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NEIGHBORHOOD EFFECTS ON
DIVERSE ADOLESCENTS' DEVIANT BEHAVIOR:
EXPLORING PARENTAL MONITORING AS A PROTECTIVE FACTOR

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ABSTRACT

Adolescence is a time when there is an increase in the vulnerability and risk for deviance, especially for adolescents who are living in high poverty/crime areas. This study focused on the meso-system (the term meso-system is introduced in Bronfenbrenner's work (1986)), which examines how the home context and neighborhood context conjointly influence adolescent development. Using the data from The FAN-C (Understanding Family, Adolescent, and Neighborhood in Context) study (Parents, $n = 158$; Adolescents $n = 206$), this study specifically examined (1) how neighborhood characteristics (e.g. neighborhood collective efficacy and neighborhood poverty) were related to adolescent deviant behavior, and (2) how parental monitoring might moderate this relation. By using hierarchical linear regression, the results showed that contrary to the original hypothesis; parental monitoring exacerbated the positive relation between neighborhood collective efficacy (informal social control, $\beta = .25, p < 0.05$) and deviant behavior. Furthermore, this study showed that for lower-income African American and Latino youth living in distressed, high violence and crime neighborhoods, youths and their parents reported low levels of deviant behavior. This may suggest and provide an alternative narrative of urban, ethnically diverse youth.

Keywords: neighborhood poverty, neighborhood collective efficacy, neighborhood informal social control, parental monitoring, adolescent deviance

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INTRODUCTION

Background and Significance

The neighborhood context is particularly important during the adolescent development period, because adolescence is the time when there are changes in physical (e.g. puberty; Ge et al., 2006), social (e.g. peer relationship; Mikami, Szewedo, Allen, Evans, & Hare, 2010), and ecological (e.g. school transition; Seidman & French, 2004) ways. Also, adolescence is the time when there is an increase in the vulnerability and risk for deviance (Brody et al., 2001). This is especially true for ethnic minority adolescents who are living in urban areas (Forehand et al., 2000). Adolescent deviant behavior is a social construct and different types of behavior can explain it. There are behaviors that can be considered as criminal, for example, vandalism, robbery, and drug use. There are behaviors that can be non-criminal, but still considered as deviant behavior, such as lying, poor academic performance, and personal aggression (McGee & Newcomb, 1992). Youth who engage in criminal deviant behaviors may be considered juvenile delinquents and become part of juvenile justice system.

To understand why adolescents may engage in deviant behavior, we need to understand the context that adolescents live in. According to Bronfenbrenner (1986), different contexts are associated with youth development: home, neighborhood, national, and global. The mainstream literature on juvenile delinquency and deviance tends to focus on one specific context that is associated with juvenile deviant behavior. An

example of this is examining only the relation between the home context and adolescent deviant behavior. However, there is lack of literature examining a holistic perspective on how multiple contexts may be associated with adolescent deviance. Therefore, in this study, more proximal contexts adolescents are involved in - home and neighborhood -, will be examined to understand adolescent deviant behavior.

There are innumerable factors in home and neighborhood contexts that may be associated with juvenile deviant behavior, yet, I will focus on how parental monitoring is related to juvenile deviant behavior in different neighborhood contexts characterized by structural characteristics (neighborhood poverty) and social processes (neighborhood cohesion and trust, neighborhood informal social control). To clarify, for the outcome variable, I will focus on adolescent non – criminal deviant behavior.

Literature Review

What is neighborhood? There are two different ways that neighborhood could be defined: Objective and Subjective. Objective measures are based on archival data or institutions/neighborhood resources. The example of objective definition of neighborhood could be U.S. census boundaries, school district, zip code, (D.P. Witherspoon, personal communication, April, 1, 2014). Subjective measures are based on residents' perceptions about their neighborhood (Urban, Lewin-Bizan, & Lerner, 2009). There are limitations using only objective measures of neighborhood. The first limitation is that census survey data is collected every 10 years and neighborhood characteristics might be changed throughout the years. The second limitation is that census surveys can

be unevenly distributed (e.g. low income neighborhood), which decreases the reliability of the survey (McGuire, 1997). The third limitation is that using objective measures of the neighborhood does not accurately depict the actual residents' perceptions of their neighborhood. The actual residents could differently define their neighborhood (e.g. several street around your house) (Coulton, Korbin, Chan, & Su, 2001).

Neighborhood Theories.

There are several theories about neighborhoods and how it impacts adolescents. According to Wilson (1987) and Massey (1996), during 1970s and 1980s, most of the affluent European Americans moved out to suburbs and rural areas, while African Americans and people who had other ethnic backgrounds resided in poor urban areas. This led to automatic racial and economical segregation between people, and urban area residents were affected by centralized poverty (Leventhal and Brooks-Gunn, 2000). This might lead people to weaken their social ties and communicate with neighbors less often; which ultimately may lead adult residents to become less engaged in reducing adolescents' deviant behavior (Brody et al., 2001). According to social disorganization theory (Shaw & McKay, 1942; Wilson, 1987), there are several indicators that characterize the disorganized neighborhood (e.g. the percentage of female-headed households, unemployment rate). In Peeples and Loeber (1994)'s study, they used those indicators (e.g. male joblessness, family unemployment) and labeled that neighborhood as "underclass" (Seidman et al., 1998). The focus of this theory is that if neighbors feel their neighborhood is disorganized, it is more difficult to build cohesion and trust

between neighbors (Witherspoon & Ennett, 2011). Using social disorganization theory, several studies have found support for the relation between neighborhood disadvantage and adolescent self-reported deviant behaviors (e.g. Fagan & Schwartz, 1986; Simons, Johnson, Beaman, Conger, & Whitbeck, 1996; as cited by Seidman et al., 1998).

Jenks and Mayer (1990) argued that there are five mechanisms that influence adolescent outcomes in the neighborhood contexts. The neighborhood institutional resources model focuses on how the amount of neighborhood resources can affect adolescents. For example, in the affluent neighborhoods, there might be better resources, which would lead to better outcomes compared to the adolescent who live in poor neighborhoods. The epidemic model suggests that peers or neighbors acting deviant or committing crimes affect adolescents. The collective socialization model, on the other hand, focuses on how adults who are not parents of adolescents might influence and enforce the adolescents to behave positively. The competition model suggests that if there are little recourses in the neighborhood, adolescents will try to compete for the scarce recourses. Last, the relative deprivation model suggests that the neighborhood situation affects adolescents who will compare their personal situation with their neighbors and their peers.

These two theoretical frameworks suggest that neighborhood characteristics can significantly affect adolescent behavioral outcomes. In the next sections, I review the literature on the relations between neighborhood social (i.e., neighborhood cohesion and trust) and structural (i.e., neighborhood poverty) characteristics and adolescent deviant behavior.

Neighborhood Collective Efficacy.

Sampson, Raudenbush, and Earls (1997) defined neighborhood collective efficacy as “social cohesion among neighbors combined with their willingness to intervene on behalf of the common good, is linked to reduce violence” (p.918).

