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## Neighborhood Crime and Perception of Safety as Predictors of Victimization and Offending Among Youth: A Call for Macro-Level Prevention and Intervention Models

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### Abstract

This paper is one of two in a series that reports detailed findings from a larger study that simultaneously explored individual, family and neighborhood level predictors of victimization and offending among youth. The current analysis aims to identify which neighborhood level factors have better predictive power with regard to type of victimization (direct and vicarious measures) and total offending overtime (Wave 1 and Wave 2). Methods: Path analysis was conducted using data from a multi-wave, panel study (N=625) of youth ages 16–19 at Wave 1. A best fitting model was determined showing causal pathways from neighborhood level factors including crime and perception of safety, to direct and vicarious victimization through exposure to violence, and subsequent offending. Findings: Neighborhood crime significantly predicted property victimization. Neighborhood crime and perception of safety significantly predicted vicarious victimization by exposure to violence in the neighborhood. Neighborhood crime and perception of safety were significantly associated with Wave 1 offending. Findings highlight the need for professionals who work with youth to be cognizant of how their environments influence their lives. Prevention and intervention models seeking to create sustainable change among youth should consider mezzo and macro level components that build and strengthen neighborhood capacity through community partnerships.

### Keywords

youth victimization; youth offending; neighborhood crime; fear; perceptions of safety; macro interventions; prevention

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## 1. Introduction

The primary aim of this study is to identify various neighborhood risk factors that predispose youth to both victimization and offending over time. A critique of literature that addresses youth victimization and its outcomes is that moreover, studies of this nature tend to explore discrete types of victimization whereas multiple forms, or poly-victimization, have received little attention (Turner, Finkelhor, & Ormrod, 2010). Further, little research has been conducted that adequately addresses the treatment needs of youth who have been exposed to multiple forms of victimization (Finkelhor, Turner, Ormrod, & Hamby, 2009a). Herein, we seek to better understand various neighborhood pathways to multiple forms of direct and vicarious victimization and their subsequent ability to predict both short and long term offending that will inform intervention efforts that are more suited to their scope and etiology.

Overall, data on the inner workings of multiple risk factors for victimization, its forms-both direct and vicarious, and offending, is lacking when assessed collectively. However, when considered individually and in various combinations, these constructs benefit from a great deal of empirical literature (Guterman, Cameron, & Staller, 2000; Halliday-Boykins & Graham, 2001; Haynie, Silver, & Teasdale, 2006; Margolin, & Gordis, 2000; McNulty & Bellair, 2003; Overstreet, 2000; Smith-Khur, Iachan, Scheidt, Overpeck, Gabhainn, Pickett, et al., 2004; Valois, MacDonald, Bretous, Fischer, & Drane, 2002).

Further complicating a cohesive review of this body of knowledge is the interconnectedness of risk factors that lead to various forms of victimization which, for better or worse, fall across individual, family, and neighborhood levels as well as both direct and vicarious types of victimization. Therefore, focus herein is placed on broader categories used in this study which include risk factors based on neighborhood as well as the overarching categories of direct and vicarious victimization.

The current study is part of a larger study that incorporated individual, family and neighborhood level predictors of victimization and offending among youth (see full model). This study specifically highlights findings related to neighborhood level predictors of victimization and offending among study participants and the subsequent implications. Further, since we do acknowledge that literature, findings, and implications regarding the impact of neighborhood contain a great deal of cross-over into individual and family characteristics, these are discussed in context.

### 1.1. Neighborhood Risk Factors

Largely, neighborhoods that have one or more of risk factors on individual and family levels appear to also be more likely to experience related problems in the context of space. For example, race and family components of socioeconomic status (SES) are often integrated; taken together, it has been found that racial and ethnic minorities have lower SES and live in neighborhoods with higher rates of poverty, drug activity, and violent crime (Crouch et al., 2000; Flowers, Lanclos & Kelly, 2002; McNulty, & Bellair, 2003). Therefore, it is not surprising that many studies indicate that African American youth are more likely to experience both direct and vicarious victimization in their neighborhoods compared to their Caucasian counterparts (Crouch et al., 2000; Gladstein, Rusonis, & Heald, 1992; Loeber, Kalb & Huizinga, 2001; McNulty, & Bellair, 2003; Selner-O'Hagan, Kindlon, Buka, Raudenbush, & Earls, 1998).

In relation to offending behaviors, youth in high SES neighborhoods are significantly less likely to engage in violent delinquency than those in low SES neighborhoods suggesting that similar offending in high SES neighborhoods may be individually based whereas those in

lower SES neighborhoods are context related (Beyers, Loeber, Wikstrom & Stouthamer-Loeber, 2001). Similarly, Bottoms (2006) found that even though rates of delinquent acts increase with individual risk factors, youth who reside in the most disadvantaged neighborhoods are more likely to engage in criminal behaviors even when individual factors are absent. In sum, these findings suggest that the poorest neighborhoods may be so deleterious to youth that any positive individual or family level factors are negated.

