EMPIRICAL RESEARCH



Race, Ethnicity, and Adolescent Violent Victimization

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Abstract The risk of adolescent violent victimization in the United States varies considerably across racial and ethnic populations; it is unknown whether the sources of risk also vary by race and ethnicity. This study examined the correlates of violent victimization for White, Black, and Hispanic youth. Data collected from 11,070 adolescents (51 % female, mean age = 15.04 years) during the first two waves of the National Longitudinal Study of Adolescent to Adult Health were used to estimate group-specific multilevel logistic regression models. The results indicate that male, violent offending, peer deviance, gang membership, and low self-control were significantly associated with increased odds of violent victimization for all groups. Some activities—including getting drunk, sneaking out, and unstructured socializing with peers—were risk factors for Black adolescents only; skipping school was a risk factor only for Hispanic adolescents. Although there are many similarities across groups, the findings suggest that minority adolescents are particularly vulnerable to violent victimization when they engage in some activities and minor forms of delinquency.

Keywords Adolescent violent victimization · Race · Ethnicity

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Introduction

The National Crime Victimization Survey (NCVS) reveals that the relative risk of violent victimization in the United States varies considerably across racial and ethnic populations, with the overall violent victimization rates for non-Hispanic Blacks higher than rates for Hispanics, and Hispanic rates higher than those for non-Hispanic Whites (Truman 2011). Though most adolescent victimization studies control for race and ethnicity in their multivariate models, it is unclear whether the predictors of violent victimization are similar across different racial and ethnic adolescent populations. Studies on the causes and correlates of victimization identify risk and protective factors at both the contextual and individual levels that are hypothesized to structure criminal opportunity (Sampson and Wooldredge 1987; Wilcox et al. 2007). According to Wilcox et al. (2003, p. 60), criminal opportunity "represents the situational ability for crime to occur" and results from "the convergence in time and space of motivated offenders and suitable targets in the absence of capable guardians in individual- and environmental-level contexts." Adolescent violent victimization, therefore, is assumed to result from risky lifestyles and routine activities that bring adolescents viewed as attractive victims into contact with potential attackers without the protection of parents or other guardians who could prevent the incident. From a policy perspective, opportunity models are particularly appealing because they implicate proximate sources of victimization risk that might be amenable to intervention.

¹ For the remainder of the article, we refer to non-Hispanic Whites as Whites and non-Hispanic Blacks as Blacks.



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While the model of criminal opportunity is assumed to be a general one, it is possible that specific indicators of opportunity operate somewhat differently across racial and ethnic adolescent populations. For example, the social and structural disadvantages experienced by racial and ethnic minorities may exacerbate the effects of exposure to opportunities for victimization, while Whites may be insulated from the risk typically associated with some indicators of opportunity for victimization. On the other hand, it may be that the cumulative disadvantages experienced by many racial and ethnic minorities largely dictate victimization risk for adolescents, thus making specific protective and risk factors—such as minor delinquency—less important.

Few studies explicitly focus on differences in correlates of violent victimization by race and ethnicity; those that exist examine females exclusively and include adults (e.g., Dugan and Apel 2003) or victimization within a particular setting, such as schools (Peguero et al. 2015) or prisons (Wooldredge and Steiner 2012). The present study uses the first two waves of data from the National Longitudinal Study of Adolescent to Adult Health (Add Health) to examine how indicators of macro- and micro-level criminal opportunity influence violent victimization for White, Black, and Hispanic adolescents. To do so, we estimate multilevel logistic regression models to examine group-specific correlates of violent victimization. We conclude by discussing the implications of our findings and directions for future research.

A General Multilevel Model of Violent Victimization

Scholars have largely approached the study of victimization from an opportunity perspective that highlights the importance of both community structure and individual routine activities in exposing potential victims to motivated offenders in the absence of capable guardians (Cohen and Felson 1979; Sampson and Wooldredge 1987; Wilcox et al. 2003). Drawing on the principle of homophily, for example, criminologists have argued that individuals who share characteristics and routine activities with offenders are more likely to come into contact with potential offenders (Cohen et al. 1981). At the same time, scholars recognize that individuals are embedded within spatial and social contexts—such as neighborhoods, schools, cities, etc. that can structure criminal opportunities and shape offender decision making (Wilcox et al. 2013). For example, social disorganization and other features of neighborhoods can inform potential offenders about the degree of guardianship in an area, the availability of targets, and the potential to avoid suspicion (Wilcox et al. 2013). Consistent with a general opportunity model of victimization, multilevel studies have documented both micro- and macro-level sources of victimization risk (Wilcox et al. 2007).

Risky Routine Activities

At the individual level, for example, prior research has identified several routine activities assumed to increase exposure to motivated offenders in the absence of capable guardians. Involvement in illegal activities is one of the strongest and most consistent predictors of violent victimization (Lauritsen and Laub 2007). Not only does such behavior expose one to motivated offenders, but it increases target suitability, as these individuals may be perceived as less likely to report their victimization to the police (Sampson and Lauritsen 1990). Numerous studies have reported a significant relationship between delinquent behavior and adolescent violent victimization (e.g., Nofziger 2009; Schreck et al. 2007; Taylor et al. 2008; Tillyer et al. 2011a), and additional studies have associated violent victimization with specific types of illegal behavior. For example, an individual's own violent behavior significantly increases risk (Spano et al. 2008; Zaykowski and Gunter 2012), as does non-violent criminal behavior (Bjarnason et al. 1999). In addition, violent victimization risk has been associated with indicators of substance use and abuse. including recreational drug use (Ruback et al. 2011) and drinking alcohol and getting drunk (e.g., George and Thomas 2000; Ruback et al. 2011). Age-specific delinquent acts, such as skipping school (Burrow and Apel 2008) and sneaking out (Schreck and Fisher 2004) have also been associated with violent victimization.

Beyond one's own illegal behavior, the delinquency of one's peers has been associated with various forms of violent victimization across studies (Lauritsen and Davis Quinet 1995; Schreck et al. 2003; Schreck et al. 2002; Wilcox et al. 2009). From an opportunity perspective, associating with delinquent peers is assumed to expose one to risky situations and potential offenders. Researchers have also found a positive relationship between gang membership and violent victimization (e.g., Gibson et al. 2009).

Non-deviant routine activities can also increase adolescent violent victimization risk. Unstructured activities that bring youth into contact with peers in the absence of adult supervision increase risk. Variables such as unstructured socializing with peers (Gibson 2012), driving around with friends (Schreck et al. 2002), and hanging out with friends (Schreck et al. 2004) are all associated with an increased risk of violent victimization.

Guardianship

The parent-child relationship has also been the focus of adolescent victimization studies, as parents have the



potential to provide guardianship, thus reducing opportunities for victimization. Living in a two parent household may reduce adolescent violent victimization risk, as households with more adults may offer more protection to adolescents (Bjarnason et al. 1999; Burrow and Apel 2008). Studies have also found significant effects of attachment to parents, parental feelings toward the child, and the family climate (Schreck and Fisher 2004; Schreck et al. 2004; Wilcox et al. 2009). However, the evidence on more direct parental control and supervision, such as monitoring and rule setting, is limited and mixed (Bjarnason et al. 1999; Stewart et al. 2006; Tillyer et al. 2011b).

Target Characteristics

Certain individual traits such as low self-control and impulsivity are associated with an increased risk for violent victimization, with the assumption being that some characteristics increase one's exposure to risky situations, reduce one's ability to secure guardianship, and/or increase one's target suitability (see Finkelhor and Asdigian 1996). For example, Schreck (1999) has argued that those with a low tolerance for frustration may be quick to anger, thus increasing the likelihood they will provoke an attack or counter attack. Significant relationships have been observed between violent victimization and indicators of low self-control (Daigle et al. 2008) and impulsivity (Wilcox et al. 2009) across data sources, and a recent metaanalysis by Pratt et al. (2014: 87) confirms "that selfcontrol is a modest vet consistent predictor victimization."