Neighborhood collective efficacy contains two main characteristics, which is neighborhood cohesion and trust and neighborhood informal social control.

Neighborhood connectedness and social cohesion and trust are associated with lower levels of adolescent deviant behavior (Widome, Sieving, Harpin, & Hearst, 2008; Leventhal and Brooks-Gunn, 2000). McMillan and Chavis (1986) defined sense of community as members feeling that they are important to each other, and have shared faith, expectations, and commitment to be together. According to Baumeister and Leary (1995), belonging to a community is important for healthy human development. For instance, according to McMillan (1996), “[a] community based on strong positive support network gives individuals support and leads to self-disclosure,” which eventually leads to healthy human development (as cited by Chipuer, 2001, p. 430). In other words, if there is no sense of community for an individual, they will not feel like they belong and this may have an impact on healthy human development. Sense of community can be applied to adolescent development and if adolescents feel a sense of community with the neighborhood, they tend to show less deviant behavior. According to Moon and colleagues (Moon et al., 2000), adolescents who report a positive sense of community and perceived neighborhood safety report lower levels of substance use (as cited by Shekhtmeyster, Sharkey, & You, 2011). Ross and Jang (2000) reported that beyond

individual characteristics, if one perceives their neighborhood disorder, they feel more mistrust and hinder interaction with their neighbors than the individuals who perceive their neighborhood as safe (Lenzi, Vieno, Santinello, & Perkins, 2013). Interestingly, having informal social ties with neighbors were a strong indicator to reduce the mistrust, while participating in community based organization were not.

Neighborhood connectedness and cohesion are more focused on the how individuals feel about their neighborhood, whereas, neighborhood informal social control is more focused on how neighborhood individuals (mostly adult) intervene to reduce adolescent problem behavior in the neighborhood.

Literature suggests that in deprived neighborhood, neighborhood informal social control could be the buffer from harmful neighborhood factors (Odgers et al., 2009). The mainstream literature suggests that collective efficacy is negatively correlated to youth externalizing behaviors (Chung and Steinberg, 2006; Lenzi et al., 2013). Browning, Burrington, Leventhal, and Brooks-Gunn (2008) examined how neighborhood collective efficacy protects adolescents from engaging in early sexual risk behavior. Their result showed that there was a significant influence of neighborhood collective efficacy. If the level of neighborhood collective efficacy went up, the frequency of adolescents engaging in sexual risk behavior decreased. However, there were no significant relations shown for early adolescents (e.g., 12 years old). According to Maimon, Browning, and Brooks-Gunn (2010), they hypothesized that low levels of collective efficacy are related to a higher frequency of adolescent suicide attempts. Along with family attachment and support, if adolescents had a strong tie with neighbors or their neighborhood, they had lower frequency of suicide attempts.

Neighborhood poverty

As previously mentioned, neighborhood resources can impact adolescent development and deviant behavior. According to Murry, Berkel, Gaylord-Harden, Copeland-Linder, and Nation (2011), adolescents' lives are challenged when there are not enough resources and services, such as poverty in family or living in deprived neighborhoods, which are essential for them to develop. Also, for the adolescents who live in the deprived neighborhoods that have high crime rates, social disorder, and poor role models for adolescents, their life trajectory is threatened to become negative. Also parenting is influenced by parental perceived neighborhood disorder; if parents perceive their neighborhood as dangerous, parents engage in active parental monitoring (e.g. knowing where their child are at night) to protect their children (Furstenberg, Cook, Eccles, Elder, & Sameroff, 1999; as cited by Meryers & Miller, 2004). However, as Beyers, Loeber, Wikström, and Stouthamer-Loeber, (2001) have argued, it is true that high socioeconomic status (SES) neighborhoods have low crime rates, but there are some deviant behaviors repeated for both high and low SES neighborhoods--having a positive attitude toward problem behavior, lack of guilt, early intercourse, and peer delinquency. This implies that living in relatively high advantaged neighborhoods does not mean it is a 'safeguard' for reported violence. Using the Moving to Opportunity Study (MTO), Leventhal, Fauth, and Brooks-Gunn (2005) hypothesized that if adolescents who lived in low SES neighborhoods moved to high SES neighborhoods, it would be positively associated adolescent development. In the short-term, Leventhal and colleagues found a positive effect on adolescent's grades. However, using the Yonkers Project, Fauth,

Leventhal, and Brooks-Gunn (2007), showed different results. Adolescents who moved to high SES neighborhoods reported that they showed more deviant, violent behavior than the control group, who did not move and stayed in their own neighborhoods.

Researchers assumed that since adolescents who moved to low poverty neighborhoods moved from their social support group like friends and families, they acted more deviant than before (Murry et al., 2011; Fauth et al., 2007). This study showed that neighborhood poverty is not the only factor influencing juvenile deviant behavior and there might be a possibility for other factors to moderate juvenile deviant behavior.

Parental Monitoring.

Even though there are a lot of negative neighborhood factors affecting adolescent deviant behavior, parental monitoring could be the buffer and help adolescents to engage in less deviant behavior (Jarret & Jefferson, 2003; as cited by Snell, Castells, Ducan, Gennetian, Magnuson, & Morris, 2012). Parental monitoring refers to “parental knowledge about their children’s whereabouts, activities, and friends” (Jacobson & Crockett, 2000, p.66; Snyder, Dishion, & Patterson, 1986). Parental monitoring is known as one of the key factors of effective parenting and a protective factor of adolescent deviant behavior (Laird, Pettit, Dodge, & Bates, 2003). Jones, Forehand, Connell, Armistead, and Brody (2005) studied low-income African American single mothers, how they perceive their neighborhood and their level of parental monitoring. Taking into account parental perceived neighborhood risk, the level of parental monitoring increased. The majority of literature examines parental monitoring with other variables to see the

relationship with adolescent deviant behavior. For example, Laird et al. (2003) suggested that if adolescents believe they have positive good relationship with parents and their parents know about them then there is a link to less deviant behavior compared to adolescents who have a weaker relationship with their parents. Laird, Criss, Pettit, Dodge, and Bates (2008) hypothesized that compared to highly informed parents, low informed parents' children will choose deviant friends, which has a strong relationship with delinquent behavior. Their results displayed that if teenage youth perceive that their parents are not knowledgeable about their whereabouts (i.e., parental monitoring), the teenage youth showed higher delinquent behavior and had more deviant friends. This result led to the conclusion that parental monitoring weakens the relationship between deviant friends and adolescent deviant behavior.

