19	5.00	15.27	5.90
Mother Monitoring	1.00 – 16.00	10.53	3.14	10.26 [d]	3.15	10.82 [d]	3.11	10.72 [d]	3.04	10.02 [d]	3.37
Neighborhood Characteristics											
Exposure to Violence	0.00 – 9.00	1.77	1.64	1.97 [d]	1.70	1.57 [d]	1.56	1.60 [d]	1.56	2.28 [d]	1.78
Minor Delinquency		51%		55% [e]		48% [e]		53% [e]		47% [e]	
Smoke Cigarettes	0.00 – 1.00	30%		30%		30%		32% [e]		25% [e]	
Drink Alcohol	0.00 – 1.00	30%		32% [a]		28% [a]		32% [e]		25% [e]	
Smoke Marijuana	0.00 – 1.00	10%		11% [b]		9% [b]		10%		9%	
Run Away From Home	0.00 – 1.00	6%		7%		6%		6%		6%	
Steal Something < $50	0.00 – 1.00	28%		33% [e]		24% [e]		29% [b]		27% [b]	

Major Delinquency		38%	48% [e]	27% [e]	36% [f]	40% [f]
Sell Drug	0.00 – 1.00	3%	4% [a]	3% [a]	4%	3%
Carried a Hand Gun	0.00 – 1.00	9%	14% [e]	3% [e]	9% [e]	6% [e]
Belong to a Gang	0.00 – 1.00	4%	5% [a]	3% [a]	3% [b]	4% [b]
Destroy or Damage Property	0.00 – 1.00	26%	34% [e]	19% [e]	26% [f]	25% [f]
Other Property Crimes	0.00 – 1.00	6%	10% [e]	3% [e]	6%	7%
Steal Something > $50	0.00 – 1.00	5%	7% [e]	4% [e]	5% [f]	6% [f]
Attacked or Assaulting	0.00 – 1.00	15%	19% [e]	11% [e]	13% [e]	19% [e]

[a] Chi-square differences significant at $p < .01$.
[b] Chi-square differences significant at $p < .05$.
[c] Mean differences significant at $p < .05$ based on a 2-tailed test for equality measures.
[d] Mean differences significant at $p < .001$ based on a 2-tailed test for equality measures.
[e] Chi-square differences significant at $p < .001$.
[f] Chi-square differences significant at $p < .10$.

Table 2 Logistic Regression Analyses of Minor and Major Delinquent Activities as a Function of Individual Characteristics, Family Processes, and Neighborhood Characteristics for All Adolescents (n = 4070)

Variable	All Adolescents			
	Minor		Major	
	OR	Wald	OR	Wald
Adolescent Characteristics				
Age (Months)	1.04***	84.85	1.01**	9.03
Female	.83**	6.78	.41***	139.63
Black	.46***	69.97	.81*	4.88
Hispanic	.59***	30.39	.74**	8.54
Mother Characteristics				
High School Drop Out	.97	.14	.94	.36
Unemployed	1.00	.00	.90	1.55
Single Parent	1.26**	7.99	1.03	.09
Poverty	.94	.51	.98	.03
Missing Poverty	.83*	4.32	.96	.16
Family Processes				
Mother-child Relationship	.96***	19.79	.96***	22.13
Family Routines	.95***	50.52	.98**	8.37
Mother Monitoring	.93***	36.90	.91***	54.61
Neighborhood Characteristics				
Exposure to Violence	1.41***	217.57	1.60***	370.20

Note. Significant differences are based on a 2-tailed test.
*** $p < .001$. ** $p < .01$. * $p < .05$.

Table 3 Logistic Regression Analyses of Minor Delinquent Activities as a Function of Individual Characteristics, Family Processes, and Neighborhood Characteristics by Gender (n = 4070)

Variable	Minor Delinquency	
	OR	Wald
Adolescent Characteristics		
Age (Months)	1.03***	34.39
Female	.71	.06
Black	.42***	40.98
Hispanic	.60***	13.65
Mother Characteristics		
High School Drop Out	.96	.12
Unemployed	1.15	1.53
Single Parent	1.27*	4.06
Poverty	.94	.22
Missing Poverty	.83*	4.20
Family Processes		
Mother-child Relationship	.98	1.91
Family Routines	.96***	20.44
Mother Monitoring	.91***	26.78
Neighborhood Characteristics		
Exposure to Violence	1.42***	123.34
Interactions		
Mother Characteristics		
Unemployed x Female	.76†	3.05
Family Processes		
Mother-child Relationship x Female	.96*	5.71

Note. Significant differences are based on a 2-tailed test.
*** $p < .001$, ** $p < .01$, * $p < .05$, † $p < .10$.

Table 4 Logistic Regression Analyses of Minor and Major Delinquent Activities as a Function of Individual, Neighborhood, and Family Characteristics by Race and Ethnicity

Variable	Minor Delinquency		Major Delinquency	
	OR	Wald	OR	Wald
Adolescent Characteristics				
Age (Months)	1.04***	55.08	1.01*	4.39
Female	.83*	3.90	.36***	92.96
Black	1.38	.06	.24	.97
Hispanic	1.68	.15	.22	1.09
Mother Characteristics				
High School Drop Out	1.09	.32	.93	.19
Unemployed	.94	.30	.93	.36
Single Parent	1.52**	10.92	.97	.07
Poverty	1.03	.06	1.02	.02
Missing Poverty	.80*	5.63	.96	.18
Family Processes				
Mother-child Relationship	.97**	6.84	.95***	14.03
Family Routines	.94***	37.52	.97**	8.67
Mother Monitoring	.92***	19.88	.89***	34.22
Neighborhood Characteristics				
Exposure to Violence	1.49***	127.59	1.71***	213.33
Interactions				
Adolescent Characteristics				
Female x Minority			1.30†	3.02
Mother Characteristics				
Single Parent x Minority[a]	.72*	3.88		
Family Processes				
Family Routines x Minority	1.03*	5.10		
Neighborhood Characteristics				
Exposure to Violence x Minority	.90*	5.13	.88*	5.83

Note.

[a] Minority indicates Black and Hispanic Adolescents.

Significant differences are based on a 2-tailed test.

*** $p < .001$, ** $p < .01$, * $p < .05$, † $p < .10$.