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Victimization and Violent Offending: An Assessment of the Victim-Offender Overlap Among Native American Adolescents and Young Adults

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Abstract

The purpose of this article is to evaluate the victim–offender overlap among a nationally representative sample of Native American adolescents and young adults. Data for this study were obtained from 338 Native American youth who participated in the National Longitudinal Study of Adolescent Health (Add Health) Waves I-IV. Group-based trajectory modeling was used to estimate trajectories of violence and victimization separately. Bivariate tests were used to assess the overlap between victimization and violent trajectory groups. Multinomial regression procedures were used to assess the predictors of victimization, offending, and the overlap category of both victimization and offending. Three trajectory groups were found for violence (nonviolent, escalators, and desistors) and victimization (nonvictim, decreasing victimization, and increasing victimization). We found substantial evidence of an overlap between victimization and offending among Native Americans, as 27.5% of the sample reported both victimization and offending. Those in the overlap group had greater number of risk factors present at baseline. These results suggest that the victim–offender overlap is present in Native American adolescents. Explanations and implications are discussed.

Keywords

criminal victimization; quantitative methods; race and crime/justice

Native Americans have consistently been identified as an at-risk group for multiple risk behaviors, including violent victimization and offending, dating violence, suicide, binge drinking, marijuana, and hard drug use (Buchwald et al., 2000; French & Hornbuckle, 1977-1978; Kunitz, 2008; Mullan Harris, Gordon-Larsen, Chantala, & Udry, 2006; Young, 1994). According to the Youth Risk Behavior Surveillance System (Youth Risk Behavior Surveillance System, 2010) survey of high school students nationwide, Native Americans are more likely than any other racial/ethnic group to report having threatened someone with a weapon, get into a physical fight, carry a weapon, and drive under the influence of alcohol (Centers for Disease Control and Prevention, 2010). Native Americans are also more likely than any other ethnic group to be victimized by rape, get injured in a fight, and report being bullied (Centers for Disease Control and Prevention, 2010). Despite being at risk, research conducted with Native American populations is relatively sparse.

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The small amount of research conducted using Native American populations suggests that this group is at especially high risk for violence and victimization (Ashcroft, Daniels, & Hart, 2003; Mullan Harris et al., 2006; Yuan, Koss, Polacca, & Goldman, 2006). A longitudinal study of victimization trends found that Native Americans had greater rates of victimization than any other racial/ethnic group over a period of ten years (Mullan Harris et al., 2006). Ashcroft, Daniels, and Hart (2003) found that Native Americans are more likely than any other racial or ethnic group to be sexually or physically assaulted and only slightly less likely to have witnessed violence and been physically abused compared to Blacks. This study, as well as several others, has also found that Native Americans are more likely to abuse marijuana, hard drugs, and participate in delinquent behavior than any other group (Ashcroft et al., 2003; Winfree, Griffiths, & Sellers, 1989).

In addition, only a handful of studies have evaluated the etiology of risk behaviors among Native Americans. One study evaluated the predictors of violence among urban American Indians at an after-school youth development program and identified a dose–response relationship between risk and protective factor exposure and violence (Bearinger et al., 2005). Specifically, school connectiveness, positive affect, and peer prosocial behavior protected participants from violent perpetration, while substance use and suicidal thoughts or behaviors increased risk (Bearinger et al., 2005). Despite the high risk of violence and victimization among this group, no studies have evaluated the prevalence or predictors of the victim–offender overlap among Native Americans. Therefore, in addition to evaluating the effect of school-, peer-, and individual-level risk and protective factors for victimization and violent offending, this study will explore the risk factors unique to Native Americans, as well as the prevalence of the overlap between violence and victimization.