Similarly, other characteristics can create real or perceived vulnerabilities that put youths at risk for violent victimization. For example, those with low self-esteem may be at increased risk for violent victimization because they may appear weak to potential offenders and unlikely to stop an attack (Egan and Perry 1998). One's physical condition may also be used by potential attackers to gauge target suitability. For example, some research suggests that individuals with physical disabilities are at greater risk for violent victimization (Petersilia 2001; Wilson and Brewer 1992).

Contextual Factors

Victimization scholars have also noted that individuals are embedded within social and spatial contexts, such as neighborhoods, that provide varying levels of criminal opportunity independent of that associated with an individual's routine activities and characteristics. This is reflected in the theoretical integration of social disorganization and opportunity theories, in which social disorganization variables are viewed as indicators of contextual

opportunity (see Sampson and Wooldredge 1987; Wilcox et al. 2003, 2007, 2013). Several studies have relied on social disorganization and related variables to explore how community context influences violent victimization independent of individual-level factors (see Miethe and McDowall 1993; Wilcox Rountree et al. 1994), with researchers generally reporting support for both opportunity and social disorganization variables. Sampson et al. (1997), for example, found concentrated disadvantage, immigrant concentration, and residential stability were associated with violent victimization. Lauritsen (2001), using a special edition of the NCVS that contained areaidentifiers, found that disadvantage is linked with higher rates of violent victimization in central cities, but that immigrant concentration decreases the risk of violent victimization in these same areas. Conversely, Matjasko et al. (2010) reported no effects of a neighborhood factor comprised of neighborhood income, the child poverty rate, and the unemployment rate.

Race, Ethnicity, and Violent Victimization

While the model of criminal opportunity is assumed to be a general one, existing empirical research suggests the influence of specific indicators of opportunity might vary by race and ethnicity. Peguero et al. (2015), for example, have examined how race and ethnicity might interact with school activities to influence school-based violent victimization among tenth graders. They found that involvement in academic extracurricular activities increased risk for ethnic and racial minorities, but not White students. Involvement in athletic activities reduced risk for Black and White students, but increased risk for Hispanic students. Finally, school-based misbehavior increased risk for White students, but this effect was tempered for racial and ethnic minorities.

A few researchers have used the NCVS to examine racial and ethnic differences in risk factors among females exclusively and reveal that while there are many common correlates across groups, there are also notable differences (Dugan and Apel 2003; see also Like-Haislip and Warren 2011). Dugan and Apel (2003), for example, found that high mobility and going out every night increases risk for violent victimization for women of all racial and ethnic groups, while marriage serves as a protective factor for all women. However, owning a home and living in a dormitory reduces risk for White women, but not other women, while dropping out of high school or only having a high school diploma increases risk for White women, but not other women. Living in an urban area is a risk factor for both Black and White women, though the effect is notably larger for Black women; the effect for Hispanic women is



non-significant. Conversely, living in public housing significantly increases violent victimization risk among Hispanic women, but not Black or White women.

A couple additional studies have examined how race might interact with community context to influence violent victimization risk. Wilcox Rountree et al. (1994), for example, found that, although being non-White increased one's risk for violent victimization, ethnic heterogeneity (measured at the city-block pair level) tempered the relationship. Like (2011) used data from the NCVS to compare the influence of city-level urban inequality on violent victimization for non-Hispanic Whites and non-Hispanic Blacks. In terms of individual-level effects, age was inversely related to violent victimization for both Blacks and Whites. Among Whites, females and those who are married were less likely to be violently victimized. Residential stability increased risk for Blacks, but not Whites. Neighborhood perceptions of disorder increased risk for both groups, but neighborhood perceptions of homeless or transient populations increased risk for Blacks only. In terms of the city-level effects, the disadvantage index (which includes the proportion impoverished and the proportion of female-headed households), White-Black segregation, and White-Black economic inequality all significantly increased violent victimization for Blacks only. White-Black segregation and White-Black economic inequality significantly decreased risk for Whites (Like 2011).

Collectively, two conclusions can be drawn from these studies on race, ethnicity, and violent victimization. First, considerable evidence suggests that the correlates of violent victimization do not uniformly affect all racial and ethnic populations. Second, while informative, the findings from the studies reviewed above leave many questions unanswered about the correlates of violent victimization for White, Black, and Hispanic adolescents. Several studies only compare Whites and Blacks; the growing Hispanic population in the United States makes the investigation of ethnicity pertinent to this line of research. In addition, the studies that utilize data from the NCVS are unable to examine the influence of various delinquent behaviors on victimization risk, as the NCVS does not include items on respondents' own criminal activities. This is problematic given the well-established correlation between offending and victimization (Lauritsen and Laub 2007; Jennings et al. 2012). There are also a number of additional known correlates of adolescent violent victimization reviewed in the previous section that these studies do not include, mainly because of the nature of the sample (e.g., adults), the type of outcome (e.g., school-based victimization), or lack of available data on relevant measures. These studies do not explore, for example, how substance use, gang membership, delinquent peers, low self-control,

attachment, or parental supervision influence violent victimization risk for White, Black, and Hispanic adolescents. The present study analyzes survey data from a nationally representative sample of adolescents to examine these and other relationships.

We use a general multilevel opportunity model to examine the correlates of violent victimization for White, Black, and Hispanic youth. Similar to the studies reviewed above, and consistent with a general opportunity model of violent victimization, we anticipate many similarities in the correlates of violent victimization across racial and ethnic groups. We expect, however, that there might be some differences by race and ethnicity and offer two broad competing predictions about the nature of these differences. First, it is possible that minorities will be more negatively affected by the risk factors for violent victimization, as well as the absence of protective factors, such as guardianship. This logic is derived from Macmillan's (2001) discussion regarding how one's structural location with respect to gender, race, and class might condition the effect of victimization on adolescent development. He posits that "social advantage may buffer the long-term costs of criminal violence" (p. 14). If this logic is extended to the influences of victimization, we would expect the social advantage that Whites enjoy to temper the effects of exposure to opportunities for victimization. In other words, the same routine activities that create victimization risk for minority adolescents would be less risky for Whites.

That being said, Macmillan (2001: 14) offers a competing hypothesis regarding the potential moderating influence of race and ethnicity: "limited life chances may be more firmly established" among minorities, thus making individual risk and protective factors less influential. In other words, if opportunities for violent victimization are more ubiquitous among minority youth, indicators of routine activities, guardianship, and target characteristics may have little impact on the prevalence of victimization among these adolescents. Similarly, if opportunities for violent victimization for White adolescents are less common, they may be to able limit their risk fairly easily by avoiding routine activities that offer the rare opportunity for violent victimization.

The Current Study

While there is a well-established set of correlates for violent victimization, it is unclear if the risk and protective factors are similar for White, Black, and Hispanic adolescents. Victimization studies grounded in an opportunity perspective typically control for race and ethnicity, but few have considered how and why the correlates of violent victimization might differ across groups. The current study



aims to contribute to the literature on race, ethnicity, and violent victimization by estimating group-specific models of violent victimization for White, Black, and Hispanic adolescents. We then consider the theoretical implications of our findings for developing a better understanding of the violent victimization experiences of different racial and ethnic groups.

Data

This study uses data from the first two waves of the National Longitudinal Study of Adolescent to Adult Health (Add Health) to examine the correlates of violent victimization for White, Black, and Hispanic youth (Harris 2009). The Add Health is a nationally representative sample of adolescents in grades 7 through 12 during Wave 1 data collection, which occurred during the 1994-1995 academic year. The Add Health researchers used systematic sampling methods and implicit stratification to select 80 high schools and 52 middle schools representative of U.S. schools with respect to region of the country, urbanicity, school size, school type, and ethnicity (Harris et al. 2009).² The first wave of data collection was conducted between September 1994 and April 1995. In-home interviews were also conducted during Wave 1 with roughly 12,000 individuals participating and additional information provided by their parents. Overall, 20,745 adolescents took part in the initial data collection effort. Between April and August 1996, a follow-up data collection effort (Wave 2) was undertaken to re-interview those individuals in their home and update information gathered at Wave 1. The Wave 2 interviews were conducted with 14,738 of the participants from Wave 1 to offer new information roughly 1 year after the original data collection.