Relative to type of victimization and offending, the process and order by which they occur is inconclusive. For example, it remains somewhat unclear if exposure to neighborhood violence contributes to violent behavior, if violent behavior contributes to exposure, if both are consequences of the same factor, or if both are manifestations of the same construct (Halliday-Boykins & Graham, 2001). Both Halliday-Boykins and Graham (2001) and Valois et al. (2002) suggest that a complex set of factors are at work that result in general participation in violence of some sort whether directly or indirectly involved. Therefore, implications for effective interventions suggest that they should be comprehensive-able to address youth victimization and offending on various levels simultaneously regardless of which occurred first.

**1.1.1. Neighborhood Crime**—According to the National Crime Victimization Survey youth are twice as likely as adults to be victims of a violent crime in their own neighborhood (Lauritsen, 2003) while it is estimated that only 11% of these crimes are perpetrated by strangers (Finkelhor & Ormrod, 2000) thus calling into question how social relationships influence criminal behavior within communities. Using the same data, Baumer, Horney, Felson and Lauritsen (2003) found that offenders who commit assaults and robberies in disadvantaged neighborhoods are more likely to be armed with a weapon; consequently, victims are more likely to forcefully resist and sustain injury.

**1.1.2. Perception of safety**—Although the perception of safety is most often studied in a subjective manner, it does hold significant implications as youth's beliefs about neighborhood safety influence the manner in which they formulate their world view and sense of well-being (Garbarino, Dubrow, Kostelny, & Pardo, 1992; Migliorini, & Cardinali, 2011). For example, youth who develop a sense that the world is unpredictable and generally unsafe will internalize this outlook and act accordingly. Further, it has been found that such feelings and perceptions occur more often among youth in poor urban environments with attributes associated with neighborhood disorganization (Austin, Furr, & Spine, 2002; Brunton-Smith, 2011; Brunton-Smith, & Sturgis, 2011; Osofsky, 1995; Overstreet, 2000; Price-Spratlen, 2011). Although the contribution of neighborhood determinants of perceived risk for victimization has emerged as a common theme among related literature, evidence supporting this connection is limited and variable. Brunton-Smith and Sturgis (2011) recently brought clarity to the process by which neighborhood impacts perceptions of fear and safety by suggesting four courses of bearing:

“1) through “rational” responses to variability across neighborhoods in the actual incidence of crime, 2) through the social and organizational characteristics of neighborhoods that promote or inhibit collective efficacy and informal social control, 3) through visual signs of disorder in the neighborhood, and 4) through the moderating effects of neighborhood-level characteristics on the individual-level causes of fear.” (Brunton-Smith, & Sturgis, 2011, p. 334).

## 1.2 Study hypotheses

This study aims to test the following hypotheses; (1) Neighborhood crime and perception of safety will significantly predict personal victimization, (2) Neighborhood crime and perception of safety will significantly predict vicarious victimization by exposure to

violence in the neighborhood, and among family and peers, (3) Neighborhood crime and perception of safety will significantly predict offending at Wave 1 and Wave 2.

## 2. Methods

The study is a secondary analysis utilizing data from two waves of the Buffalo Longitudinal Study of Young Men (BLSYM), from the city of Buffalo, New York. The BLSYM is a five-year, 3 wave, panel study designed to examine multiple causes of adolescent substance abuse and delinquency (See Zhang, Welte & Wieczorek, 2001 for detailed description). Wave 1 and Wave 2 data were used to develop a model that examined offending over time. Wave 1 data was collected from 1992 to 1993, and Wave 2 data was collected from 1994 to 1995 (Zhang et al., 2001). The BLSYM was supported by a five-year grant funded through the National Institute on Alcohol Abuse and Alcoholism (# RO1 AA08157).

### 2.1. Study Participants

The BLSYM study is a general population-based sample of young males (N=625) who were between the ages of 16 and 19 at Wave 1. For inclusion, eligible primary respondents had to have a parent or caregiver (i.e., the main caregiver) participate in Wave 1 of the study. All measures were based on self-reports (Zhang et al., 2001). Recruitment was a detailed, multi-step process as reported in Welte and Wieczorek (1998). Trained interviewers conducted face-to-face interviews at the Research Institute on Addictions at The University of Buffalo (Welte, Barnes, Hoffman, Wieczorek & Zhang, 2005).

Repeated interviews were conducted with the primary respondents using the same interview instrument for each subsequent wave. Using 18-month intervals between waves, primary respondents were interviewed with the same instrument at each subsequent wave. The selected interval was employed to capture major developmental influences on all factors, which would be more difficult to achieve with shorter waves (Zhang, et al., 2001). The retention rate of participants from Wave 1 to Wave 2 was 96% (Zhang et al., 2001).