More research has been conducted on the victim–offender overlap among minority youth in general (for a review, see Piquero, Jennings, & Reingle, 2012). For example, among Hispanics living in the United States, sensation-seeking behavior, delinquent peers, attending a school that has a more negative environment, and cultural stress predicted victimization, while sensation seeking, coercive discipline by a parent, peer delinquency, and negative school environment were related to violent offending (Maldonado-Molina, Jennings, Tobler, Piquero, & Canino, 2010). This study also reported that the overlap between violent behavior and victimization could not be explained by the shared individual-level, familial, peer, and contextual risk factors (Maldonado-Molina et al., 2010). Similarly, another study was conducted using data from both Puerto Ricans living in the Bronx, NY, and those living in San Juan, PR. In this study, Maldonado-Molina, Piquero, Jennings, Bird, and Canino (2009) examined the trajectories of delinquency across the two contexts. This study found both differences and similarities between the samples; however, the finding that exposure to violence predicts membership in all delinquent trajectory groups (compared to nondelinquent) remained across both samples. The magnitude of the effect was slightly larger among youth in San Juan ($b = 0.38$) compared to those in the Bronx ($b = 0.19$); however, all associations between exposure to violence and delinquency trajectories were statistically significant. In a predominantly African American sample, Feigelman, Howard, Li, and Cross (2000) found that only 5% of homicide offenders were not exposed to or victims of violence. This study also found individual risks (alcohol and drug use, sexual behavior, risk-taking and thrill-seeking behaviors), self-esteem, academic performance, peer influences, gang membership, perceived safety in school, open communication at home, and parental monitoring to be correlated with perpetration of violence (Feigelman et al., 2000). These variables that have been identified as risk and protective factors for violence and victimization among other racial and ethnic minorities (and not Native Americans specifically) will be explored within a Native American population as a component of the current inquiry.

There are several theoretical perspectives that can be used to explain the victim–offender overlap, which may apply among Native Americans. First, routine activities theory (Fagan, Piper, & Cheng, 1987) suggests that crime arises from the convergence of people (motivated offender), place (suitable target), and time (absence of a capable guardian). Under this theoretical perspective, adolescents are more likely to become both victims and offenders if they spend time in high-risk neighborhoods and become presented with opportunities for crime. This perspective applies to Native Americans in that communities in which Native Americans are more likely to reside are often at-risk and run-down communities with a high incidence of criminal behavior. Therefore, the motivated offenders, suitable targets, and absence of capable guardians are frequently present in the communities in which Native Americans reside ((Ashcroft et al., 2003; Winfree et al., 1989).

Sampson and Lauritsen (1990) suggested that perpetration of criminal behavior increases the risk of victimization through association with others who also engage in crime (Sampson & Lauritsen, 1990). Because people are likely to engage in crime against people in their own social circle or in close geographic proximity, creating a circle of victimization and offending at both the peer and neighborhood level (Fagan et al., 1987; Wilson, 1987). This theoretical perspective applies to Native Americans in that these youth are more likely than any other racial/ethnic group to report a number of risk behaviors, including fighting and threatening someone with a weapon (Centers for Disease Control and Prevention, 2010). In communities that are predominantly Native American, this cycle of victimization and offending may begin after a threat of violence, or self-defense after a violent altercation.

Subcultural theories of violence also provide an explanation for violence among subgroups of the population. For example, Wolfgang and Ferracuti (1967) assert that violence is characteristic of certain cultural groups because no other alternative exists. Specifically, those of lower class do not have the resources to obtain their goals (e.g., respect, money, etc.) via nonviolent avenues (Wolfgang & Ferracuti, 1967). This theoretical perspective ties into the lack of socioeconomic resources available in predominantly Native American communities. If parents of young children demonstrate violence as a means of supporting the family, children may learn that no reasonable alternative to supporting one’s family (other than violence) exists. Therefore, Native Americans, who often live in multigenerational homes and are less mobile than other populations, may see no viable alternative to violence in supporting themselves and their families.

Finally, behavioral theories suggest that impulsivity, or low self-control, characterized by actions without prior thought to the ramifications of their behavior may increase violent behavior and victimization (Gorenstein & Newman, 1980). This notion of low self-control and impulsivity is the cornerstone of Moffitt’s (1993) life course persistent pattern of offending. To reflect the variability in violence (and victimization) over the life course in general populations (Moffitt, 1993), this study will utilize longitudinal data and a latent group-based modeling approach to assess changes in each behavior over time among Native Americans.

To add to the literature on the victim–offender overlap, and test for the presence of a victim–offender overlap in the at-risk population of Native Americans, this study estimates trajectories of violence and victimization longitudinally. Then, we test for overlap in the trajectory groups, and test for risk and protective factors for victimization, offending, and the combination of the two. Specifically, we hypothesize that (1) there will be between three and six trajectory groups of violence and victimization in this sample of Native Americans; (2) there will be substantial overlap between victimization and offending behavior; and (3) there will be a greater number of risk and protective factors that emerge among those who are both victims and offenders than those who engage in any other behavior.