Beyond the individual-level data, the Add Health also contains geographic data at the block group, census tract, county, and state level (Billy et al. 1998). The present study uses 1990 census data associated with the census tract the respondent lived in during the Wave 1 interview to approximate neighborhood characteristics. As others have noted, one benefit of the Add Health data is that there is considerable variation with respect to neighborhood characteristics (Haynie et al. 2006).

The Add Health data are useful for the current study for several reasons. First, unlike many regional samples, the diversity in a nationally representative sample provides sufficient variation with respect to race and ethnicity to estimate group-specific models of violent victimization for White, Black, and Hispanic adolescents. Second, many portions of the Add Health are self-administered using a computer, including the sections that ask respondents about their own delinquency and victimization. This differs from the NCVS, which does not gather the information in private, thus leading to the concern that juvenile victimization may not be reliably represented in the NCVS in part because adolescents may be hesitant to discuss victimization in front of other household members (Wells and Rankin 1995; Finkelhor and Wells 2003). Third, it includes measures of established correlates of violent victimization, including self-control and delinquent behavior. In particular, the Add Health, unlike the NCVS, includes a number of measures of minor and serious forms of delinquency that may differentially influence the violent victimization experiences of adolescents. Fourth, the longitudinal nature of the data allows for the establishment of time order. Finally, the Add Health data allow us to nest adolescents within Census tracts to consider how neighborhood conditions might influence risk for violent victimization, which is consistent with the general multilevel opportunity model of violent victimization that informs the current study.

The Add Health includes Waves 1 and 2 data on 7573 White adolescents, 2991 Black adolescents, and 2487 Hispanic adolescents.³ The analyses reported are based on 6627 White adolescents nested within 973 census tracts, 2401 Black adolescents nested within 653 census tracts, and 2042 Hispanic adolescents nested within 580 census tracts.⁴

Measures

Violent Victimization

The dependent variable is a dichotomous outcome measuring whether the respondent reported being a victim of

⁴ As Snijders (2005: 2) describes in his discussion of power and sample size in multilevel modeling, the relatively low average cluster size of the present study (that is, adolescents per census tract) "has in itself no negative consequences for the power of testing regression coefficients. What is limited by this low average cluster size, is the power for testing random slope variances." For this reason, we do not attempt to model any cross-level interactions. Our study, therefore, is unable to explore the ways in which neighborhood-level characteristics might moderate the individual-level effects, as has been demonstrated in prior multilevel victimization research (e.g., Wilcox et al. 2007). We return to this issue in the "Discussion" section.



² Note that the Add Health includes special oversamples, such as Black adolescents with a parent who have a college degree. To account for this and other sampling design features, the present study used sampling weights provided with the Add Health data to create normalized weights that sum to N for each subsample. This removes the scale effect of the weights but retains the correct proportions between the weights, thus producing unbiased estimates and correct significance tests. For more information on how the Add Health created the sample weights, please see *National Longitudinal Study of Adolescent Health: Grand Sample Weight* at http://www.cpc.unc.edu/projects/addhealth/data/guides/weights.pdf.

³ The remaining respondents identified as American Indian, Asian, or Other and were not included in the present study.

violence at the Wave 2 interview. This variable was created based on responses to four survey items asking respondents, "During the past 12 months, how often did each of the following things happen? Someone pulled a knife or gun on you. Someone shot you. Someone cut or stabbed you. You were jumped." Original item responses included "never," "once," and "more than once." If respondents reported that any of these four things happened during the past 12 months they were coded as 1 on this variable; otherwise, they were coded as 0.

Control Variables

To account for time order, the independent variables were measured using Wave 1 data. We included the following control variables in the analyses: male (0 = No, 1 = Yes); age (measured in years); GPA, which measures the respondent's mean grade across four subjects (1 = D or F to 4 = A); and public assistance (0 = No, 1 = Yes), which measures whether the respondent reported at Wave 1 that a resident parent receives public assistance. We also included the variable urban, which measures whether the respondent lives in an urban block group based on census data (0 = No, 1 = Yes).

Violent Offending

Violent offending measures whether respondents reported any violent behavior in the past 12 months based on their responses to four items. Respondents were asked about hurting someone badly enough to need bandages or care from a doctor or nurse, using or threatening to use a weapon to get something from someone, pulling a knife or gun on someone, and shooting or stabbing someone. The variable was coded so that 0 reflects no violent offending in the past 12 months and 1 reflects one or more acts of violence.

Property Crime

Four items were used to create a dichotomous measure of property crime that captures whether the respondent reported theft, shoplifting, and/or burglary during the past 12 months. Respondents were asked about stealing something worth less than \$50, stealing something worth more than \$50, going into a house or building to steal something, and taking something from a store without paying for it. The variable was coded so that 0 reflects no property crimes in the past 12 months and 1 reflects one or more property crimes.

⁵ Diagnostics did not indicate multicollinearity among the study variables (variance inflation factors \leq 1.73).



Sell Drugs

Sell drugs is a dichotomous variable that measures whether the respondent sold marijuana or other drugs in the past 12 months $(0 = N_0, 1 = Y_{es})$.

Drug Use

Drug use is a dichotomous variable that was created from four items asking respondents about their use of illegal drugs in the past 30 days, including marijuana, cocaine, inhalants, LSD, PCP, ecstasy, mushrooms, speed, ice, heroin, and pills without a doctor's prescription. Respondents who reported using one or more of these drugs in the past 30 days were coded as a 1; all others were coded as 0.

Drunk

Drunk is a dichotomous variable that measures whether the respondent reported getting drunk more than once a month in the past year (0 = No, 1 = Yes).

Skip School

Skip school is a dichotomous variable that measures whether the respondent reported skipping school during the current year for a full day without an excuse (0 = No, 1 = Yes).

Sneak Out

Sneak out is a dichotomous variable that measures whether the respondent reported spending the night away from home without permission in the past 12 months.

Peer Deviance

Peer deviance was created from three variables asking respondents about the behaviors of their three best friends. Specifically, they were asked how many smoke at least 1 cigarette a day, how many drink alcohol at least once a month, and how many use marijuana at least once a month, with responses ranging from zero to three friends. These items were averaged to create a scale (alpha = 0.76).

Gang Member

Gang member is a dichotomous variable that measures whether the respondent reported being initiated into a named gang (0 = No, 1 = Yes).

⁶ Unfortunately, the Add Health does not include a measure of gang membership at Wave 1, so we included a Wave 2 measure of gang

Hang Out

We also included a measure of time spent hanging out with friends. Respondents were asked, "How many times did you just hang out with friends in the past week?" Responses ranged from 0 to 3, with higher values indicating higher frequency.

Two-Parent Household

Two-parent household is a dichotomous variable that measures whether the respondent lives in two-parent household $(0 = N_0, 1 = Y_{es})$.

Parental Attachment

Parental attachment was created by taking the mean of four items asking respondents about how close they feel to their mother, how close they feel to their father, how much they think their mother cares about them, and how much they think their father cares about them, with responses ranging from 1 (not at all) to 5 (very much) (alpha = 0.71).

Low Self-Control

While the Add Health does not include a direct measure of low self-control, researchers have developed proxy measures (see, for example, Boisvert et al. 2012). Consistent with this approach, *low self-control* was created by taking the mean of five items asking respondents about the extent to which they have trouble getting along with teachers, paying attention in school, keeping their mind focused, getting their homework done, and getting along with other students, with the original responses ranging from never (0) to every day (4) (alpha = 0.71).

Footnote 6 continued

membership. As gang scholars have noted, an observed relationship between gang membership and violent victimization could represent facilitation, enhancement, or selection effects (see Gibson et al. 2012 for review). Given that violent victimization and gang membership are measured contemporaneously in the present study, readers should be cautious when interpreting the nature of the relationship between these two variables.

Self-Esteem

Self-esteem was created by taking the mean of six items asking respondents about the extent to which they agree with statements that they have a lot of good qualities, have a lot to be proud of, like themselves just the way they are, feel like they are doing everything just about right, feel socially accepted, and feel loved and wanted, with responses coded from strongly disagree (1) to strongly agree (5) (alpha = 0.85).