### 2.2. Measures

#### 2.2.1. Independent Variables

**2.2.1.1. Neighborhood crime:** To capture neighborhood crime, a summary measure reflective of the primary respondent's experiences with crime was used in aggregate means. Sample items included: (1) how often have you known or heard of anyone in the neighborhood including you and your family that was involved in; (a) gang activity, (b) drug activity, (c) destruction and/or vandalism of property, (d) arson, (e) car or motorcycle theft, and (f) gunfire, (2) how often, while in the neighborhood, has someone; (a) been robbed, or had something stolen that was less than \$50, (b) been robbed, or had something stolen worth more than \$100, (c) been sexually assaulted or raped by someone in or outside of their the family? Response categories included, (1) never, (2) once and, (3) twice or more). Responses were summed across items and the mean was calculated. A lower mean score indicated lower neighborhood crime.

**2.2.1.2. Perception of neighborhood safety:** Perception of neighborhood safety was included to test whether a person's perception of how safe they feel influences whether or not they become victims or subsequent offenders. For example, when youth feel unsafe, are they more likely to behave in a manner consistent with offending as a means of self-protection? Perception of neighborhood safety was a one-item measure embedded in the neighborhood section of the original survey. Primary respondents were asked to rate their perception of neighborhood safety as either (1) excellent, (2) good, (3) fair, or (4) poor. This

variable was included to test whether a person's perception of personal safety predicts victimization and/or offending.

**2.2.2. Dependent Variables**—This study measures direct and vicarious victimization among study participants. The direct were measures adopted from the *National Youth Survey* (Elliot, Huizinga & Ageton, 1985). Direct measures include (a) personal and (b) property victimization; and vicarious measures examined exposure to violence across three domains: (1) the neighborhood (2) family and (3) among close friends/peers.

**2.2.2.1. Direct victimization:** Nine items were used to create two linear composite scores as indicators of direct victimization for both personal victimization (3 items) and property victimization (6 items). Log transformations were performed to normalize distributions of both personal and property victimization scores (See Zhang et al., 2001, p.137).

**2.2.2.1.1. Personal victimization:** Direct victimization as demonstrated by personal victimization consists of primary respondent's real number report of instances in the past twelve months in which they experienced the following: (1) been confronted and had something taken directly from you or an attempt made to do so by force or threatening to hurt you, (2) been sexually attacked or raped or an attempt made to do so, (3) been beaten-up or attacked or threatened with being beat up or attacked by someone (excluding sexual attack or rape).

**2.2.2.1.2. Property victimization:** Similarly, direct victimization as demonstrated by property crime consists of primary respondent's real number report of instances in the past twelve months in which they experienced the following sample items: (1) while they weren't around had something stolen from their house or an attempt to do so, (2) while they weren't around, had their bicycles stolen or an attempt made to do so, (3) while they weren't around, had their cars or motorcycles stolen or attempts made to do so (Hartinger-Saunders, Rittner, Wiczorek, Nochajski, Rine & Welte, 2011).

**2.2.2.2. Vicarious victimization:** Vicarious victimization consists of primary respondent's real number report of their knowledge of events that occurred (actual witnessing was not required) in their neighborhood, to their family members, or to their friends or peers. The real number frequencies of event knowledge, taken in sum, represent vicarious victimization for (1) Neighborhood, (2) Family, and (3) Friends or peer level groups. Larger numbers indicate higher levels of exposure to violence within each discrete category (Hartinger-Saunders et al., 2011). Respondent's event knowledge for all three vicarious measures included the preceding twelvemonth period using a scale with response categories: 1=never, 2=once, and 3=twice or more. (Hartinger-Saunders et al., 2011).

**2.2.2.2.1. Vicarious victimization by exposure to violence in the neighborhood:** Vicarious victimization as demonstrated by exposure to neighborhood violence consists of primary respondent's scaled frequency responses regarding knowledge of someone in their neighborhood being: (1) robbed, (2) seriously assaulted, (3) beat-up, shot or stabbed, (4) sexually assaulted, or (4) threatened with physical harm by someone outside their family.

**2.2.2.2.2. Vicarious victimization by exposure to violence in the family:** Vicarious victimization as demonstrated by exposure to family violence consists of primary respondent's scaled frequency responses regarding individuals who reside with them (excluding themselves) being: (1) confronted or had something directly taken from them or an attempt was made to do so, (2) sexually attacked or raped or an attempt made to do so, or (3) beaten-up or attacked or threatened with being beaten up or attacked by someone.



**2.2.2.2.3. Vicarious victimization by exposure to violence with close friends or in peer group:** Vicarious victimization as demonstrated by exposure to friend or peer group violence consists of primary respondent's scaled frequency responses regarding friends or peers being (1) confronted or had something directly taken from them or an attempt was made to do so, (2) sexually attacked or raped or an attempt made to do so, or (3) beaten-up or attacked or threatened with being beaten up or attacked by someone.