There were several problems that arose from current studies in regards to parental monitoring. First, child disclosure is the most used way for the parents to gain knowledge about their teen children, which is not based on the parent's active tracking on their children. Stattin and Kerr (2000) argued that current studies on parental monitoring only focus on what parents know about their teenage children, but not on how parents gain their knowledge. So Stattin and Kerr (2000) considered child disclosure, parental solicitation, and parental controls as possible ways for parents to gain their knowledge about their children. According to their research, child disclosure was the most used way that parents found out about their children. This research result suggests that parental monitoring can be effectively done when children talk about themselves first. Also Vieno, Nation, Pastore, and Santinello (2009)'s study results displayed that when parental control increased the amount of child disclosure increased. When parents talk about their

teenager's life more, parents get to know more about their adolescents. According to Vieno et al. (2009), as parental control increases, parents could gain their knowledge from their children, by controlling the teenage children to talk about themselves. However, this control is only helpful for parents to obtain information from their teenage children, but not to control adolescent deviant behavior (Vieno et al., 2009; Soenens, Vansteenkiste, Luyckx, & Goossens, 2006). This result suggests that parents should take a balanced approach, not only gaining knowledge from their youth but also being active and keeping track of what their kids do (Vieno et al., 2009; Roberts & Steinberg, 1999). Furthermore, Lahey, Hulle, D'onofrio, Rodgers, and Waldman (2008) argue that since deviant juveniles are unlikely to disclose information as compared to their non-deviant counterparts because of fear of punishment, the knowledge that parents have about their child can be spuriously associated with the adolescent's deviant behavior. Lahey et al. (2008) argues that this association may be spurious because parental knowledge is child-based data, not based on the parent's active surveillance. The authors argued that, for adolescents, the feeling of being controlled could lead to maladjustment and particularly, delinquency.

Even though there is a large literature on parental monitoring and juvenile deviant behavior, less research focuses on how other contextual factors, paired with parental monitoring are associated with adolescent deviant behavior. Parental monitoring is not the only factor related to adolescent deviant behavior. The literature suggests that the neighborhood context is associated with adolescent deviant behavior.

Parental Monitoring and Neighborhood characteristics Conjoint Influence on Adolescent Deviant Behavior

Parental monitoring is one of the most important aspects for influencing juvenile deviant behavior; however, not only parental monitoring, but also adolescent's neighborhood connectedness, and poverty are also important factors that are related to adolescent deviant behavior. Parental monitoring contains parental control, solicitation, and child disclosure, and it is related to juvenile deviant behavior (Stattin & Kerr, 2000; Jacobson & Crockett, 2000). On the other hand, not only the level of parental knowledge but also active surveillance is needed for effective parental monitoring (Vieno et al., 2009; Roberts & Steinberg, 1999). Parents and adolescents do not perceive similar levels of parental monitoring because they might interpret the parental monitoring differently (Oberlander et al., 2011). Neighborhood connectedness impacts juvenile deviant behavior and the higher levels of resources in neighborhood would lead to more chance to be connected to neighborhood (Widome et al., 2008). Neighborhood poverty might be the factor for adolescent behavior, but based on several studies "Move to Opportunity" and "Yonkers study", the consequences showed that neighborhood poverty is not the only factor influencing juvenile deviant behavior (Leventhal et al., 2005; Fauth et al., 2007). Taking all these factor into account, Jones, Forehand, O'Connell, Armistead, and Brody (2005) found the relation that if there is lower informal social control in high risk neighborhoods, parent's monitoring goes up to protect their child from acting deviant. Pettit, Bates, Dodge, and Meece (1999), showed the result that adolescents in unsafe neighborhoods with low parental monitoring had the highest number of externalizing

problems. But for adolescents in safe neighborhoods, adolescents who were in high peer activities, and adolescents who are under high monitoring showed more deviant behavior than adolescents under low monitoring (Pettit et al., 1999. P.775, Figure 1). Adolescents in unsafe neighborhoods and adolescents under low monitoring showed more externalizing problems than adolescents under high level of monitoring.

The Current Study

Based on the literature, the current study had the following research questions (RQ): (1) Are there any difference in frequency of adolescent deviant behavior based on their demographic characteristics? (2) Do adolescents' and parents' perceive and their neighborhood similarly? (3) What is the association between neighborhood characteristics and adolescent deviant behavior? (4) In the association between neighborhood characteristics and adolescent deviant behavior dependent upon parental monitoring?

For RQ 1, I focused on three different demographic characteristics.

In terms of gender, I hypothesized that male adolescents would conduct more deviant behavior compared to female adolescents. In terms of race, I hypothesized that African American adolescents would conduct more deviant behavior than their counterparts.

For RQ 2, I hypothesized that adolescents and parents/caregivers would perceive their neighborhoods differently. Specifically, adolescents would view their neighborhoods more favorably (i.e., higher cohesion/trust, connection, and informal social control; lower problems) than their parents/caregivers based on mean-level

comparisons. For the correlations between parents/caregivers and adolescents reports of neighborhood characteristics, I hypothesized that their reports would be small, but significantly correlated.

For RQ 3, I hypothesized that positive neighborhood characteristics (i.e., neighborhood cohesion/trust, connection, and informal social control) would be negatively associated with adolescent deviant behavior. Conversely, neighborhood poverty and problems would be positively associated with adolescent deviant behavior. Parental monitoring would be negatively associated with adolescent deviant behavior.

For RQ 4, I hypothesized that the previously mentioned bivariate correlational associations would persist after adjusting for the correlation between all variables in the hierarchical regression analyses. For the interaction between neighborhood characteristics and parental monitoring, I predicted the following:

In terms of neighborhood poverty, I hypothesized that parental monitoring would matter most in high poverty neighborhoods, such that the positive association between neighborhood poverty and deviant behavior would be reduced by parental monitoring.

In terms of the nature of Collective efficacy, a combination of informal social control and social cohesion and trust, I hypothesized two specific relations. I hypothesized that parental monitoring would matter the most in low informal social control neighborhoods, such that the negative association between neighborhood informal social control and adolescent deviant behavior would be benefited and strengthened by parental monitoring. I hypothesized that parental monitoring would matter the most in low social cohesion and trust neighborhoods, such that parental monitoring would act as a protective factor in the negative association between neighborhood cohesion and trust

and deviant behavior.

METHODS

Sample

The sample for this study was part of a larger research project focused on understanding families, adolescents, and neighborhoods in context (FANC). Families were residents of a small city in the northeastern part of the United States. The sample consisted of parents or caregivers ($N=158$, Natural mother 75.9%, natural father 6.4%, step father 5.0%, other 12.7%) and their adolescents ($N = 206$). Eligibility criteria included that parents/caregivers had to have an adolescent between 11 and 17 years old who could participate in the project, and the families had to reside in one of four pre-determined neighborhoods.

On average, parents or caregivers were 40.64 years old ($SD = 9.28$). Parents' self-identified as Hispanic (49.5%), African American (42.2%), Euro-American (3.9%), and "other" (4.5%). Parents reported their annual family income, which ranged from less than \$10,000 to greater than \$100,000. Thirty-eight percent of families indicated their annual family income as less than \$10000; 32% reported annual family income between \$10001 and \$30000. Twenty percent of the parents reported family incomes \$30001 or higher; 18% of parents did not know their income or they were declined. Parents' educational attainment ranged from no formal education to graduate or professional school (Ph.D, MD.,JD.,etc) ($M = 3.95$, $SD= 2.03$), which indicates that on average, parents completed high school or vocational school.