Physical Vulnerability

Physical vulnerability measures whether the respondent reports any of the following: having difficulty using his or her hands, arms, legs, or feet because of a permanent physical condition; using a cane, crutches, walker, medically prescribed shoes, wheelchair, or scooter to get around because of a permanent physical condition; or using a brace for his or her hand, arm, let, or foot because of a permanent physical condition (0 = No; 1 = Yes).

Physically Fit

Physically fit measures the extent to which the respondent agrees with the statement that he or she is physically fit (1 = Strongly Disagree to 5 = Strongly Agree).

Residential Instability

We created three variables using 1990 census data associated with the census tract the respondent lived in during the Wave 1 interview to approximate neighborhood characteristics. *Residential instability* is the proportion of individuals age 5 and older living in the census tract that lived in a different house in 1985.

Immigrant Concentration

Immigrant concentration is the percent of individuals living in the census tract who are foreign born.

Concentrated Disadvantage

Concentrated disadvantage was created by taking the mean of percent unemployed, percent with income below poverty level, percent aged 25 and older without a high school diploma or equivalency, and percent of households with public assistance income (alpha = 0.88).



⁷ We also created a parental supervision variable by taking the mean of seven dichotomous items asking whether the respondents' parents allowed them to make their own decisions regarding the time they must be home on weekend nights, the people they hang around with, what they wear, how much television they watch, which television programs they watch, what time they go to bed on weeknights, and what they eat. The variable, which was non-significant across the models, was removed from the final analyses presented below due to weak internal consistency (alpha = 0.61).

Analytic Strategy

To examine predictors of violent victimization by race and ethnicity, we began by splitting the sample into three subsamples: Whites, Blacks, and Hispanics. We then computed descriptive statistics for all study variables to examine group differences in variable means. Next, we estimated a series of hierarchical logistic regression models to observe the effects of both the individual- and tract-level variables on violent victimization risk by race and ethnicity. The nesting of level 1 units within level 2 units (adolescents residing in census tracts) is assumed to be nonrandom, thus requiring hierarchical analyses that estimate the influence of variables at both levels while also accounting for the two-level error structure in the data. Multilevel modeling is appropriate for data collected across different units of aggregation (Raudenbush and Bryk 2002) because it distinguishes between effects located at the individual level and those occurring at a higher unit of aggregation (Luke 2004). This process produces unbiased estimates at Level 1 (i.e., respondent-level) and Level 2 (i.e., tract-level) and provides accurate standard errors thereby ensuring proper significance testing (Guo and Zhao 2000; Raudenbush and Bryk 2002).

Results

We calculated descriptive statistics for the full sample and for each sub-group (see Table 1). To identify statistical differences between groups, pair-wise group comparison tests were run between Whites and Blacks, Whites and Hispanics, and Blacks and Hispanics. While 15 % of all respondents indicated they had been violently victimized in the past 12 months, rates were significantly lower for White adolescents (12 %) relative to Black (22 %) and Hispanic adolescents (22 %). There were no statistically significant gender differences between the groups; however, White respondents were slightly younger than Hispanic respondents, who were younger than Black respondents. White adolescents (2.89) reported a higher GPA compared to Hispanic (2.62) and Black adolescents (2.58). In addition, Black (21 %) and Hispanic youth (19 %) were more likely to receive public assistance compared to White (7 %) youth, while Hispanics (83 %) and Blacks (56 %) were more likely to reside in an urban environment compared to Whites (43 %).

Several group differences were also observed across the risky routine activities. White adolescents were less likely to report violent offending (19 %) compared to Blacks (30 %) and Hispanics (25 %), with all differences statistically significant. Thirty-five percent of Hispanic youth reported committing a property offense in the prior

12 months, which is statistically higher than Black youth (25 %) and White youth (27 %). Hispanic (9 %) and Black (8 %) adolescents were also more likely to report selling drugs compared to White adolescents (6 %). No differences were observed in drug use across the groups; however, White (10 %) and Hispanic (9 %) youth were more likely to report getting drunk compared to Black youth (7 %). White (22 %) and Black adolescents (24 %) were less likely to report skipping school compared to Hispanic adolescents (32 %), while Black youth (14 %) were more likely to sneak out compared to White youth (11 %).

The variables tapping exposure to delinquent peers and unstructured socializing with peers also revealed group differences. For example, White youth reported a higher rate of exposure to peer deviance (0.83) compared to Hispanic (0.77) and Black youth (0.71); conversely, Hispanic adolescents (10 %) reported gang affiliation at higher levels compared to Black (6 %) and White (3 %) adolescents. Finally, White adolescents reported more frequent hanging out with friends compared to Black and Hispanic adolescents.

The guardianship measures also indicated statistically significant differences between groups. A higher rate of White youth (74 %) reported living in a two-parent home compared to Hispanic (66 %) and Black youth (40 %), while Hispanics and Blacks also significantly differed from one another. Black adolescents indicated higher levels of parental attachment compared to Whites and Hispanics.

In terms of target characteristics, no group differences were observed for low self-control; however, all three groups differed with respect to self-esteem, with Black adolescents reporting higher levels compared to White and Hispanic adolescents. White youth (4%) were also slightly more likely to be physical vulnerable compared to Black (3%) and Hispanic youth (3%). The groups differed on physical fitness, with Blacks reporting higher levels than Whites and Hispanics.

With regard to the census tract measures, levels of residential instability were similar for Whites and Blacks, and higher for Hispanics. Whites and Blacks lived in areas with fewer immigrants compared to Hispanics. Finally, White adolescents on average lived in areas with lower levels of concentrated disadvantage compared to Black and Hispanic adolescents.

Table 2 presents the group-specific hierarchical logistic regression models of violent victimization. For the White sub-sample, males were significantly more likely to be victimized compared to females, and those with higher grade point averages were at lower risk for violent victimization. In addition, select risky routine activities and target characteristics heightened the risk of violent victimization, while guardianship measures largely operated as protective factors. White adolescents involved in violent



Table 1 Descriptive statistics by race and ethnicity

	Full sample N = 11,070		White N = 6627		Black N = 2401		Hispanic N = 2042		Group comparisons		
	M	SD	M	SD	M	SD	M	SD	W-B	W-H	В–Н
Dependent and control variable	es										
Violent victimization	0.15	0.35	0.12	0.32	0.22	0.41	0.22	0.41	***	***	
Male	0.49	0.50	0.50	0.50	0.47	0.50	0.50	0.50			
Age	15.04	1.61	14.98	1.58	15.24	1.63	15.10	1.75	***	*	*
GPA	2.81	0.77	2.89	0.78	2.58	0.68	2.62	0.75	***	***	
Public assistance	0.11	0.31	0.07	0.26	0.21	0.41	0.19	0.39	***	***	
Urban	0.50	0.50	0.43	0.49	0.56	0.50	0.83	0.37	***	***	***
Risky routine activities											
Violent offending	0.22	0.41	0.19	0.39	0.30	0.46	0.25	0.43	***	***	**
Property crime	0.28	0.45	0.27	0.45	0.25	0.44	0.35	0.48		***	***
Sell drugs	0.07	0.25	0.06	0.24	0.08	0.27	0.09	0.29	*	***	
Drug use	0.14	0.35	0.14	0.35	0.13	0.34	0.15	0.36			
Drunk	0.09	0.29	0.10	0.30	0.07	0.25	0.09	0.28	***		*
Skip school	0.24	0.43	0.22	0.42	0.24	0.43	0.32	0.47	*	***	***
Sneak out	0.11	0.32	0.11	0.31	0.14	0.35	0.12	0.33	**		
Peer deviance	0.80	0.88	0.83	0.89	0.71	0.81	0.77	0.88	***	*	*
Gang member	0.04	0.20	0.03	0.17	0.06	0.23	0.10	0.30	***	***	***
Hang out	2.00	1.00	2.05	0.97	1.91	1.05	1.85	1.05	***	***	
Guardianship											
Two-parent household	0.68	0.47	0.74	0.44	0.40	0.49	0.66	0.47	***	***	***
Parental attachment	4.65	0.54	4.64	0.53	4.69	0.57	4.64	0.60	**		*
Target characteristics											
Low self-control	1.01	0.67	1.01	0.67	1.00	0.67	0.99	0.69			
Self-esteem	4.13	0.59	4.12	0.59	4.25	0.56	4.07	0.60	***	**	***
Physically vulnerable	0.04	0.19	0.04	0.20	0.03	0.17	0.03	0.17	*	*	
Physically fit	3.90	0.91	3.91	0.91	3.96	0.95	3.77	0.89	*	***	***
Census tract characteristics											
Residential instability	0.44	0.12	0.44	0.12	0.43	0.12	0.51	0.12		***	***
Immigrant concentration	0.06	0.11	0.03	0.05	0.04	0.07	0.22	0.22		***	***
Concentrated disadvantage	0.14	0.09	0.12	0.07	0.22	0.10	0.18	0.09	***	***	***