**2.2.2.3. Total Offending (Wave 1 and 2):** Total offending was comprised of items adopted from the National Youth Survey (Elliot et al., 1985). The measures for wave 1 and Wave 2 were aggregate frequencies of offending (including minor and serious offenses) based on the primary respondent's real number report of delinquent acts in the preceding twelve month period (see Appendix A) (Zhang, Welte & Wieczorek, 1999; Zhang, Welte & Wieczorek, 2001; Barnes, G., Welte, J., Hoffman, J., Dintcheff, B., 1999). Log transformations were used to normalize distributions of total offending as computed in Wave 2 of the BLSYM (Zhang et al., 1999). The 34 delinquent act items have a Cronbach's alpha of .85 and internal consistency reliability for the constructed measures ranging from .76 for general delinquency to .49 for minor delinquency (Welte et al., 2001).

### 2.3 Statistical Analyses

SPSS (PASW Statistic 18) software was used to run frequencies and correlations and to obtain pertinent demographic data. Table 1 shows the zero order correlations between the study variables. Table 2 contains neighborhood level demographics. MPlus software, version 5.2 was used for the main path analyses to examine the causal interrelationships among individual, family, and neighborhood study variables in relation to type of victimization and offending. Tables 3, 4 and 5 contain the path coefficients for the main analyses.

### 2.4. Sample Characteristics

The all-male sample was primarily White, non-Hispanic (47.3%) and Black, non-Hispanic (47.1%) with ages ranging 16 to 19 years old at Wave 1 ( $M=17.3$ ,  $SD=1.14$ ). The highest percentage of respondents (32.2%) lived in single parent homes; in contrast, 23% of respondents resided with both biological parents at Wave 1 (Hartinger-Saunders et al., 2011). The mean age of biological mothers and fathers were 42 and 44 years respectively with 54% reporting a yearly income less than \$20,000.

Concerning neighborhood crime, 43% ( $n=273$ ) reported living in low crime neighborhoods whereas, the majority (56%) reported living in moderate to high crime neighborhoods (see Table 2). Thirty-nine percent of primary respondents rated their perception of personal safety in their neighborhood as good or excellent. In terms of overall safety, 34% reported feeling safe whereas, 27.5% did not feel safe at all (Hartinger-Saunders, et al., 2011).

Close to half (46.8%) of the primary respondents reported being personally victimized at least one or more times in the preceding twelve months. Additionally, 56% reported being a victim of property crime one or more times. The majority of the sample (82.9%) reported no knowledge of violence against family members. In contrast, 40% reported having knowledge of violence against peers in the neighborhood.

### 2.5 Path analyses

We utilized path analysis, to examine relationships between study variables from a causal standpoint. Based on existing literature, it was assumed that Wave 1 offending was a function of factors that preceded offending to some degree. Therefore, for the overall model, Wave 1 measures were used to predict Wave 1 and 2 offending.

The Chi-Square, Comparative fit index (CFI), the Tucker-Lewis fit index (TLI), the root mean square error of approximation (RMSEA), and weighted root mean square residual (WRMR) were used as the fit indices using a path analytic approach. The procedure used for estimation of the path model was maximum likelihood. Initial path models included those from the exogenous to the endogenous, and outcome variables (See Tables 3–5).

Using results from the initial regressions, we evaluated and removed all non-significant pathways until a final best fitting model was obtained by a non-significant Chi-Square, CFI and TLI both over .95, RMSEA below .05, and WRMR below .8 (Hartinger-Saunders et al., 2011). Results for this analysis as they relate to neighborhood level factors are included in Figure 1 and 2. The fit for the final revised model was Chi-Square = 52.18,  $df = 92$ ,  $n = 625$ ,  $p = .892$ ; CFI = 1.00; TLI = 1.01; RMSEA = .000; WRMR = .024 (Hartinger-Saunders et al., 2011).

**Hypothesis 1**—Neighborhood crime and perception of safety will significantly predict personal victimization. Neighborhood crime ( $p < .05$ ) was a significant predictor of property victimization but not personal victimization (see Table 3) (See Figure 1). Perception of safety did not significantly predict personal or property victimization.

**Hypothesis 2**—Neighborhood crime and perception of safety will significantly predict vicarious victimization by exposure to violence in the neighborhood, and among family and peers. Neighborhood crime ( $p < .001$ ), and perception of safety ( $p < .001$ ) were significant predictors of vicarious victimization by exposure to violence in the neighborhood only (see Table 4) (See Figure 1).

**Hypothesis 3**—Neighborhood crime and perception of safety will significantly predict offending at Wave 1 and Wave 2. Neighborhood crime ( $p < .001$ ) and perception of safety in the neighborhood ( $p < .05$ ), were significantly associated with Wave 1 offending but not Wave 2 (see Table 5) (Figure 2).

### 3. Discussion

Overall, it is apparent that neighborhood factors have unique predictive power with regard to direct and vicarious victimization. Intuitively, we anticipated neighborhood crime and perception of safety to be a significant factor for both victimization and offending among study participants since high crime neighborhoods, by definition, would always include a victim and an offender. Therefore, high crime neighborhoods present a myriad opportunities for youth to experience direct and vicarious victimization.