Method

Data for this study was derived from the contractual National Longitudinal Study of Adolescent Health (Add Health) data set. This data is a school-based panel study conducted from 1994 (Wave I) through 2008 (Wave IV), when participant ages ranged from 11 to 32 (Chantala & Tabor, 1999). The data collection for this survey was designed to explore effects of multiple domains on adolescents' health behaviors. The sample used in this study includes 338 self-identified Native Americans who were a part of the restricted-use cohort sample and did not have missing sampling weights at Wave IV (Chantala & Tabor, 1999). This cohort was 52.1% male, with an average age of 14.86 (*SE* = 0.17) at Wave I. Nearly 50% of the sample reported either violent offending or victimization (47.6%). The prevalence of the independent and dependent variables are detailed in Table 1.

Measures

Violence—Violence was measured using three items that were measured across each of the four waves of data collection: In the past 12 months, have you (1) hurt someone badly enough that he or she needed care from a doctor or nurse? (2) pulled a knife or gun on someone? and (3) shot or stabbed someone? At each wave, a value from 0 to 12 (excluding values of 1 and 3) was assigned to each participant. A 0 was assigned for each item if the participant did not report each behavior. A 2 was assigned if the adolescent reported hurting someone badly enough to need care from a doctor or nurse one to three times in the past year. A 4 was assigned for each of the following occurrences: (1) shooting or stabbing someone; (2) pulling a knife or gun on someone; or (3) hurting someone badly enough to need care from a doctor or nurse four or more times in the past year. Mean violence at Wave II was 0.96 (*SE* = 0.21), 0.29 (*SE* = 0.09) at Wave III, and 1.01 (*SE* = 0.19) at Wave IV. These values for each of these three variables (each ranging from 0 to 4) were summed within waves to create trajectories of violence across Waves II-IV.

Violent victimization—Victimization was measured using three items that were measured across each of the four waves of data collection: In the past 12 months, (1) have you been hurt badly enough (in a fight) that you needed care from a doctor or nurse? (2) has someone pulled a knife or gun on you? and (3) has someone shot or stabbed you? At each wave, a 0–12 (excluding 1 and 3) was assigned for each participant. A 0 was assigned for each item if the participant did not report being victimized by the particular behavior. A 2 was assigned if the adolescent reported being hurt badly enough to need care from a doctor or nurse between one and three times in the past year. A 4 was assigned for each of the following occurrences: (1) reported being shot or stabbed; (2) reported a knife or gun being pulled on them in a fight; or (3) having been hurt badly enough to need care from a doctor or nurse four or more times in the past year. At Wave IV only, having reported being "beaten up" someone was substituted for "having been hurt badly enough in a fight to need care from a doctor or nurse." These items were significantly correlated when measured together ($r = .29$). Mean victimization was 1.39 (*SE* = 0.21) at Wave II, 0.63 (*SE* = 0.14) at Wave III, and 1.32 (*SE* = 0.23) at Wave IV. These values were summed within waves to create trajectories of victimization across Waves II-IV.

Victim–offender overlap—Based upon the assigned trajectories of violence and victimization, adolescents were grouped into the following typologies: (1) Nonviolent/Nonvictim (e.g., participant was not a member of a violent trajectory group of a victim trajectory group); (2) victim only (e.g., participant was identified as a victim in trajectory modeling but was not identified as an offender); (3) offender only (e.g., participant was identified as an offender but not a victim in trajectory modeling); and (4) victim and offender (e.g., participant was a member of both violent and victim trajectory groups).

Risk Factors for Violence, Victimization, and Overlap

Each of these risk and protective factors were measured at Wave I.

Group fighting—Group fighting was measured using the variable, "In the past 12 months, how often did you take place in a physical fight where a group of your friends was against another group?" Responses to this item include 0 = *Never*, 1 = *One or two times*, 2 = *Three to four times*, and 3 = *5 or more times*. These responses were dichotomized into 0 = *never* group fighting and 1 = *group fighting* in the past year. This variable was included as a proxy measure of gang-related activity, which has been shown to be a risk factor for both future violence and victimization among Whites, Blacks, and Hispanics (Feigelman et al., 2000).