Adolescents ranged in age from 11 to 17 years old ($M = 13.35$, $SD = 1.9$). The adolescent sample was primarily female (58.4%), compared to male (41.6%).

Adolescents self-identified themselves as Hispanic (41.8%), African American (42.3%), Euro-American (2%), and “other” (13.9%).

Procedure

Two phases of data collection were conducted for the larger FANC project. Families were recruited through community organizations and agencies in a small city in Pennsylvania. The project was approved by the Institutional Review Board of The Pennsylvania State University. For the first phase of FAN-C data collection, participants were eligible if they lived in one of the targeted 4 neighborhoods, were able to speak, read, write, and understand English and adolescents had to be within the targeted age range (11-17 years old). The adolescent and one parent/caregiver had to participate in order to be eligible for the study. The eligibility criteria for the second phase of the FAN-C data were identical, except only Latino families were recruited and parents/caregivers had to be able to speak, read, write, and understand Spanish. Adolescents had to be able to speak, read, write, and understand English. Bilingual staff, who could speak both English and Spanish, administered the whole process of data collection.

Families came to a pre-determined neighborhood location for the study, and they completed both surveys and participated in a focus group discussion. Dinner was provided to the families; during this time, parents/caregivers were consented and gave permission for their adolescent to participate. Once permission was granted by

parents/caregivers, adolescents provided written assent; FAN-C project staff read the assent forms aloud to the adolescents. Also, during dinner, parents/caregivers and adolescents completed the surveys. Adolescents' surveys were in English. Parent surveys were available in English (Phase 1 and 2) and Spanish (Phase 2). Survey packets that were not completed during dinner were finished after the focus group session.

After completion of survey packets, both parents/caregivers and adolescents participated in simultaneous, but separate focus group sessions. Adolescent focus group sessions were conducted in English. In phase 1, parent/caregiver focus groups were conducted in English. For phase 2, parent/caregiver focus group sessions were conducted in Spanish. The duration of the survey completion and focus group session lasted a maximum of 2.5 hours. After the completion of the study, parents/caregivers and adolescents received a monetary incentive for participation.

Measures

Demographics.

Adolescents and parents completed a demographic questionnaire containing information about age, gender, and race/ethnicity. Parents reported annual family income using seven forced choice categories (e.g., \$10000 or less; \$10001 - \$20000, etc.). Parents also reported the number of adults and children in the household. From this information (i.e., annual family income and number of people in the household), a dichotomous family poverty variable (i.e., 1 = at or above the poverty line, 0 = below the

poverty line) was created using the poverty line income cut points for families from the US Census Bureau (2010). 72.9% of families lived below the federal poverty line.

Objective Neighborhood.

Neighborhood disadvantage.

Participant addresses were geocoded. Census tract data from the 2010 Census were linked to each participant. Five indicators of disadvantage were taken from the Census: percentage of female households, percent without high school diploma, percentage unemployed, percent of families below the poverty line, and percentage of individuals living in different household the previous year. On average, families lived in neighborhoods where 33% of household were female-headed; 24% of adults who were aged 25 years or older did not have high school diploma; 8% of the residents 16 years or older were unemployed; 33% of the residents lived below the poverty line, and 23% of residents had moved in the past year.

Perceived Neighborhood.

Informal social control.

The Collective Efficacy scale (Sampson & Groves, 1997) was used for both parent and adolescents, to assess the degree to which adults would intervene in deviant behavior. This measure captured how much parents and adolescents perceived their neighbors would be willing to interrupt them from conducting deviant behaviors. There

were 5 items on a 4-point Likert scale ranging from “not at all likely” to “very likely”. A sample item was ‘How likely is it that your neighbors would do something if they saw you fighting in front of the house?’ The scale demonstrated good reliability for both parents ($\alpha = 0.92$) and adolescents ($\alpha = 0.91$). On average, adolescents and parents felt the action of informal social control would happen in the range of not very likely to sort of likely ($M = 2.2, SD = 1.07; M = 2.5, SD = 1.03$)

Connectedness.

The Neighborhood Connectedness scale (Witherspoon & Hughes, 2013; adapted from Perez-Smith, Albus, & Weist, 2001, and Seidman et al., 1995) was used to assess the degree to which parents’ and adolescents’ feel connected to their neighborhoods. Adolescents responded to 10 items that assessed the degree of attachment to their self-defined neighborhood. A sample item is “Overall, I like living in my neighborhood”; response options ranged for 1 (not at all true) to 4 (very true). The scale demonstrated good reliability for adolescents ($\alpha = 0.89$). On average, adolescents were feeling connected to their neighborhood in a range of not very true to sort of true ($M = 2.5, SD = 0.76$). Parents responded to 6 items. A sample item is “The neighborhood I live in is a big part of who I am.” The scale demonstrated good reliability ($\alpha = 0.82$). On average, adolescents and parents felt they were somewhat agree that they were connected to their neighborhood ($M = 2.6, SD = 0.80; M = 2.6, SD = 0.79$).

Cohesion and Trust.

The Collective Efficacy scale (Sampson & Groves, 1997) was used to assess the degree to which adult and children would trust their neighbors. This measure assessed whether parents and adolescents felt their neighbors could be trusted and was willing to

help each other out. There were 4 items to measure parents' and adolescents' cohesion and trust about their neighborhood. The example items were 'How much do you agree that people in your neighborhood are willing to help each other? Or are close?' The response ranged from 1 (completely disagree) to 4 (agree a lot). The reliability was not low, but acceptable ($\alpha = 0.59$ for parents and $\alpha = 0.60$ for adolescents). On average, parents somewhat disagreed ($M = 2.4$, $SD = 0.66$) and adolescents somewhat agreed ($M = 2.61$, $SD = 0.67$) that their neighborhood was cohesive and neighbors were trustworthy.

Neighborhood Problems.

The Neighborhood Problem Index (CRCDE), which had 16 items, was used to assess the degree to which parents and caregivers perceived their neighborhood as dangerous. A sample question was "How much of a problem is gang fights or fights with weapons?" The participants had to answer in 3 point Likert scale which was 1=Not a problem to 3=A big problem. This measure had high reliability ($\alpha = 0.95$). On average, parents felt neighborhood disorder was somewhat of a problem ($M = 1.89$, $SD = 0.60$).

The Neighborhood Problem index (CRCDE), which used 10 items, was used to assess the degree to which adolescent perceived their neighborhood as dangerous. A sample question was "How much of a problem it is in your neighborhood when you see graffiti on buildings and walls?" The participants had to answer in 3 point Likert scale which was 1=Not a problem to 3=A big problem. This measure had a high reliability ($\alpha = 0.90$). On average, adolescents felt that neighborhood disorder was somewhat of a problem ($M = 1.87$, $SD = 0.60$).

Parental Monitoring.

Parents responded to 12 items that assessed the degree of parental monitoring behaviors they engaged in. A sample item is “How often do you make your child tell you where he/she is going with whom before [child’s name] goes out?” Response options ranged from 1 (never) to 5 (always). The scale demonstrated acceptable reliability ($\alpha = 0.70$). On average, parents felt they were actively engaging in monitoring behaviors ($M = 4.2$, $SD = 0.53$).