Data did not support our hypothesis that neighborhood crime and perception of safety would be associated with higher personal victimization. In fact, it found neighborhood crime to be a stronger predictor of property victimization. We did not anticipate that property victimization would be a factor in high crime neighborhoods based on the premise that higher SES neighborhoods would be more desirable for stealing expensive and highly sought after items. This finding supports social disorganization theorists who suggest physical and social disorder signal to offenders that residents are not invested in their neighborhoods, making them easier targets for crime (Sampson et al., 1997). There are also some specific contextual factors to consider as property crime involves no confrontation, lessened risk for resistance and possible injury from a weapon, no risk for retaliation as it is anonymous, and yields more money than personal victimization. Further, the commission of property crimes in one's own neighborhood benefits offenders who: have no means of transportation, have knowledge of which residences will yield profitable goods, and have

knowledge others who are involved in criminal activities to target their properties thus reducing the risk of the property crime being reported to authorities.

Perception of safety in the neighborhood was not a significant predictor of personal or property crime. This finding suggests several possible confounds. First, there appears to be some methodological concerns to consider. As stated previously, measures of neighborhood safety, more often and in this study, rely on subjective measures that are limited in scope and definition of both neighborhood safety and victimization variables. Therefore, studies that utilize both respondent and objective assessments of neighborhood safety are recommended for future research. Second, it may be important to control for individual and family level variables when assessing youth's perception of neighborhood safety as these characteristics, such as resilience and parental monitoring, can act as a shield to fear in one's environment. Lastly, as youth's beliefs about neighborhood safety become integrated into their world view and sense of well-being, it is possible that unsafe neighborhoods have been normalized. Therefore, youth may underestimate fear, as it is relative.

As anticipated, neighborhood crime and perception of safety, significantly predicted vicarious victimization through exposure to violence via the neighborhood, however family and peer exposure were not significant. This suggests that participants are keenly aware of what occurs in their neighborhood. In addition, Youth do not need to witness violence for it to influence how safe they feel; simply knowing that violence occurs threatens their feelings of safety.

Interestingly, neighborhood crime predicted vicarious victimization regardless of youth's perception of safety, which may further support the contention that although neighborhood violence exists, it may not make one feel unsafe, it may be considered normal. Further, it is possible that family and peers may be less likely to disclose incidence of violence outwardly. For example, family may shield this information from youth while peers may hide similar events out of embarrassment.

As hypothesized, neighborhood crime and perception of safety were significant predictors of offending, yet only at Wave 1. This finding may suggest that age has an impact on offending for this sample. The inverse relationship between perceptions of personal safety and offending suggests that an increase in youth's perception of person safety in their neighborhood leads to a decrease in offending. This finding supports Garbarino (1999) who contends that youth often resort to aggressive, retaliatory behaviors as a means of self-protection. If youth feel safe, they will be less suspicious of their environment and less likely to react to it with hyper-vigilance or aggressive behavior.

### 3.1 Study limitations

One clear limitation is the all-male sample. In addition, measures were self-reports bringing a number of limitations in regard to youth potentially inflating or deflating their answers and failing to report accurate information about victimization and offending. Although self-reports have several limitations, The BLSYM developed consent procedures, set up a designated research setting for interviews, and specified methods for protecting confidentiality of the participants to optimize the validity of these measures (Hartinger-Saunders, et al., 2011). Although the age of original wave 1 data set may be criticized, the BLSYM is currently collecting wave 4 data with already impressive retention rates for wave 2 and wave 3 (96% and 92% respectively). In addition, the nature of youth victimization and offending has not changed much with respect to what influences these behaviors. Therefore, the data continue to provide relevant information for researchers as we examine the same individuals over time.



### 3.2 Implications for Practice

We have seen that neighborhood crime and perception of safety predict vicarious victimization by exposure to violence in the neighborhood. We know from existing literature that the impact of violence exposure goes beyond emotional and behavioral disorders to include academic achievement and adult outcomes (Margolin & Gordis, 2000). Therefore, comprehensive assessments that uncover vicarious victimization among youth are critical for early and effective service provision. Youth residing in high crime neighborhoods may view violence as the norm and subsequently may not report it as such. The exploration of vicarious victimization across multiple levels allows service providers to identify youth who are chronically exposed to violence and target interventions appropriately.

Findings highlight the need for professionals who work with youth to be cognizant of how their environment influences their lives. Service providers must consider where youth live in order to execute a comprehensive plan for families. When prevention and intervention models overlook or ignore mezzo and macro-level components, we miss opportunities to create change on a lasting, and much larger level. In addition, we ignore viable resources to assist in creating change, such as neighbors and other community partners. Further, macro-level interventions can be uniquely developed and positioned to foster collective efficacy and a sense of pride among community members. For example, this can be accomplished through increasing rates of home ownership which can foster various positive outcomes such as: higher levels of stable and long term residency bringing enhanced social relationships and an increased likelihood for neighborhood improvement and beautification. In practice settings, collaborative initiatives such as this, focus on the foundations of neighborhood investment which successfully integrates attention to theory (social learning and social disorganization) while simultaneously providing interventions on individual, family, and neighborhood levels to impact victimization and offending.