Parental involvement—Parental influence and involvement was measured using a scale of 20 items (10 for maternal involvement and 10 measuring paternal involvement; Prado et al., 2009). Each individual item was dichotomized, and the scale is the sum of all 20 items (range: 0–20). The 10 items that comprised the scale included whether or not the respondent reported participating in the following activities with their mother and/or father in the past 4 weeks: (1) going shopping; (2) playing a sport; (3) attending a religious or church-related event; (4) talking about someone they are dating or a party they attended; (5) attending a movie, play, concert, or sporting event; (6) talked about a personal problem they were having; (7) had a serious argument about their behavior; (8) talked about work or grades; (9) worked on a project for school; and (10) talked about other things they are doing in school. Cronbach's coefficient α for this scale was .74. This scale was included as a covariate because evidence suggests that parenting variables (e.g., monitoring, involvement) are related to violence (Park, Morash, & Stevens, 2010).

Parental alcohol use—At the Wave I survey, parents of surveyed adolescents were asked, "How often do you drink alcohol?" Response options included, *Never*, *Once a month or less*, *Two or three days a month*, *Once or twice a week*, *Three to five days a week*, and *Nearly every day*. Responses were dichotomized into "parents use alcohol" and "parents do not use alcohol" based upon the distribution of the responses. Similar to parental involvement, evidence suggests that parental substance use has implications for risk behavior, including violence (Park et al., 2010).

Peer alcohol use—Peer alcohol use was measured using one item: "Of your three best friends, how many drink alcohol at least once a month?" Respondents who reported having one or more friends who use alcohol monthly were coded as "1". These items were included because literature suggests that individuals who have peers who use alcohol (Herrenkohl et al., 2007; Kuntsche, Gossrau-Breen, & Gmel, 2009; Leech, Day, Richardson, & Goldschmidt, 2003) are more likely to engage in violent behavior.

Peer marijuana use—Respondents were asked, "Of your three best friends, how many use marijuana at least once a month?" Respondents who reported having one or more friends who use marijuana monthly were coded as "1". These items were included because literature suggests that individuals who have peers who use marijuana (Herrenkohl et al., 2007; Leech et al., 2003) are more likely to engage in violent behavior.

Depression—This mental health status variable was measured with one item, "How often in the past week have you felt sad or depressed?". Values for this variable were dichotomized so that 1 = *One or more times* and 0 = *0 instances of depression* in the past week. Depression was included as a covariate because higher levels of depression have been associated with violence (Elbogen & Johnson, 2009; Senn, Carey, & Vanable, 2010;

Thurnherr, Berchtold, Michaud, Akre, & Suris, 2008) and other risk behaviors (Latzman & Swisher, 2005; Senn et al., 2010).

Alcohol use—Lifetime alcohol use was evaluated using the item, "Have you had a drink of beer, wine, or liquor—not just a sip or a taste of someone else's drink—more than 2 or 3 times in your life?" Those who responded affirmatively to this item were categorized as alcohol users. Alcohol use was included as a covariate because it has been related to violent behavior (Maldonado-Molina, Reingle, & Jennings, 2010).

Marijuana and other drug use—Marijuana use was measured using the item, "During your life, how many times have you used marijuana?" Responses were categorized into users and nonusers. Other drug use was created using the self-reported number of times the respondent used cocaine, inhalants, or other drugs in their lifetime. If any of these drugs were used, respondents were categorized as users. These items were included because evidence suggests that the use of marijuana and other drugs (Boles & Miotto, 2003; Dhungana, 2009; Herrenkohl et al., 2007) increases the risk of violent behavior.

Desire to leave home—This variable was measured using the following item: "How much do you feel that you want to leave home?". Respondents who reported *very much* or *quite a bit* were categorized as 1, others were categorized as 0. This variable was included because some evidence suggests that a negative home environment increases the likelihood of violent delinquency (Ou & Reynolds, 2010).

Baseline violence and victimization—To account for the effect of previous violence and victimization on violent and victimization trajectory groups, measures of baseline violent behavior and victimization were included as covariates. The baseline violence measure included a dichotomized measure derived from the following three measures of violence: In the past 12 months, have you (1) hurt someone badly enough that he or she needed care from a doctor or nurse? (2) pulled a knife or gun on someone? and (3) shot or stabbed someone? If a respondent identified at least one event for one of these measures, they would be considered violent at baseline. Similarly, the victimization measure was a dummy variable that used the following three variables at baseline: In the past 12 months, (1) have you been hurt badly enough (in a fight) that you needed care from a doctor or nurse; (2) has someone pulled a knife or gun on you; and (3) has someone shot or stabbed you? If the respondent reported at least one event of victimization for one or more of these measures, they were considered victims at baseline.