Deviant Behavior.

Adolescents responded to 6 items about their non-positive behaviors. For example, the items asked how often they were engaged in deviant behavior like; skipping classes or school without an excuse or stolen or tried to steal something that’s worth more than \$50. Adolescents responded on a 4 point Likert scale ranging from 1 (never) to 4 (very often). Reliability was acceptable ($\alpha = 0.76$). On average, adolescents reported they participated in deviant behavior once in a while ($M = 0.35$, $SD = 0.47$), but the majority (48.5 %) of adolescent reported that they did not engaged in deviant behaviors

RESULTS

Plan of analysis

The data analysis methods are described below. First, the descriptive statistics of each scale/measure by demographic information were explored. Next, to address my first research question, correlational analyses were conducted to determine if parents and adolescents perceived their neighborhood similarly. As an alternative approach, paired sampled t-tests were used to examine the mean difference between different reporters—parents/caregivers and adolescents. For my second research question, correlational analysis was used to investigate the relation between parent/caregiver-reported parental monitoring and adolescent reported deviant behavior. For my third and fourth research questions, hierarchical regression analyses were used to investigate the relationship of neighborhood poverty, parent/caregiver and adolescent reported neighborhood characteristics, and parent/caregiver reported parental monitoring with adolescent reported deviant behavior, after adjusting for individual demographic information (i.e., race/ethnicity, gender, and family poverty level). For the fourth research question, the interactions between neighborhood characteristics and parental monitoring were examined. If the interactions were significant, each variable was dichotomized into +/- 1 standard deviation for low and high groups and the predicted deviance value was plotted. This plotting led to an interpretation of the joint association of neighborhood and parental monitoring variables on adolescent deviant behavior.

Preliminary Descriptive Results

Tables 1 and 2 provide descriptive information about measures of interest for this study as reported by adolescents (Table 1) and parents/caregivers (Table 2). The dependent variable for this study is deviant behavior. Below, demographic differences in deviant behavior are reported.

A one-way between subjects ANOVA was conducted to compare the effect of race on the frequency of adolescent deviant behavior. There was no significant effect of race on adolescent deviant behavior at the $p < .05$ level [$F(2, 198) = 0.42, p = 0.66$]. These results suggest that adolescents' race did not have any effect on adolescent deviant behavior. Specifically, our results suggest those African American adolescents, Latino/a adolescents, and other race adolescents showed similar degree of adolescent deviant behavior. Also, means of each race's deviance response were all in the range of never to once in a while, this suggests that adolescents show a very low degree of deviant behaviors.

An independent-samples t-test was conducted to compare adolescent deviant behavior for adolescents living below the federal poverty line and at or above the federal poverty line. There was not a significant difference ($t(179) = 0.52, p = 0.61$) in deviance scores for adolescent who were living below the poverty line ($M = 0.63, SD = 0.69$) and at range or above the poverty line ($M = 0.57, SD = 0.58$). This result suggests that adolescents that lived below the poverty line showed a similar degree of deviant behavior compared to adolescents who lived in families at or above the poverty line.

An independent-samples t-test was conducted to compare boys' and girls' reports of deviant behavior. There was a significant difference ($t(200) = -2.1, p = 0.037$) between boys ($M = 0.74, SD = 0.66$) and girls ($M = 0.54, SD = 0.65$). This result suggests that boys showed more deviant behavior compared to girls. However, their means for deviant behavior were still in the range of never to once in a while; this suggests that adolescents in these neighborhoods did not engage in many deviant behaviors.

A Pearson product-moment correlation coefficient was computed to assess the relationship between the parents/caregivers' and adolescents' reported neighborhood characteristics and adolescent deviant behaviors. As shown in Table 3, most of the parents' and adolescents' reported neighborhood characteristics were not associated with adolescent-reported deviant behavior. There was a one marginally significant correlation between the adolescent reported informal social control and adolescent deviant behaviors ($r = 0.14, p = 0.058$).

Neighborhood poverty was positively associated with adolescent deviant behaviors ($r = 0.15, p = 0.037$). There was no significant correlation between parental monitoring and adolescent deviant behavior ($r = -0.004, p = 0.95$).

Substantive Results

Correspondence between parent and adolescent reports.

Pearson product-moment correlation coefficients were computed to assess the relation between the parents or caregiver reported neighborhood characteristics and

adolescent reported neighborhood characteristics (See Table 3). There were significant positive correlation between parents/caregivers and adolescents for neighborhood cohesion and trust ($r = 0.15, p = 0.037$), neighborhood connectedness ($r = 0.21, p = 0.003$), and neighborhood problems ($r = 0.26, p = 0.000$). These findings suggest that for these neighborhood characteristics, adults and youth viewed their neighborhoods similarly. However, there were no significant correlations between parent reported neighborhood informal social control and adolescent informal social control ($r = -0.015, p = 0.84$).

Also, a paired sample t-test was conducted to compare the perception of parents' and adolescents' positive neighborhood characteristics. There was a significant difference in the report for parents' reported informal social control ($M = 2.47, SD = 1.03$) and adolescents' reported informal social control ($M = 2.21, SD = 1.07$) measures; $t(191) = -2.41, p = 0.017$. There was also a significant difference in the report for parents' reported cohesion and trust ($M = 2.44, SD = 0.64$) and adolescents' reported cohesion and trust ($M = 2.61, SD = 0.67$) measures; $t(193) = 2.94, p = 0.004$. There were not significant differences in the report for parents' and adolescents' perception of neighborhood connectedness and neighborhood problems.

Hierarchical Regressions—Parent predicted adolescent deviant behavior.

As seen in Table 4, after considering all variables of interest and adjusting for the inter-correlation among these variables, male adolescents were marginally more deviant compared to female adolescents ($\beta = 0.19, p = 0.08$). There were no significant

differences in adolescent deviant behavior by race/ethnicity or family poverty level. For neighborhood characteristics, parent/caregiver reported informal social control was negatively related ($\beta = -0.86, p < 0.05$) to adolescent deviant behavior, such that as parents/caregivers perceived more informal control in their neighborhood, adolescents reported less deviant behaviors. Neither parental monitoring nor the other neighborhood characteristics were significantly associated with adolescent deviant behavior. However, parental monitoring did moderate the association between informal social control and adolescent deviant behavior, ($\beta = 0.25, p < 0.05$).

Parent reported neighborhood informal social control had a significant negative effect on adolescent deviant behavior, and parental monitoring was not significantly associated with adolescent deviant behavior. However, conjointly, parental monitoring and parent reported neighborhood informal social control were associated with adolescent deviant behavior. The interaction ($\beta = 0.25, p < 0.05$) suggested that adolescents who lived in high informal social control neighborhoods and experienced high parental monitoring reported the most deviant behavior. This suggests that increased parental monitoring in positive neighborhoods increased deviant behavior.