### 3.3. Future directions for practice

Herein, we further endorse the Ecological-transactional Model of Community Violence as a conceptual framework to aid in applying findings from empirical literature and to guide new prevention and intervention models (Overstreet & Mazza, 2003). This approach shows promise as it has the capacity to assess various risk factors within the individual, the family, and neighborhood. This multidisciplinary model can aid practitioners in various settings to better understand various neighborhood pathways to multiple forms of victimization and their subsequent impact on youth offending. Use of this holistic approach can promote intervention efforts that are more suited to the scope and etiology of these social problems.

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## Appendix A

### Delinquency: Total Delinquent Acts

Thirty-four items asking how many times the respondent committed the following delinquent acts in the last 12 months:

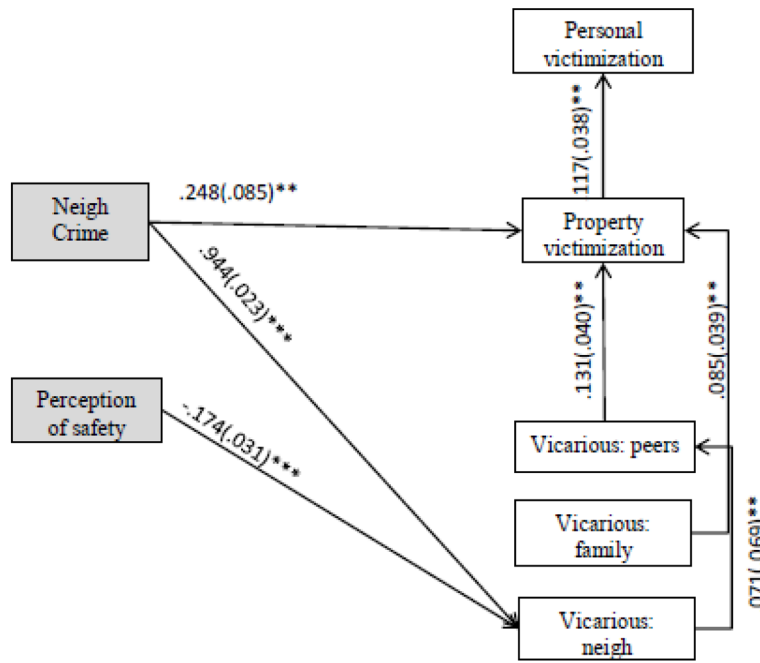
1. Stolen or tried to steal a motor vehicle such as a car or motorcycle
2. Stolen or tried to steal something worth more than US\$100
3. Purposely set fire to a building, a car, or other property, or tried to do so
4. Attacked someone with the idea of seriously hurting or killing that person
5. Involved in gang fights
6. Had or tried to have sexual relations with someone against their will
7. Used force or strong-arm tactics to get money or things from people
8. Broken or tried to break into a building or vehicle to steal something or just look around

9. Driven a motor vehicle while feeling the effects of alcohol
10. Had a motor vehicle accident and left the scene without letting the other person know about the accident
11. Purposely damaged or destroyed property belonging to someone you live with
12. Purposely damaged or destroyed property that did not belong to you or someone you live with
13. Knowingly bought, sold, or held stolen goods, or tried to do any of these things
14. Carried a hidden weapon
15. Stolen or tried to steal things worth US\$100 or less
16. Been paid for having sexual relations with someone
17. Used checks illegally to pay for something, or used intentionally overdrafts
18. Sold marijuana or hashish
19. Hit or threaten to hit anyone other than the people you live with
20. Sold hard drugs other than marijuana or hashish
21. Tried to cheat someone by selling them something that was worthless or not what you said it was
22. Avoided paying for such things as food, movies, or bus or subway rides
23. Used or tried to use the credit cards of someone you didn't live with, without the owner's permission
24. Made obscene telephone calls
25. Snatched someone's purse or wallet or picked someone's pocket
26. Embezzled money
27. Paid someone to have sexual relations with you
28. Stolen money or other things from someone you live with
29. Stolen money, goods, or property from the place you work
30. Hit or threatened to hit someone you live with
31. Been very loud, rowdy, or unruly in a public place
32. Taken a vehicle for a ride without the owner's permission
33. Begged for money or things from strangers
34. Used or tried to use the credit cards of someone you live with, without permission

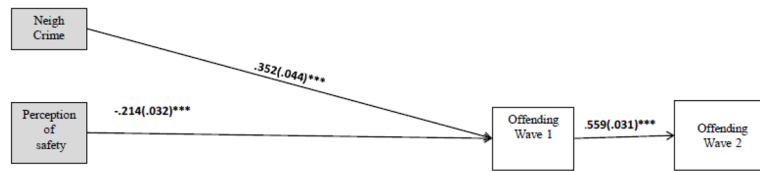
### Highlights

1. The study utilized path analysis.
2. Neighborhood crime significantly predicted property victimization.
3. Neighborhood crime and perception of safety significantly predicted vicarious victimization by exposure to violence in the neighborhood.
4. Neighborhood crime and perception of safety were significantly associated with Wave 1 offending.