Age and gender—Age was recorded using the self-identified date and year of birth (calculated from the middle of the month for anonymity purposes) provided by the respondent. Gender was recorded as self-reported gender identity according to the respondent.

Analytical Methods

Group-Based Trajectory Modeling

To examine the number and shape of violent and victimization behavior profiles among Native Americans at Waves I-III, trajectory groups were fitted to the data using group-based trajectory modeling (Nagin, 2005; Nagin & Land, 1993). This method of analysis grouped individuals together based upon common attributes (e.g., levels of violence over time). This approach is appropriate because violence varies over time (Farrington, 1986), and individuals with different levels of violence may be substantially different from each other.

Group-based trajectory models are finite mixture models, which use single- and multiple-group model structures (Nagin, 2005). Finite mixture models (also known as latent class models) represent the heterogeneity in a finite number on unmeasured (latent) classes. The trajectory groups that are created using these analyses are derived from maximum likelihood estimation. In this case, both violence and victimization data follow a Poisson distribution with a large number of nonviolent and nonvictim events. Therefore, a zero-inflated Poisson (ZIP) distribution was specified in the model (Jones, Nagin, & Roeder, 2001).

Models were tested until the most parsimonious number of trajectory groups maximizes the Bayesian Information Criterion (BIC). The BIC refers to BIC = $\log(L) - 0.5k\log(N)$, where log likelihood at the maximum likelihood estimate is subtracted from half the number of parameters multiplied by the log of the sample size. Quadratic, cubic, and linear models were tested to correctly depict the slopes represented in the data. SAS PROC TRAJ was used to estimate the trajectories (Jones et al., 2001; SAS Institute, 2004).

Individuals were classified into mutually exclusive trajectory groups using the “maximum probability” procedure (Nagin, 2005; Nagin & Tremblay, 2001). In other words, participants were assigned to groups in which they have the greatest probability of membership (e.g., greater than .70). The modeling strategy estimated posterior probabilities of assignment to each group, and individuals were assigned to the group with the highest probability. This does not guarantee that all individuals have a probability of 1 or membership in a latent group, but the mean assignment probability for each group is expected to be high (>.70; Nagin, 2005; Nagin & Tremblay, 2001). These high assignment probabilities increase confidence in the validity of latent groups.

To test for the magnitude of the victim–offender overlap, individuals were categorized according to their trajectory group membership. For example, adolescents who belonged to a violent group (such as the desistors) and the nonvictim trajectory group would be identified as offenders only. Those who were victims but not offenders would be categorized as victims only. Those who were included in both violent and victim trajectory groups were categorized as victims and offenders, and those who were in neither group were coded as nonvictims, nonoffenders.

Multinomial Logistic Regression

Once trajectory groups have been specified, bivariate multinomial regression were used to estimate odds ratios for risk and protective factors on membership in each overlap category. All multinomial models were adapted to account for the multilevel nature of the data, and clustered robust standard errors were estimated to produce accurate error calculations. STATA 11 software (College Station, TX) was used to conduct all multinomial regression analyses.

Results

Trajectories of Violence and Victimization

Three distinct classes of violent offenders were identified: nonviolent (66.9%), desistors (19.2%), and escalators (13.9%). This three-group trajectory model showed the lowest Akaike Information Criterion (AIC) and BIC (AIC = −891, BIC = −906) when compared to a 4- (AIC = −894, BIC = −915), and 2- (AIC = −1,138, BIC = −1,148) class model. A quadratic slope was specified for the third group (escalators) only (AIC = −853, BIC = −868). Three classes of victims were also identified: nonvictims (58.0%), those with decreasing rates of victimization over time (24.0%) and those with increasing victimization over time (14.0%). This three-group trajectory model also showed the lowest AIC and BIC (AIC = −1,154, BIC = −1,170) compared to the 2- (AIC = −1,557, BIC = −1,566) and 4-

class model (AIC = −1,157, BIC = −1,178). The mean posterior probabilities ranged from to .90 to .99 for both sets of models. Figure 1 displays the trajectories of violence and victimization.