W-B White-Black, W-H White-Hispanic, B-H Black-Hispanic

offending, engaged in property crime, exposed to peer deviance, or affiliated with gangs had significantly higher odds of experiencing violent victimization. Conversely, White adolescents living in a two-parent home and those with higher levels of parental attachment were less likely to be victimized. Finally, White youth with low self-control and those who report being physically fit were at greater risk for violent victimization. The contextual characteristics were unrelated to risk of violent victimization for White adolescents.

For Black adolescents, many risk factors for violent victimization mirrored those observed for White adolescents. For example, being male, participating in violent offending, exposure to peer deviance, being a gang member, and lacking self-control were risk factors that increased the odds of violent victimization. In addition to living in an urban environment, risky routine activities such as getting drunk, sneaking out, and hanging out also increased risk among Black adolescents, none of which were observed for White adolescents. Conversely, committing property crime and being physically fit were not related to the outcome of interest for Black youth. None of the guardianship measures offered protection from violent victimization for this group, which is also a unique finding for this group compared to the other groups. Similar to White adolescents, no contextual effects were observed for Black adolescents.



^{*} $p \le 0.05$; ** $p \le 0.01$; *** $p \le 0.001$

Table 2 Hierarchical logistic models of adolescent violent victimization by race and ethnicity

	White			Black			Hispanic		
	В	SE	OR	В	SE	OR	В	SE	OR
Control variables									
Male	0.95***	0.13	2.58	0.96***	0.17	2.62	1.33***	0.22	3.77
Age	-0.06	0.04	_	0.00	0.06	_	-0.09	0.08	_
GPA	-0.28***	0.07	0.75	-0.13	0.13	_	0.02	0.17	_
Public assistance	-0.10	0.20	_	0.32	0.21	_	-0.50	0.31	_
Urban	0.10	0.14	_	0.49*	0.22	1.64	-0.08	0.32	_
Risky routine activities									
Violent offending	1.01***	0.11	2.74	0.53**	0.20	1.70	0.82***	0.24	2.26
Property crime	0.42***	0.11	1.52	0.22	0.17	_	0.32	0.25	_
Sell drugs	-0.10	0.18	_	0.00	0.32	_	0.48	0.42	_
Drug use	0.00	0.19	_	0.18	0.25	_	0.02	0.30	_
Drunk	0.13	0.16	_	0.64*	0.28	1.89	-0.17	0.38	_
Skip school	0.12	0.14	_	0.27	0.19	_	0.56*	0.24	1.76
Sneak out	0.17	0.16	_	0.62**	0.22	1.87	0.36	0.30	_
Peer deviance	0.33***	0.08	1.39	0.23^{\dagger}	0.12	1.25	0.52***	0.15	1.67
Gang member	2.20***	0.20	9.04	1.88***	0.30	6.54	2.43***	0.38	11.37
Hang out	-0.06	0.05	_	0.13†	0.08	1.14	0.07	0.12	_
Guardianship									
Two-parent household	-0.26*	0.12	0.77	-0.12	0.18	_	-0.26	0.25	_
Parental attachment	-0.17^{\dagger}	0.09	0.84	0.10	0.15	_	-0.46*	0.23	0.63
Target characteristics									
Low self-control	0.27**	0.09	1.31	0.26*	0.12	1.29	0.46**	0.17	1.58
Self-esteem	-0.03	0.11	_	-0.05	0.18	_	0.39^{\dagger}	0.23	1.48
Physically vulnerable	0.12	0.28	_	0.17	0.48	_	0.34	0.48	_
Physically fit	0.27***	0.07	1.30	0.12	0.11	_	-0.16	0.15	_
Census tract characteristics									
Residential instability	0.17	0.56	_	0.21	0.84	_	0.75	1.03	_
Immigrant concentration	0.51	1.02	_	-1.32	1.27	_	-0.29	0.76	_
Concentrated disadvantage	1.27	1.04	_	1.13	1.08	_	1.85	1.49	_
Intercept	-2.53***	0.08	0.08	-1.81***	0.11	0.16	-2.14***	0.15	0.12

 $^{^{\}dagger} p < 0.10; *p \le 0.05; **p \le 0.01; ***p \le 0.001$

The Hispanic model shares several findings with the other two groups: being male, violent offending, engaging in peer deviance, being a gang member, and lacking self-control all increased the risk of violent victimization for Hispanic youth. Unlike the other groups, skipping school operates as a risk factor for Hispanic adolescents. Similar to Whites, parental attachment was a protective factor for Hispanics. Finally, and similar to the other groups, no contextual factors were associated with risk of violent victimization for Hispanic youth.

Overall, these models indicate similarities and differences in risk factors for violent victimization among White, Black, and Hispanic youth. First, several risk factors—male, violent offending, peer deviance, gang membership, and low self-control—were associated with adolescent

violent victimization risk regardless of race and ethnicity. Second, there were some group-specific correlates. Engaging in property crime and being physically fit, for example, increased the odds of violent victimization among Whites, living in an urban environment increased the risk for Blacks, and Hispanics with higher self-esteem were at greater risk of violent victimization. Conversely, student GPA and two-parent households operated as protective factors for Whites only, and parental attachment reduced the risk for Whites and Hispanics. Third, other activities and relatively minor forms of delinquency—getting drunk, sneaking out, and hanging out—appear to be risky for Black adolescents only. Skipping school was a risk factor for Hispanic adolescents only. Finally, none of the sub-groups were impacted by the contextual variables.



We discuss these findings and their implications in greater detail below.

Discussion

Previous research demonstrates that minority adolescents experience higher rates of violent victimization relative to Whites. The primary aim of the present study was to examine whether the correlates of violent victimization are similar for White, Black, and Hispanic youth. Using data from a nationally representative sample of adolescents, our groupspecific hierarchical logistic regression analyses revealed many similarities in the predictors of violent victimization. Gender, violent offending, peer deviance, gang membership, and low self-control were all associated with violent victimization risk, regardless of race and ethnicity. These findings are consistent with prior research on adolescent violent victimization and a general opportunity model of criminal victimization that focuses on routine activities and characteristics that expose potential victims to motivated offenders in the absence of capable guardianship.

Despite the similarities in findings across groups, some indicators of opportunity for criminal victimization differentially impact adolescents depending on their race and/ or ethnicity. We presented two competing predictions regarding group-specific correlates for violent victimization. The first posited that the correlates of violent victimization would be *more* influential for minority youth, as White adolescents would generally enjoy more social advantages that would insulate them from opportunities for violent victimization regardless of their own risky routine activities, levels of guardianship, and/or target characteristics. We found some support for this perspective with respect to risky routine activities. Of particular interest are the significant effects of getting drunk, sneaking out, and hanging out observed for Black adolescents; none of these effects were observed for the other groups. That is, unstructured socializing with peers and some minor forms of delinquency-many of which are fairly normative in adolescence—seem to create opportunities for violent victimization among Black adolescents exclusively. In addition, skipping school was significantly related to violent victimization for Hispanic adolescents only.