**Figure 1.** Path Diagram for Neighborhood level Variables and Victimization, \*\*\* $p < .001$ , \*\* $p < .05$ , \* $p < .10$



**Figure 2.** Path Diagram for Neighborhood Variables and Offending, \*\*\*p<.001, \*\*p<.05, \*p<.10

Table 1

Correlations

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1 Offending wave 1	1.000																
2 Offending wave 2	0.622***	1.000															
3 Personal vict <sup>d</sup>	0.410***	0.280***	1.000														
4 Property vict	0.180***	0.085	0.181***	1.000													
5 Vicarious: family <sup>b</sup>	0.029	0.003	0.045	0.091**	1.000												
6 Vicarious: peers	0.373***	0.302***	0.271***	0.145***	-0.019	1.000											
7 Vicarious: neigh	0.388***	0.240***	0.174***	0.115**	0.095	0.092**	1.000										
8 Neighborhood crime	0.401***	0.223***	0.197***	0.160***	0.080	0.155***	0.819***	1.000									
9 Perception of safety	0.211***	0.118**	0.133**	0.090**	0.069	0.055	0.466***	0.686***	1.000								
10 Parent monitoring	-0.319***	-0.251***	-0.144***	-0.074	-0.021	-0.028	0.220***	0.258***	0.237**	1.000							
11 Single parent <sup>c</sup>	-0.135**	-0.097	-0.058	-0.035	-0.045	-0.022	0.033	0.074	0.068	0.013	1.000						
12 Parent/sig. other	0.058	0.075	-0.004	0.018	0.085**	0.032	0.071	0.067	0.082**	-0.021	-0.363***	1.000					
13 Other living arrange	0.130**	0.070	0.053	0.066	0.007	-0.027	0.027	0.046	0.080**	-0.127**	0.568***	0.282***	1.000				
14 SES	-0.052	-0.004	0.019	-0.020	0.002	0.107**	0.159***	0.208***	0.213***	0.137***	0.167***	-0.014	-0.078	1.000			
15 Race	0.024	0.014	-0.004	-0.004	0.023	-0.073	0.098**	0.204***	0.240***	-0.096**	0.112**	0.016	0.127**	0.185***	1.000		
16 Mom support	-0.132**	-0.122**	-0.066	-0.059	-0.006	0.024	0.099**	0.121**	0.128**	0.458***	0.080**	-0.032	-0.093	0.070	0.092**	1.000	
17 Dad support	-0.095	-0.091**	-0.039	-0.041	-0.081**	0.022	0.101**	0.166***	0.108	0.295***	-0.047**	-0.084	0.020	0.111**	0.065	0.319**	1.000

Notes:

<sup>a</sup>Personal vict = personal victimization.

<sup>b</sup>Vicarious: family =Vicarious exposure to violence through the family; same with peers and neighborhood. Variables 12 through 14 describe family structure.

\*\*\* p<.001 level,

\*\* p<.05 level

**Table 2**

## Neighborhood Sample Characteristics

Description	n	%
Pattern of homeownership (n=622)		
Everyone rents	100	16.1
More renters than homeowners	183	29.4
Equal number of both	96	15.4
More homeowners than renters	113	18.2
Almost everyone owns a home	130	20.9
Neighborhood where PR lived most of his life (n=625)		
Yes	333	53.3
No	292	46.7
Amount of people PR recognizes in neighborhood (n=625)		
A lot	411	65.8
Fair number	140	22.4
Hardly any	63	10.1
None	11	1.8
Neighborhood friendliness (n=625)		
Excellent	74	11.8
Good	223	35.7
Fair	244	39.0
Poor	84	13.4
PR's relatives in neighborhood (n=625)		
Yes	287	45.9
No	338	54.1
Number of children in PR's (n=625)		
Neighborhood		
A lot	396	63.4
Fair number	196	31.4
Hardly any	31	5.0
None	2	.3
Perceived personal safety in neighborhood (n=625)		
Excellent	81	13.0
Good	162	25.9
Fair	210	33.6
Poor	172	27.5