Prevalence of Victim–Offender Overlap

A cross-tabulation of the three trajectory groups of victimization by the three groups of violent offending shows evidence of an overlap between victimization and offending behavior. As detailed in Table 2, the largest group was those not involved in violence or victimization (52.4%), followed by those escalating in violence and increasing in their victimization over time (12.4%). The third most prevalent group was those who in the desistors violence profile and decreasing in violence over time (11.5%), and those who were nonoffenders and were decreasing in their victimization over time (11.5%). A very small portion of those who were violent did not report victimization (5.6%). A larger number of nonoffenders were victimized (14.5%); however, the vast majority of those who were engaged in one behavior were also involved in the other ($\chi^2 = 48.61$, $p < .001$).

Effects of Risk and Protective Factors at Baseline on Victim–Offender Status

Table 3 shows the bivariate relationship between each risk or protective factor and victim/offender status. Among victims only, individual-level alcohol use OR = 8.02; 95% CI [2.86, 22.51], marijuana use, OR = 3.29; 95% CI [1.24, 8.73], and desire to leave home, OR = 2.15; 95% CI [1.18, 3.93], significantly predicted membership in this group compared to the group of nonvictims/nonoffenders. Alcohol use, OR = 7.05; 95% CI [1.26, 39.52], other illegal drug use, OR = 4.73; 95% CI 1.20, 18.72, and baseline violent offending, OR = 15.15; 95% CI [1.33, 172.67] predicted membership in the offender only group compared to the nonvictims/nonoffenders. Males were also more likely to be offenders only than nonvictims and nonoffenders, OR = 11.29; 95% CI [3.11, 40.95].

The group of both victims and offenders had the largest number of risk factors compared to nonvictims and nonoffenders. These adolescents had higher rates of alcohol use, OR = 3.47; 95% CI [1.78, 6.80], marijuana use, OR = 3.02; 95% CI [1.33, 6.82], greater desire to leave home, OR = 1.89; 95% CI [1.17, 3.07], depression, OR = 1.89; 95% CI [1.03, 3.46], group fighting, OR = 2.15; 95% CI [1.21, 3.83], baseline violent offending, OR = 8.67; 95% CI [1.83, 40.90], and baseline victimization, OR = 3.28; 95% CI [1.50, 7.20], than nonvictims and nonoffenders. Higher levels of parental involvement were protective from membership in this group, OR = 0.90; 95% CI [0.82, 0.99]. Males were also more likely to be both victims and offenders than nonvictims and nonoffenders, OR = 3.43; 95% CI [1.58, 7.43].

Discussion

The present study examined the number and shape of trajectories of violent offending and victimization, as well as the overlap between the two behaviors. After groups of nonvictims/nonoffenders, offenders only, victims only, and victims and offenders were identified, the direct effects of multiple domains of risk and protective factors for membership in each category were identified. For violent offending, we identified three groups among Native American youth: a nonviolent group, a group who desisted violence, and a group of escalators whose severity of violence increased over time. For victimization, three groups also emerged: a nonvictim group, those with decreasing victimization over time, and those with increasing victimization over time. The overlap between those in violent and victim trajectory groups was substantial, as 27.5% of the sample was identified as both victims and offenders. In fact, the most at-risk trajectory group of violent behavior (escalators) accounted for the largest proportion of victims (13%). Among escalators, less than 1% were not victims of violence themselves.

These results are consistent with previous research on the victim–offender overlap in the general population (Piquero, Jennings, & Reingle, 2012). The findings of this study found that one fourth of the population of Native Americans were both victims and perpetrators of violence. Although this study is the first to find evidence of this relationship among Native Americans, it is not the first to find substantial evidence of the victim–offender overlap (Fagan et al., 1987; Gottfredson, 1984; Jennings, Higgins, Tewksbury, Gover, & Piquero, 2010; Jennings, Tomisich, Gover, & Akers, 2011; Jensen & Brownfield, 1986; Maldonado-Molina et al., 2010; Maldonado-Molina, Piquero, Jennings, Bird, & Canino, 2009; Reingle, Jennings, Maldonado-Molina, Piquero, & Canino, 2011; Wolfgang, 1958).