Drawing on Macmillan's (2001) work, one possible explanation for the observed group differences is that the structural location Whites (and to a certain degree, Hispanics) enjoy insulates them from the risk associated with these types of activities. If we examine the differences in concentrated disadvantage across groups, for example, it is apparent that the contexts in which Black youth get drunk, sneak out, and hang out with their friends may differ considerably from Whites, and to a lesser degree,

Hispanics. Indeed, prior research using the NCVS confirms that Blacks, in particular, live in environments characterized by higher rates of violence compared to Whites (Lauritsen and White 2001). Peterson and Krivo's work on race and crime also establishes that minorities—and Black residents in particular—disproportionately live in environments characterized by concentrated disadvantage (Peterson 2012). These varying contexts may help to explain why some indicators of criminal opportunity differentially affect White, Black, and Hispanic adolescents.

Our competing prediction regarding group-specific correlates for violent victimization posited that the correlates of violent victimization would matter less for minority youth, as firmly established disadvantages make individual risk and protective factors less influential. We did find some support for this perspective with respect to the guardianship measures. Living in a two-parent household reduced the risk for violent victimization for White adolescents, and parental attachment reduced risk for both White and Hispanic adolescents. None of the parental variables tapping guardianship were significant for Black youth. Similarly, risk for violent victimization was lower among White adolescents with higher grades; student GPA was not related to victimization risk for Black or Hispanic adolescents. The present study did not originally conceptualize student GPA as an indicator of opportunity for victimization because we did not focus on school-based victimization exclusively; previous studies, however, have used student GPA as a measure of school attachment that might offer guardianship to students (Wilcox et al. 2009). In short, it appears that some indicators of guardianship are not associated with a lower risk of victimization for Black youth. Drawing on the logic from our second set of predictions derived from Macmillan's (2001) work, it might be that opportunities for violent victimization are more ubiquitous for Black youth; therefore, greater effort is required to reduce risk for these adolescents.

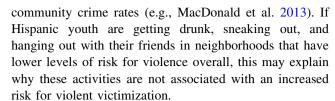
In addition, and also consistent with our second prediction that the correlates would matter less for minority youth, property crime operates as a risk factor for White adolescents only. This is interesting considering that the other routine activity correlates (i.e., getting drunk, skipping school, sneaking out, and hanging out) indicated risk for Black or Hispanic youth, but not Whites. One hypothesis is that Whites travel farther than minorities to commit property crimes. Indeed, Warren et al. (1998) report that White rapists travel farther than their minority counterparts, a finding they attribute to class differences in mobility. Similarly, a recent study by Ackerman and Rossmo (2015) used 5 years of Dallas police data on offenders processed through the adult criminal justice system and found that the residence-to-crime distances were longer for Whites compared to minorities. If White



adolescents commit property crimes on average farther from their homes relative to minorities—possibly because of greater access to motor vehicles—this increased distance might expose them to additional opportunities for violent victimization. Testing this hypothesis, however, will require other data sources.

While the present study was not designed to test crosslevel interactions—that is, the extent to which contextual variables condition the effects of individual-level variables on violent victimization risk⁸—our findings are consistent with predictions made by opportunity scholars regarding the moderating influence of context on individual-level risk factors for victimization. Specifically, Wilcox et al. (2013) hypothesize that the effects of individual-level risk factors will be greater in high criminal opportunity contexts and the effects of individual-level protective factors will be greater in low criminal opportunity contexts. This is one potential explanation for some of the race-specific effects observed in the present study: Black adolescents carry out their minor delinquent activities in high opportunity contexts, thus increasing their risk for violent victimization. Similarly, White adolescents may be more likely than Black adolescents to live in neighborhoods and attend schools in which parental and school attachments can be effectively leveraged for guardianship when necessary. Additional research is needed to directly test these assertions.

As the Hispanic population in the U.S. continues to grow, it is becoming increasingly important to understand how the risk factors for violent victimization might vary by ethnicity. Though Hispanic adolescents reported violent victimization at the same rate as Black adolescents in the current study, there were some important differences in correlates. For example, getting drunk, sneaking out, and hanging out with friends did not increase the odds of violent victimization for Hispanics, and skipping school was a risk factor for Hispanic adolescents only. As discussed above, this could be due to the fact that the context in which Hispanic adolescents carry out these activities is substantively different from that of Black adolescents. In particular, the census tracts in which Hispanic adolescents live have a considerably higher level of immigrant concentration. Though social disorganization theorists initially predicted that immigrant concentration would be positively associated with crime, there is a considerable body of subsequent research that demonstrates the opposite effect: immigrant concentration is associated with lower



It is also plausible that there are additional neighborhood dynamics not captured in the present study that could differentially influence adolescent violent victimization risk across groups. In a recent report, Xie and Planty (2014) use area-identified NCVS data and find that young adult Hispanics living in "new" Hispanic areas are more likely to be violently victimized relative to those living in established or small Hispanic areas. This relationship was not observed for Whites and Blacks. Additional research is needed to determine whether this relationship holds for adolescents when individual-level correlates of violent victimization are controlled. Relatedly, future research should also examine whether differences in culture of origin among Hispanics produce differences in the correlates of adolescent violent victimization among these groups. Indeed, research by Miller and Lopez (2014) demonstrates there are considerable differences in the prevalence of violent victimization across Hispanic subgroups in the U.S.

Unexpectedly, the census tract and drug-related variables did not directly influence the risk of violent victimization for any of the groups. As for the census variables, it might be that the effect of neighborhood context on adolescent violent victimization risk is more nuanced. As discussed above, neighborhood characteristics might interact with individual-level indicators of opportunity to influence risk. Furthermore, recall that the sample is comprised of adolescents who are in school. It is plausible that the school, rather than the census tract, better approximates the context in which these adolescents carry out many of their routine activities. As for the drug-related risky routine activities, the inclusion of other variables that is, violent offending, peer deviance, and gang membership—likely explains the null effects. It might be that drug dealing and drug use are largely risky because they tend to be associated with these other dangerous activities.

While there are many strengths to the Add Health data, there are some limitations that warrant discussion and suggest directions for future research in the area of race, ethnicity, and violent victimization. First, it is possible that the adolescents at greatest risk for violent victimization may be the very students who do not attend school and are thus excluded from school-based samples such as the Add Health. Unfortunately, this limitation is not unique to victimization studies that rely on school-based samples; household surveys such as the NCVS may also exclude highly mobile populations, including homeless and runaway youths (Addington 2008; Truman 2011). Future



As described in note 4, Snijders (2005) cautions that a small number of individuals nested within an aggregate unit (i.e., census tract) limit the ability to test for cross-level interactions. Thus, we were unable to explore the ways in which neighborhood-level characteristics might moderate the individual-level effects, as has been demonstrated in prior multilevel victimization research (e.g., Wilcox et al. 2007).

research examining racial and ethnic differences in the correlates of violent victimization should attempt to survey high-risk youth who may be excluded from studies that rely on school or household samples. Related, the data analyzed in the present study are approximately 20 years old. It is unknown whether the same risk and protective factors identified in the present study continue to influence violent victimization for White, Black, and Hispanic adolescents today. Future research should examine the extent to which cultural and political factors impact the violent victimization experiences of racial and ethnic minorities over time.

Though the present study represents an initial step in examining racial and ethnic differences in the correlates of violent victimization, additional data sources are needed to fully unpack the situational contexts that put adolescents at risk for violent victimization. Beyond the potential moderating effects of neighborhood context discussed above, it is also plausible that the peer networks in which youth conduct these activities vary, thus affecting the extent to which these activities put adolescents at risk for violent victimization. While the present study includes peer measures, the data do not allow us to determine the specific social environment in which the youth carried out their delinquent activities. White adolescents, for example, report higher rates of getting drunk compared to Black adolescents, but this activity is only a risk factor for Blacks. It is possible that when Black adolescents engage in minor forms of delinquency, their social environment leaves them more vulnerable to physical attacks. Given the current findings, future research should examine the specific neighborhood and social contexts in which youth engage in minor forms of delinquency to better understand why these relationships vary across groups.