**Table 3**

Initial Model: All Exogenous Variables on Direct Victimization Variables

	Estimate	.E.	Est./S.E.	Two-Tailed P-Value
Personal Vic On				
Neigh Crime	0.121	0.083	1.467	0.142
Perception Safe	0.018	0.054	0.335	0.737
Parent Monitor	-0.100	0.044	-2.254	0.024**
Single Parent	-0.050	0.038	-1.309	0.191
SES	0.026	0.040	0.664	0.506
Race	-0.015	0.040	-0.382	0.702
Mom Support	0.000	0.044	-0.007	0.995
Dad Support	0.004	0.041	0.087	0.931
Property Vic	0.117	0.038	3.058	0.002**
Vicarious: Family	0.025	0.038	0.646	0.518
Vicarious: Peer	0.228	0.038	5.972	<.001***
Vicarious: Neigh	-0.007	0.068	-0.109	0.913
Property Vic On				
Neigh Crime	0.248	0.085	2.918	0.004**
Perception Safe	-0.049	0.056	-0.888	0.375
Parent Monitor	-0.024	0.046	-0.513	0.608
Single Parent	-0.037	0.040	-0.933	0.351
SES	-0.015	0.041	-0.357	0.721
Race	-0.023	0.042	-0.544	0.586
Mom Support	-0.030	0.046	-0.652	0.515
Dad Support	-0.007	0.042	-0.155	0.876
Vicarious: Family	0.085	0.039	2.179	0.029**
Vicarious: Peer	0.131	0.040	3.267	0.001**
Vicarious: Neigh	-0.106	0.070	-1.505	0.132

\*\*\*  
 $p < .001$ ,\*\*  
 $p < .05$ ,\*  
 $p < .10$



Table 4

Initial Model: All Exogenous Variables on Vicarious Victimization Variables

	Estimate	S.E.	Est./S.E.	Two-Tailed P-Value
Vicarious: Peer On				
Neigh Crime	0.082	0.085	0.966	0.334
Perception Safe	-0.029	0.055	-0.525	0.600
Parent Monitor	-0.035	0.046	-0.761	0.447
Single Parent	-0.006	0.040	-0.147	0.883
SES	0.126	0.040	3.121	0.002**
Race	-0.085	0.041	-2.065	0.039**
Mom Support	0.054	0.045	1.201	0.230
Dad Support	0.027	0.042	0.650	0.515
Vicarious: Family				
Vicarious: Neigh	-0.036	0.039	-0.927	0.354
Vicarious: Neigh	0.171	0.069	2.466	0.014**
Vicarious: Family On				
Neigh Crime	-0.034	0.087	-0.393	0.695
Perception Safe	0.045	0.057	0.800	0.424
Parent Monitor	0.018	0.047	0.384	0.701
Single Parent	-0.054	0.041	-1.339	0.181
SES	0.022	0.042	0.528	0.598
Race	0.025	0.042	0.580	0.562
Mom Support	0.027	0.046	0.584	0.559
Dad Support	-0.090	0.043	-2.119	0.034**
Vicarious: Neigh	0.102	0.071	1.433	0.152
Vicarious: Neigh On				
Neigh Crime	0.944	0.023	40.336	<.001***
Perception Safe	-0.174	0.031	-5.589	<.001***
Parent Monitor	-0.027	0.026	-1.009	0.313
Single Parent	-0.021	0.023	-0.934	0.350
SES	-0.011	0.023	-0.457	0.648
Race	-0.056	0.024	-2.372	0.018**
Mom Support	0.014	0.026	0.536	0.592
Dad Support	-0.004	0.024	-0.168	0.867

\*\*\*  
 $p < .001$ ,\*\*  
 $p < .05$ ,\*  
 $p < .10$

**Table 5**

Initial model: All Exogenous variables on Offending (Wave 2 &amp; Wave 1)

	Estimate	S.E.	Est./S.E.	Two-tailed P-value
Offending Wave 2 On				
Offending Wave 1	0.571	0.036	15.884	<.001 ***
Neigh Crime	-0.089	0.069	-1.287	0.198
Perception Safe	0.010	0.044	0.217	0.829
Parent Monitor	-0.060	0.038	-1.599	0.110 *
Single Parent	-0.012	0.032	-0.369	0.712
SES	0.018	0.033	0.551	0.582
Race	0.019	0.033	0.580	0.562
Mom Support	-0.015	0.036	-0.426	0.670
Dad Support	-0.021	0.034	-0.614	0.539
Personal Vic	0.018	0.035	0.528	0.597
Property Vic	-0.038	0.032	-1.179	0.238
Vicarious: Family	-0.014	0.031	-0.437	0.662
Vicarious: Peer	0.084	0.034	2.450	0.014 **
Vicarious: Neigh	0.054	0.056	0.962	0.336
Offending Wave 1 On				
Neigh Crime	0.268	0.068	3.919	<.001 ***
Perception Safe	-0.103	0.044	-2.313	0.021 **
Parent Monitor	-0.215	0.036	-5.890	<.001 ***
Single Parent	-0.133	0.032	-4.195	<.001 ***
SES	-0.033	0.033	-1.016	0.309
Race	-0.008	0.033	-0.244	0.807
Mom Support	0.026	0.036	0.722	0.471
Dad Support	-0.006	0.034	-0.190	0.849
Personal Vic	0.244	0.033	7.467	<.001 ***
Property Vic	0.034	0.032	1.070	0.284
Vicarious: Family	-0.014	0.031	-0.435	0.663
Vicarious: Peer	0.240	0.033	7.319	<.001 ***
Vicarious: Neigh	0.077	0.056	1.367	0.172

\*\*\*  
p<.001,\*\*  
p<.05,\*  
p<.10