Another way to say this is that parental monitoring mattered the most in high informal social control neighborhoods, but in a way contrary to the hypothesis. Specifically, parental monitoring exacerbated the positive association between informal social control and deviant behavior.

Hierarchical Regressions—Adolescent predicted adolescent deviant behavior.

As seen in Table 5, considering all variables of interest and adjusting for the inter-correlation among these variables, male adolescents were more deviant compared to female adolescents ($\beta = 0.22, p < 0.05$). There were no significant associations of race/ethnicity, family poverty level, parental monitoring, or adolescent-perceived neighborhood characteristics with adolescent deviant behavior. For adolescent reported neighborhood characteristics, there were no significant interactions, suggesting that parental monitoring did not modify the association between the neighborhood context and adolescent deviant behavior.

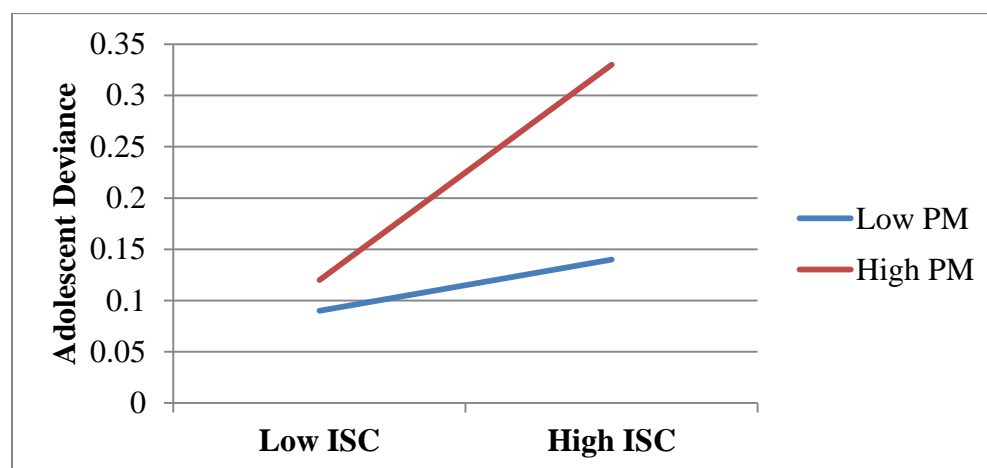


Figure 1. Result of interaction of parent reported neighborhood informal social control and parental monitoring

DISCUSSION

The purpose of the current study was (1) to use multiple contexts (home and neighborhood) that adolescents live in and how those contexts affect adolescent behavioral outcomes; in this case, adolescent deviant behavior, (2) to compare the correspondence of parents' and adolescents' perceptions of neighborhood, (3) to examine the association of neighborhood characteristics (collective efficacy and neighborhood poverty) with adolescent deviant behavior, and (4) determine if parental monitoring could be the protective factor. Previous literature has focused on one specific context (neighborhood context or home context only) and found the associations, yet, these studies suggest that multiple contexts should be associated with adolescent deviant behavior, and these multiple contexts should be studied simultaneously.

As mentioned in the literature review, this study used objective definitions of neighborhood to explore the relationship of neighborhood structural characteristics and adolescent deviant behavior. This study used census tract neighborhood information (e.g. poverty rates, unemployment rates, female headed household rates; Brody et al., 2001) to characterize neighborhoods. This archival data was readily available, but as the literature suggests (Witherspoon & Ennett, 2011) this information may not accurately reflect residents' definition or perceptions of their neighborhoods (Aber & Nieto, 2000).

The first goal of this study was to see the effect of gender and ethnicity on adolescent deviant behaviors. No racial differences were found in adolescent deviant behavior. This finding is different from other studies that suggest that that African

American adolescents engaged in more deviant behavior than their Latino counterparts (e.g. Sampson, Morenoff, & Raudenbush, 2005). The current study's findings suggest that there are other factors beyond race, which may influence deviant behavior. In this study, gender differences were found. Boys showed more deviant behavior compared to their counter parts. The finding is aligned with the current literature, which suggests that boys conduct more deviant behaviors compared to the girls. Willoughby et al. (2007) showed that there were a higher proportion of girls who were not engaged in any risk behaviors (especially for deviant behavior) compared to boys who were not engaged in any risk behavior. This finding shows that girls are less likely to be involved in deviant behavior. In the current study, half of our sample was females and the majority of participants reported that they did not engage in any deviant behavior.

The second goal of this study was to compare the perception between parent-reported neighborhood measures and adolescent-reported neighborhood measures. The results showed that parents perceived more informal social control in their neighborhood, while adolescents perceived more neighborhood cohesion and trust. This aligns with the current literature's findings (e.g. Witherspoon and Ennett, 2011). Both parents and adolescents perceive their neighborhood problems and neighborhood connectedness similarly. The differing perceptions of neighborhood informal social control between parents and adolescents may be explained by the definition of the construct. As the literature suggests, neighborhood informal social control happens when something bad happens in the neighborhood and adults who are living in that neighborhood are willing to become involved in that problem to solve the situation. In the current study, because parents and adolescents occupy different statuses in the neighborhood (parents to regulate

neighborhood and adolescents to be regulated by adults), it stands to reason that parents and adolescents would have different neighborhood experiences (Aber & Nieto, 2000). Further, adolescents may not be aware of what neighborhood adults are doing because adults are not their peer reference group; other adults are the peer reference group for neighborhood adults. Therefore, adults and adolescents may experience their neighborhoods differently due to adolescents' deviant peer relations. Even though adults in the neighborhood may engage in informal social control, the peer context is another strong factor in adolescent deviant behavior; and this could be explored more in future studies (Brody et al., 2001).

In terms of neighborhood cohesion and trust, adolescents felt more cohesion and trust than adults in the neighborhood. Different from adults, adolescents may view their neighborhoods more favorably and be more connected to their neighborhood, because they think of their peer relationship in the neighborhood instead of considering all physical, environmental and social factors of neighborhood. Also, adolescent may have a lack of information about complex social interactions and dynamics that occur among adults in the neighborhood (Witherspoon & Ennett, 2011).

The third goal of this study was to determine if parental monitoring moderated the relationship between neighborhood characteristics and adolescent deviant behavior. Contrary to the current mainstream literature, this study showed the opposite result. Parental monitoring did not buffer the negative relationship between neighborhood characteristics and adolescent deviant behavior. Even worse, parental monitoring exacerbated the positive relation between neighborhood collective efficacy and adolescent deviant behavior. There are a few studies that have shown similar results (e.g.