The rationale for the presence of the victim–offender overlap remains a subject for debate, and the results from this study provide insight as to the reasons this overlap exists. Literature suggests that both victims and offenders share similar risk factors, a “deviant lifestyle,” that increases their risk for both victimization and perpetration of violence (Gottfredson, 1984; Jensen & Brownfield, 1986; Sampson & Laub, 1990). These results also provide some support for the subcultural theory of violence, assuming that Native American youth reside in predominantly Native American communities. Although this neighborhood segregation and dispersion was not measured directly, peer- and parenting-level variables trended toward significance (with parental involvement as a significant protective factor) as risk factors for violence and overlap. Although limited sample size did not permit further investigation of these contextual influences, some support for the notion that parents model positive, antiviolence behaviors exists from this study. Although parental involvement has been identified as a protective factor among other minority groups (Feigelman et al., 2000), the mechanism by which this influence protects from violence and victimization in Native Americans has yet to be studied.

Across all groups of Native American youth who were either victimized or participated in violence, alcohol use was associated with this risk. Bivariate analyses of risk and protective factors for group membership showed that the victim–offender overlap group had the greatest number of risk factors. In this group, alcohol use, marijuana use, desire to leave home, group fighting, violence, and victimization at baseline predicted victimization and offending compared to nonvictims and nonoffenders. Victims only were more likely to use marijuana and have a desire to leave home than those who were nonvictims and nonoffenders. Illegal drug use predicted offending only, and baseline violence predicted offending longitudinally. Males were more likely than females to be offenders and victims and offenders compared to nonvictims and nonoffenders.

These risk factors were similar to the previous literature on victimization and offending among African Americans (Feigelman et al., 2000). Specifically, alcohol and marijuana use were identified as risk factors for violence among African-Americans, and these behaviors also appear to predict the victim–offender overlap among Native Americans. In addition, parental involvement was protective from victimization and offending in this study, as well as among African Americans (Feigelman et al., 2000). The results were less consistent with the literature on victimization and offending among Hispanics, which suggest that peer delinquency, sensation seeking, acculturation, and a negative school environment foster violence (Maldonado-Molina et al., 2009, 2010). This suggests that Native Americans have unique factors that increase their risk for violence, and similar to African Americans, these factors may lie within the family unit.

Results from this study also suggest that previous victimization and violent behavior both predict the victim–offender overlap among Native Americans. Previous literature supports the relationship between prior victimization and future victimization (Maldonado-Molina et al., 2010), however, victimization at baseline was not associated with membership in the

victimization only group longitudinally. This suggest that those were who victims at baseline do not tolerate this victimization; rather, they begin to reactively engage in violent behavior (Van Dijk & Steinmetz, 1983). These baseline victims are then at risk for membership in the high-risk, overlapping violent-victim group of adolescents. Therefore, these results were not largely different from the literature on the victim–offender overlap within the general population (Piquero, Jennings, & Reingle, 2012).

The number of early risk factors for the victim–offender overlap group that are present at baseline highlights the need for early violence prevention programming. Specifically, if young Native Americans are being bullied or victimized, they are more likely to engage in serious forms of violence as they age. These findings highlight the early risk factors, including alcohol use, marijuana use, and violent behavior, which are present prior to age 15 and may serve as targets for large-scale violence prevention programming in communities that are predominantly Native American.

These findings have a number of implications for theory. First, the results tend to support the theory of routine activities, in that the presence of a capable guardian (e.g., parental involvement) is protective from victimization and violence among Native Americans. Second, the results lend support for subcultural theory, which suggests that violence occurs because there is no reasonable alternative action. Specifically, these results suggest that violence and victimization strongly predict each other. This suggests a perpetual cycle of exposure to violence and perpetration of violence, leaving no alternative to defend oneself and one's resources (Reingle et al., 2011). Finally, alcohol and other drug use has been associated with impulsivity and low self-control (Sussman, McCuller, & Dent, 2003) providing support for Hirschi and Gottfredson's (1993) control theory. Taken together, these theoretical perspectives suggest that Native Americans may be at increased risk for victimization and offending due to a lack of alternative options to settle disputes, low parental monitoring of youth, and impulsivity that may result from substance use.