More broadly, scholars should continue to explore how the victimization experiences of adolescents—in terms of both levels and sources—vary by race and ethnicity. The present study focused on victimization prevalence—that is, whether or not the respondent reported any violent victimization in the past year. Unfortunately, because the Add Health does not collect incident-level data, it was not possible to calculate a count of violent victimization experiences. Yet a considerable body of research suggests that a large proportion of crimes are perpetrated against repeat victims (Farrell and Pease 2014). It is plausible that the phenomenon of repeat victimization varies depending on the source of victimization risk, which may differ across racial and ethnic groups. Tillyer (2014) has argued that different sources of violent victimization risk (such as living in a disadvantaged neighborhood or attending an unsafe school) may be more difficult than others to alter (such as going out at night or frequenting liquor establishments). If the sources of victimization risk for minority adolescents are more enduring than those of White adolescents, they may experience repeat victimization at higher rates. In short, examining violent victimization prevalence does not allow us to determine whether some victims are better positioned to change their risk for subsequent victimization. Future research should explore racial and ethnic differences in the levels and sources of repeat violent victimization.

From a policy perspective, our findings suggest that victimization prevention efforts may not have uniform effects across adolescents and that minority youth in particular may benefit from certain interventions. Some activities—such as unstructured socializing with peers, getting drunk, sneaking out, and skipping school-are typically viewed as relatively harmless and developmentally normal, thus making intervention from a *delinquency* prevention standpoint seem unwarranted. Yet the findings from the present study suggest that these factors may differentially harm some groups of adolescents by elevating their violent victimization risk and therefore intervention may be in order. More broadly, our study suggests that a "one size fits all" approach to victimization reduction may be inefficient. Instead, prevention efforts should account for the fact that the risk associated with various adolescent routine activities may differ depending on individual characteristics and contextual factors.

Conclusion

The present study found many similarities in the risks for violent victimization across White, Black, and Hispanic youth. Consistent with prior research, gender, violent offending, peer deviance, gang membership, and low selfcontrol were significantly associated with violent victimization for all groups (e.g., Burrow and Apel 2008; Daigle et al. 2008; Gibson et al. 2009; Schreck and Fisher 2004; Schreck et al. 2003; Spano et al. 2008; Taylor et al. 2008; Wilcox et al. 2009; Zaykowski and Gunter 2012). There were, however, some differences across groups that might be explained by the context in which adolescents carry out their routine activities. For example, getting drunk, sneaking out, and unstructured socializing with peers were risk factors for Black adolescents only, while skipping school was a risk factor only for Hispanic adolescents. Future research should explore how the neighborhood and peer contexts of adolescents account for these differences, as well as possible differences in the sources and rates of repeat victimization across groups.

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Author Contributions MT conceived of the study, participated in its design, performed the statistical analysis, and drafted the manuscript. RT conceived of the study, participated in its design and interpretation of the data, and helped to draft the manuscript. Both authors read and approved the final manuscript.

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Ethical Approval This article does not contain any studies with human participants or animals performed by any of the authors.

References

- Ackerman, J. M., & Rossmo, D. K. (2015). How far to travel? A multilevel analysis of the residence-to-crime distance. *Journal of Quantitative Criminology*, 31, 237–262.
- Addington, L. A. (2008). Current issues in victimization research the NCVS's ability to study them. Prepared for presentation at the Bureau of Justice Statistics Data User's Workshop, February 12, 2008, Washington, DC.
- Billy, J. O. G., Wenzlow, A. T., & Grady, W. R. (1998). National Longitudinal Study of Adolescent Health: Public use contextual database. Chapel Hill: Carolina Population Center, University of North Carolina at Chapel Hill.
- Bjarnason, T., Sigurdardottir, T. J., & Thorlindsson, T. (1999). Human agency, capable guardians, and structural constraints: A lifestyle approach to the study of violent victimization. *Journal* of Youth and Adolescence, 28, 105–119.
- Boisvert, D., Wright, J. P., Knopik, V., & Vaske, J. (2012). Genetic and environmental overlap between low self-control and delinquency. *Journal of Quantitative Criminology*, 28, 477–507.
- Burrow, J. D., & Apel, R. (2008). Youth behavior, school structure, and student risk of victimization. *Justice Quarterly*, 25, 349–380.
- Cohen, L. E., & Felson, M. (1979). Social change and crime rate trends: A routine activity approach. American Sociological Review, 44, 588–608.
- Cohen, L. E., Kluegel, J. R., & Land, K. C. (1981). Social inequality and predatory criminal victimization: An exposition and test of a formal theory. *American Sociological Review*, 46, 505–524.
- Daigle, L. E., Beaver, K. M., & Hartman, J. L. (2008). A life-course approach to the study of victimization and offending behaviors. *Victims and Offenders*, 3, 365–390.
- Dugan, L., & Apel, R. (2003). An exploratory study of the violent victimization of women: Race/ethnicity and situational context. *Criminology*, 41, 959–980.
- Egan, S. K., & Perry, D. G. (1998). Does low self-regard invite victimization? *Developmental Psychology*, 34, 299–309.
- Farrell, G., & Pease, K. (2014). Repeat victimization. In G. Bruinsma & D. Weisburd (Eds.), *Encyclopedia of criminology and criminal justice* (pp. 4371–4381). New York: Springer.
- Finkelhor, D., & Asdigian, N. L. (1996). Risk factors for youth victimization: Beyond a lifestyles/routine activities theory approach. *Violence and Victims*, 11, 3–19.
- Finkelhor, D., & Wells, M. (2003). Improving data systems about juvenile victimization in the United States. *Child Abuse and Neglect*, 27, 77–102.

- George, R., & Thomas, G. (2000). Victimization among middle and high school students: A multilevel analysis. *The High School Journal*, 84, 48–57.
- Gibson, C. L. (2012). An investigation of neighborhood disadvantage, low self-control, and violent victimization among youth. *Youth Violence and Juvenile Justice*, 10, 41–63.
- Gibson, C. L., Miller, J. M., Jennings, W. G., Swatt, M., & Gover, A. (2009). Using propensity score matching to understand the relationship between gang membership and violent victimization: A research note. *Justice Quarterly*, 26, 625–643.
- Gibson, C. L., Swatt, M. L., Miller, J. M., Jennings, W. G., & Gover, A. R. (2012). The causal relationship between gang joining and violent victimization: A critical review and directions for future research. *Journal of Criminal Justice*, 40, 490–501.
- Guo, G., & Zhao, H. (2000). Multilevel modeling for binary data. Annual Review of Sociology, 26, 441–462.
- Harris, K. M. (2009). The National Longitudinal Study of Adolescent Health (Add Health), Waves I & II, 1994–1996; Wave III, 2001–2002; Wave IV, 2007–2009 [machine-readable data file and documentation]. Chapel Hill, NC: Carolina Population Center, University of North Carolina at Chapel Hill. doi:10. 3886/ICPSR27021.v9.
- Harris, K. M., Halpern, C. T., Whitsel, E., Hussey, J., Tabor, J., Entzel, P., & Udry, J. R. (2009). The National Longitudinal Study of Adolescent to Adult Health: Research design (WWW document). http://www.cpc.unc.edu/projects/addhealth/design.
- Haynie, D. L., Silver, E., & Teasdale, B. (2006). Neighborhood characteristics, peer networks, and adolescent violence. *Journal* of Quantitative Criminology, 22, 147–169.
- Jennings, W. G., Piquero, A. R., & Reingle, J. M. (2012). On the overlap between victimization and offending: A review of the literature. Aggression and Violent Behavior, 17, 16–26.
- Lauritsen, J. L. (2001). The social ecology of violent victimization: Individual and contextual effects in the NCVS. *Journal of Quantitative Criminology*, 17, 3–32.
- Lauritsen, J. L., & Davis Quinet, K. F. (1995). Repeat victimization among adolescents and young adults. *Journal of Quantitative Criminology*, 11, 143–166.
- Lauritsen, J. L., & Laub, J. H. (2007). Understanding the link between victimization and offending: New reflections on an old idea. *Crime Prevention Studies*, 22, 55–75.
- Lauritsen, J. L., & White, N. A. (2001). Putting violence in its place: The influence of race, ethnicity, gender, and place on the risk for violence. *Criminology and Public Policy*, 1, 37–60.
- Like, T. Z. (2011). Urban inequality and racial differences in risk for violent victimization. Crime & Delinquency, 57, 432–457.
- Like-Haislip, T. Z., & Warren, P. Y. (2011). Routine inequality: Violent victimization at the intersection of race and ethnicity among females. *Violence and Victims*, 26, 88–102.
- Luke, D. A. (2004). Multilevel modeling. Thousand Oaks, CA: Sage. MacDonald, J. A., Hipp, J. R., & Gill, C. (2013). The effects of immigrant concentration on changes in neighborhood crime rates. Journal of Quantitative Criminology, 29, 191–215.
- Macmillan, R. (2001). Violence and life course: The consequences of victimization for personal and social development. *Annual Review of Sociology*, 27, 1–22.
- Matjasko, J. L., Needham, B. L., Grunden, L. N., & Farb, A. F. (2010). Violent victimization and perpetration during adolescence: Developmental stage dependent ecological models. *Journal of Youth and Adolescence*, 39, 1053–1066.
- Miethe, T. D., & McDowall, D. (1993). Contextual effects in models of criminal victimization. *Social Forces*, 71, 741–759.
- Miller, H. V., & Lopez, K. M. (2014). Prevalence of victimization and exposure to violence in a sample of Hispanic Americans: A research note. *Journal of Interpersonal Violence*, 30, 1593–1610.