Sampson, Morenoff, and Raudenbush, 2005). Although collective efficacy, and informal social control in particular, is thought to be a protective factor in distressed neighborhoods (Sampson & Groves, 1989), we found the opposite, such that as parent reported informal social control increased, adolescent deviant behavior increased. This positive association may be the result of parents being aware of this potential protective factor, informal social control, because their adolescent is the one being intervened upon due to his/her deviant behavior. Based on the definition of neighborhood informal social control, the informal social control happens in the neighborhood when problematic issues happen in the neighborhood and adults, rather than an adolescent's own parent, engage in the situation to solve the problem. Also, surprisingly, more parental monitoring exacerbated the positive association between informal social control and adolescent deviant behaviors. This finding may be the result of parents who know that their youth act deviant; therefore, these parents may engage in more parental monitoring despite increased neighborhood informal social control. However, with the present study, we are unable to disentangle the results because of the cross-sectional research design (i.e., all variables measured at the same time point). Yet, even though our interaction findings were contrary to our hypotheses, the study requires further replication and examination of these associations and suggests that there may be a threshold at which more positive neighborhood and family characteristics lose their protective effect.

Limitations and Conclusions

There are strengths and limitation for this study. First of all, this study had a diverse sample, which may increase its generalizability. While most of current studies have a high proportion of a specific racial/ethnic group (e.g. only focus on Latino samples and their behavioral outcome), our study included both African and American and Latino/a families. Generalizability could be increased by including other ethnic groups (e.g., Asian American). Second, our study included multiple neighborhoods in a small city, which helped to compare between neighborhoods and more collectively gather the data to examine the general effect of neighborhoods on adolescent deviant behavior. Third, our study had multiple informants with the same measures and constructs. Parents and children both reported their perception of the neighborhood, which helped us to compare the different perceptions of neighborhoods between adults and adolescents. Fourth, our study measured specific neighborhood perceptions (e.g. informal social control, connectedness) as well as neighborhood structural characteristics (i.e., neighborhood disadvantage) to examine their joint association with adolescent behavioral outcomes.

In addition to this study's strengths, there are some inherent limitations. First, our participants were developmentally all young compared to other empirical studies on deviant behavior. Even though we recruited adolescents through age 17, most of the participants were 11 to 13 years old. Literature suggests that adolescents who are in late adolescence engage in more deviant behaviors compared to the adolescents who are in the early adolescent developmental period (Willoughby et al., 2007). During early

adolescence, parents may structure their adolescents' time, which may allow fewer opportunities to engage in maladaptive behaviors. The previous limitation is related to the second limitation of our study, which is the cross-sectional research design. Although the current study provided a snapshot of adolescents' experiences at different stages of adolescence, it did not allow us to examine how individuals' develop over time. We were not able to see how adolescents behaved as they gained more autonomy from their parents (i.e., transitioning from early to middle to late adolescence). Our study results showed that almost half of the adolescent participants engaged in none of the deviant behaviors, yielding a skewed distribution. We modeled adolescent deviance as a continuous count variable; however, an alternative statistical approach is to use logistic regression and treat adolescent deviance as a dichotomous variable (1 = any deviance, 0 = no deviance). This approach would provide estimation of what impacts the odds of adolescence deviance.

A third limitation of this study is that we did not have multi-informant data on parenting monitoring – no parental monitoring measure for adolescent participants nor did we have both parents' reports of parental monitoring. As the literature suggests, most of the parental monitoring knowledge is based on adolescent's self report (Stattin & Kerr, 2000), so it would be better if we can see adolescent's response to in which degree they feel about their parent's monitoring their behavior. According to Stattin and Kerr (2000), most of the measures used in parental monitoring literature contained only one person's perspective of the parental monitoring aspect. Most frequently, research asks mothers what they know about their children. Stattin and Kerr (2000) suggest that for accurate research results, monitoring should be assessed with both the parents and youth's data.

Multi-data analyses, using multiple informants of parental monitoring, could help us to eliminate bias in the estimates (Oberlander et al., 2011) because parents' and youth's understanding of parental monitoring might be different. For example, for caregivers, parental monitoring might mean making adolescents disengage in deviant behaviors, whereas for adolescents, parental monitoring might mean feeling more connected to their caregiver (Sieverding et al., 2005; Rodgers, 1999).

Further, most of the parental monitoring literature focuses on maternal parental monitoring, not including fathers. Fosco, Stormshak, Dishon, and Winter (2012) argued that most of the family relationships discussed in the literature heavily focuses on the mother and child relationship; therefore, they were interested in determining if father - youth connections impacted parental monitoring and juvenile deviant behavior.

According to their study results, father-youth connectedness was a significant predictor of lowering youth's deviant behavior, so that as a father - youth relationship increased, the youth deviant behavior decreased. There was no association between mother - youth relationship. Based on the results, the researchers hypothesized that parenting roles were different between mothers and fathers (Cummings, Goeke-Morey, & Raymond, 2004; Fosco et al., 2012), and the dynamics between mothers and fathers are related to father's involvement in parenting (Pleck & Hofferth, 2008; Fosco et al., 2012). Therefore, future studies should consider all caregivers' perceptions of parental monitoring and the caregiver-adolescent relationship to get a better understanding of how the family context affects adolescent behaviors.

This study focused on the meso-system (the term meso-system is introduced in Bronfenbrenner's work (1986)), which examines how the home context and

neighborhood context conjointly influence adolescent development. More specifically, this study explored how neighborhood structural and social characteristics (neighborhood poverty and neighborhood collective efficacy) were associated with adolescent deviant behavior and how this relation may be moderated by parental monitoring. In the current literature, there is a growing body of literature that utilizes a holistic perspective to understand how multiple contexts may be associated with adolescents' deviance. This study will add to the growing literature on neighborhoods and family behaviors, and potentially have implications for culturally and contextually focused family interventions for adolescent deviant behaviors.

Within the sociological literature, their focus on deviant behavior is more on "criminal" acts and juvenile justice. However, this study examined milder forms of deviant behavior, such as hitting or threatening others, lying to others, and skipping schools. Furthermore, this study showed that for lower-income African American and Latino youth living in distressed, high violence and crime neighborhoods, youths and their parents reported low levels of deviant behavior. This may suggest and provide an alternative narrative of urban, ethnically diverse youth.

TABLES

Table 1 *Descriptives for Adolescent Sample (N = 206)*

Measures	<i>M (SD)</i>	α	<i>Gender M (SD)</i>		<i>Race and Ethnicity M (SD)</i>		
			Female	Male	Black	Latino	Others
Neighborhood							
Problems	1.87 (0.60)	0.90	1.83 (0.57)	1.88 (0.61)	1.87 (0.58)	1.92 (0.58)	1.72 (0.67)
Connectedness	2.58 (0.80)	0.89	2.60 (0.76)	2.55 (0.82)	2.67 (0.81)	2.40 (0.75)	2.77 (0.77)
Collective Efficacy							
Informal Social Control	2.20 (1.07)	0.91	2.20(1.07)	2.22 (1.07)	2.38 (1.11)	1.96 (0.98)	2.28 (1.08)
Cohesion and Trust	2.61 (0.67)	0.60	0.67 (0.63)	2.57 (0.69)	2.68 (0.70)	2.51 (0.62)	2.72 (0.68)
Youth Outcome							
Deviance	0.35 (0.47)	0.76	0.74 (0.66)	0.54 (0.65)	0.58 (0.62)	0.67 (0.70)	0.59 (0.61)

Note. Female (n = 118), Male (n =84); Black (n = 85), Latino (n= 84), Others (n = 32)

Table 2 *Descriptives for Parent and Caregiver Sample (N = 158)*

Measures	<i>M (SD)</i>	α	Race and Ethnicity <i>M (SD)</i>		
			Black	Latino	Others
Neighborhood					
Disadvantage	0.00 (0.78)	0.84	0.14 (0.73)	- 0.10 (0.82)	- 0.22 (0.84)
Problems	1.90 (0.61)	0.95	1.86 (0.56)	1.97 (0.67)	1.61 (0.50)
Connectedness	2.57 (0.79)	0.82	2.62 (0.76)	2.56 (0.82)	2.69 (0.68)
Collective efficacy					
Informal social Control	2.46 (1.03)	0.92	2.31 (1.04)	2.63 (0.99)	2.49 (1.10)
Cohesion and Trust	2.44 (0.63)	0.59	2.56 (0.52)	2.33 (0.72)	2.43 (0.56)
Parent engagement					
Parental Monitoring	4.20 (0.53)	0.70	4.35 (0.49)	4.11 (0.57)	3.98 (0.40)

Note. Black (n = 65), Latino (n= 76), Others (n = 13)

Table 3 *Correlation Matrix for Adolescent and Parent/Caregiver Reported Measures*

	Neighborhood Poverty	PNC	PISC	PCT	PNP	CNC	CISC	CCT	CNP	Parental Monitoring	Deviant Behaviors
Neighborhood Poverty											
PNC	-0.263**										
PISC	-0.021	0.133									
PCT	-0.037	0.568**	0.091								
PNP	0.393**	-.486**	0.157*	-							
CNC	-0.078	0.210**	0.111	0.208**	-						
CISC	-0.044	0.135	-0.015	0.188**	-0.026	0.174*					
CCT	-0.111	0.224**	0.089	0.200**	-0.128	0.509**	0.262**				
CNP	0.303**	-.170*	0.03	-0.023	.262**	-0.151*	-0.011	-0.127			
Parental Monitoring	0.024	0.044	0.035	0.082	-0.063	0.136	0.220**	0.226**	0.124		
Deviant Behaviors	0.169*	0.017	-0.083	0.062	-0.03	0.046	0.193*	-0.024	0.06	0.026	

Note. PNC = Parent reported Neighborhood connectedness, PISC = Parent reported neighborhood Informal Social Control, PCT = Parent reported neighborhood Cohesion and Trust, PNP = Parent reported Neighborhood Problems, CNC = Child reported Neighborhood Connectedness, CISC = Child reported Informal Social Control, CCT = Child reported Cohesion and Trust, CNP = Child reported Neighborhood Problems, * $p < .05$, ** $p < 0.01$

Table 4 *Final Model of Parent Predicted Adolescent Deviant Behavior*

Variables	Adolescent
	Deviant Behaviors
	Final Model
	<i>B (SE)</i>
Intercept	1.74 (1.51)
Latino	0.15 (0.12)
Other	0.10 (0.16)
Male	0.19 (0.11)
Family Below or Above poverty line	0.11 (0.13)
Neighborhood Poverty	-0.57 (0.60)
Connectedness	-0.092 (0.09)
Cohesion and Trust	0.43 (0.55)
Informal Social Control	-0.86 (0.44)*
Problems	-0.005 (0.11)
Parental Monitoring	-0.46 (0.39)
PMxNRI	0.2 (0.15)
PMxPNISC	0.25 (0.12)*
PMxPNCT	-0.008 (0.14)
PMxPCE	-0.02 (0.18)
PMxPNEI	-0.007 (0.005)
R^2	0.10

Note. $N = 158$. * $p < .05$,

$R^2 =$ Adjusted total R^2 .

All neighborhood perception variables are parent reported.

NRI = Neighborhood Risk Index, PNISC = Parent reported neighborhood Informal Social Control, PNCT = Parent reported neighborhood Cohesion and Trust, PCE = Parent reported Collective efficacy, PNEI = Parent reported Neighborhood Structural Characteristics.

Table 5 *Final Model of Adolescent Predicted Adolescent Deviant Behavior*

Variables	Adolescent
	Deviant Behaviors
	Last Model
	<i>B (SE)</i>
Constant	1.68 (1.63)
Latino	0.11 (0.12)
Other	0.053 (0.16)
Male	0.22 (0.11)*
Family Below or Above poverty line	0.20 (0.13)
Neighborhood Poverty	-0.65 (0.64)
Neighborhood Connectedness	0.094 (0.082)
Neighborhood Cohesion and Trust	-1.14 (0.71)
Neighborhood Informal Social Control	0.61 (0.46)
Neighborhood Problems	0.12 (0.10)
Parental Monitoring	-0.47 (0.46)
PMxNRI	0.16 (0.16)
PMxCISC	-0.093 (0.12)
PMxCCT	0.28 (0.19)
PMxCCE	-0.01 (0.019)
PMxCNEI	0.002 (0.004)
R^2	0.33

Note. $N=206$. * $p<.05$

R^2 = Adjusted total R^2

All neighborhood variables are adolescent reported.

NRI = Neighborhood Risk Index, CISC = Child reported Informal Social Control, CCT = Child reported Cohesion and Trust, CCE = Child reported Collective efficacy, CNEI = Children reported Neighborhood Structural Characteristics.

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Education

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The College of Liberal Arts, Schreyer Honors College
Bachelor of Arts, Psychology
Honors Thesis: *Neighborhood Effects on Diverse Adolescents' Deviant Behavior:
Exploring Parental Monitoring as a Protective Factor*

Honors and Awards

Phi Eta Sigma	<i>Spring 2011</i>
Psi Chi, The International Honor Society in Psychology	<i>Spring 2012</i>
Phi Beta Kappa	<i>Spring 2013</i>

Research Experience

Context and Development Lab *Fall 2012 - Present*
Research Assistant

Supervisor: Dawn Witherspoon, Ph.D.

- researched journal articles related to lab's main focus, Neighborhood and Adolescent Psychology
- participated in analyzing the FAN-C (Understanding Family, Adolescents, and Neighborhoods in context) study data using rudimentary SPSS and excel
- attended lab meeting every week as an undergraduate research assistant
- prepared and presented research proposal and hypothesis related to neighborhood, parenting, juvenile deviant behavior, during lab meeting, under the guidance of Dr. Witherspoon

Cognition and Action Lab *Spring 2013-Present*
Research Assistant

Supervisor: David Rosenbaum, Ph.D.

- Participated in coding the lab data using rudimentary excel
- Administered the study
- Attended lab meeting every week as an undergraduate research assistant

Professional Presentations

Psi Chi National Honor Society Undergraduate Research Conference *Spring 2014*

Related Experience

Big Sister, Big Brothers Big sisters *Fall 2010-Present*

- Visited to school two hours (3pm to 5pm) every Monday afternoon and played with children, and helping doing their homework in this program
- Played with my matched “little brother” and “little sister” as a “big sister”