- Nofziger, S. (2009). Deviant lifestyles and violent victimization at school. *Journal of Interpersonal Violence*, 24, 1494–1517.
- Peguero, A. A., Popp, A. M., & Koo, D. J. (2015). Race, ethnicity, and school-based adolescent victimization. *Crime & Delinquency*, 61, 323–349.
- Petersilia, J. R. (2001). Crime victims with developmental disabilities: A review essay. *Criminal Justice and Behavior*, 28, 655–694.
- Peterson, R. D. (2012). The central place of race in crime and justice: The American Society of Criminology's 2011 Sutherland address. Criminology, 50, 303–328.
- Pratt, T. C., Turanovic, J. J., Fox, K. A., & Wright, K. A. (2014). Self-control and victimization: A meta-analysis. *Criminology*, 52, 87–116.
- Raudenbush, S. W., & Bryk, A. S. (2002). Hierarchical linear models: Applications and data analysis methods (2nd ed.). Thousand Oaks, CA: Sage.
- Ruback, R. B., Shaffer, J. N., & Clark, V. A. (2011). Easy access to firearms: Juveniles' risks for violent offending and violent victimization. *Journal of Interpersonal Violence*, 26, 2111–2138.
- Sampson, R. J., & Lauritsen, J. L. (1990). Deviant lifestyles, proximity to crime, and the offender-victim link in personal violence. *Journal of Research in Crime and Delinquency*, 27, 110–139.
- Sampson, R. J., Raudenbush, S. W., & Earls, F. (1997). Neighborhood and violent crime: A multilevel study of collective efficacy. *Science*, 277, 918–924.
- Sampson, R. J., & Wooldredge, J. (1987). Linking the micro- and macro-level dimensions of lifestyle-routine activity and opportunity models of predatory victimizations. *Journal of Quantita*tive Criminology, 3, 371–393.
- Schreck, C. J. (1999). Criminal victimization and low self-control: An extension and test of a general theory of crime. *Justice Quarterly*, 16, 633–654.
- Schreck, C. J., Burek, M. W., & Clark-Miller, J. (2007). He sends rain upon the wicked: A panel study of the influence of religiosity on violent victimization. *Journal of Interpersonal Violence*, 22, 872–893.
- Schreck, C. J., & Fisher, B. S. (2004). Specifying the influence of family and peers on violent victimization: Extending routine activities and lifestyles theories. *Journal of Interpersonal Violence*, 19, 1021–1041.
- Schreck, C. J., Fisher, B. S., & Miller, J. M. (2004). The social context of violent victimization: A study of the delinquent peer effect. *Justice Quarterly*, 21, 23–47.
- Schreck, C. J., Miller, J. M., & Gibson, C. L. (2003). Trouble in the school yard: A study of the risk factors of victimization at school. *Crime and Delinquency*, 49, 460–484.
- Schreck, C. J., Wright, R. A., & Miller, J. M. (2002). A study of individual and situational antecedents of violent victimization. *Justice Quarterly*, 19, 159–180.
- Snijders, T. A. B. (2005). Power and sample size in multilevel linear models. In B. S. Everitt & D. C. Howell (Eds.), Encyclopedia of statistics in behavioral science (pp. 1570–1573). Chichester, UK: Wiley.
- Spano, R., Freilich, J. D., & Bolland, J. (2008). Gang membership, gun carrying, and employment: Applying routine activities theory to explain violent victimization among inner city, minority youth living in extreme poverty. *Justice Quarterly*, 25, 381–410.
- Stewart, E. A., Schreck, C. J., & Simons, R. L. (2006). I ain't gonna let no one disrespect me. Does the code of the street reduce or increase violent victimization among African American adolescents? *Journal of Research in Crime and Delinquency*, 43, 427–458.
- Taylor, T. J., Freng, A., Esbensen, A., & Peterson, D. (2008). Youth gang membership and serious violent victimization: The

- importance of lifestyles and routine activities. *Journal of Interpersonal Violence*, 23, 1441–1464.
- Tillyer, M. S. (2014). Violent victimization across the life course: Moving a victim careers agenda forward. *Criminal Justice and Behavior*, 41, 594–613.
- Tillyer, M. S., Fisher, B. S., & Wilcox, P. (2011a). The effects of school crime prevention on students' violent victimization, risk perception, and fear of crime: A multilevel opportunity perspective. *Justice Quarterly*, 28, 249–277.
- Tillyer, M. S., Tillyer, R., Miller, H. V., & Pangrac, R. (2011b). Reexamining the correlates of adolescent violent victimization: The importance of exposure, guardianship, and target characteristics. *Journal of Interpersonal Violence*, 26, 2908–2928.
- Truman, J. (2011). National crime victimization survey criminal victimization, 2010. Washington, DC: U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Statistics, NCJ 235508.
- Warren, J., Reboussin, R., Hazelwood, R. R., Cummings, A., Gibbs, N., & Trumbetta, S. (1998). Crime scene and distance correlates of serial rape. *Journal of Quantitative Criminology*, 14, 35–59.
- Wells, L. E., & Rankin, J. H. (1995). Juvenile victimization: Convergent validation of alternative measurements. *Journal of Research in Crime and Delinquency*, 32, 287–307.
- Wilcox, P., Gialopsos, B. M., & Land, K. C. (2013). Multilevel criminal opportunity. In F. T. Cullen & P. Wilcox (Eds.), *The* Oxford handbook of criminological theory (pp. 579–601). New York: Oxford University Press.
- Wilcox, P., Land, K. C., & Hunt, S. A. (2003). *Criminal circumstance: A dynamic multicontextual criminal opportunity theory*. New York: Aldine de Gruyter.
- Wilcox, P., Madensen, T. D., & Tillyer, M. S. (2007). Guardianship in context: Implications for burglary risk and prevention. *Criminology*, 45, 771–804.
- Wilcox Rountree, P., Land, K. C., & Miethe, T. D. (1994). Macromicro integration in the study of victimization: A hierarchical logistic model analysis across Seattle neighborhoods. *Criminology*, 32, 387–414.
- Wilcox, P., Tillyer, M. S., & Fisher, B. S. (2009). Gendered opportunity? School-based adolescent victimization. *Journal of Research in Crime and Delinquency*, 46, 245–269.
- Wilson, C., & Brewer, N. (1992). The incidence of criminal victimization of individuals with an intellectual disability. Australian Psychologist, 27, 114–117.
- Wooldredge, J., & Steiner, B. (2012). Race group differences in prison victimization experiences. *Journal of Criminal Justice*, 40, 358–369.
- Xie, M., & Planty, M. (2014). Violent victimization in new and established Hispanic areas, 2007–2010. U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Statistics.
- Zaykowski, H., & Gunter, W. (2012). Youth victimization: School climate or deviant lifestyles? *Journal of Interpersonal Violence*, 27, 431–452.
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