This study had several limitations. First, latent-group-based trajectory modeling provides an estimation of the type and number of groups in the data, and this process is exploratory in nature. Despite the exploratory nature of trajectory estimation, results of this study were consistent with the number and shape of trajectory groups from other studies (Piquero, 2008; Zara & Farrington, 2009). Second, there was some lack of continuity in the measurement of victimization over time in the Add Health data set. Specifically, the item measuring frequency and severity fighting was reworded at Wave IV to measure adolescents' being beat up. These items were significantly correlated at Wave II, and appear to measure the same underlying construct of victimization in a severe physical fight. Third, due to small sample sizes, multivariate analyses could not be conducted to investigate risk and protective factors for membership in the victim–offender overlap group. Finally, the measurement of depression and substance use was limited to a small number of dichotomized variables that were included in the Add Health data set. Although this may preclude definitive conclusions regarding substance use and depression, the significance of these variables indicates an area for future inquiry.

Despite these weaknesses, the current study had a number of strengths. First, data were derived from a longitudinal, nationally representative sample of adolescents followed into young adulthood. This sampling design allows generalization to a national sample of Native American youth across the United States. Second, this study estimated the frequency and severity of violence and victimization among a high-risk group. More importantly, we evaluated the overlap between the two behaviors and predictors of each specific behavioral profile. Finally, the use of trajectory modeling method in this study is especially appropriate

for studies of violence and victimization, as patterns tend to change over time (Farrington, 1986; Piquero, 2008).

In conclusion, the findings from this study indicate substantial overlap between victimization of violence and violent behavior among Native American adolescents and young adults. Victimization early in life predicts both victimization and perpetration of violence, rather than victimization only. These findings suggest that early victimization results in both initiation of violence and continuation of victimization throughout adolescence and into young adulthood. These findings also indicate that violence and victimization both begin before age 15 in Native American populations, suggesting that the current prevention programming occurs too late. Prevention programming should begin early in elementary school settings to prevent initiation of bullying, other victimization, and violent behavior.

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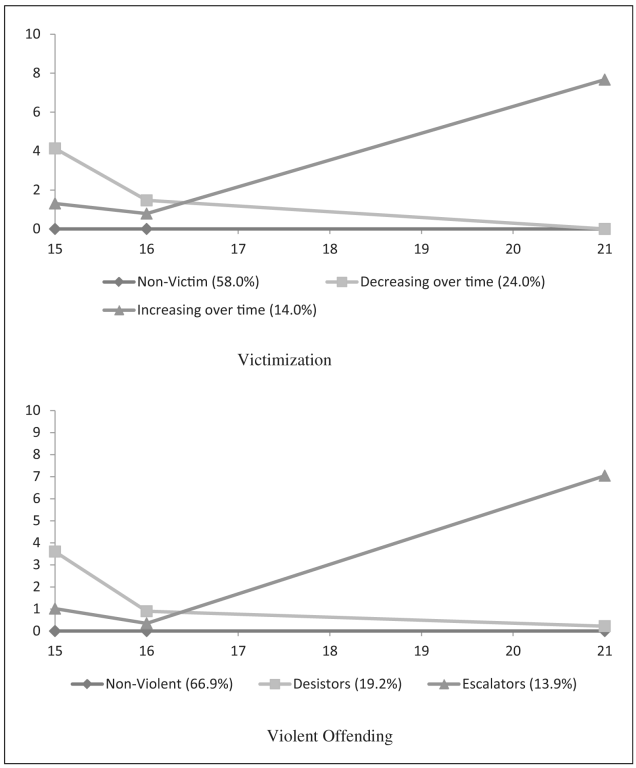

Figure 1.
Trajectories of victimization and violent offending among Native Americans, age 15–21, Add Health.

Table 1

Description of Variables, Add Health, Wave I

	%
Overlap	
Nonviolent	177 (52.4%)
Victim only	49 (14.5%)
Offender only	19 (5.6%)
Victim and offender	93 (27.5%)
Parental and peer influences	
Parental involvement[a]	5.6 (0.22)
Parental alcohol use	145 (47.2%)
One or more peers use alcohol	210 (63.6%)
One or more peers use marijuana	158 (44.1%)
Individual-level risk factors	
Ever used alcohol	198 (60.4%)
Lifetime marijuana use	123 (34.5%)
Lifetime use of other drugs	56 (17.4%)
Past week depression[b]	150 (41.8%)
Desire to leave home	112 (35.3%)
Violence	
Group fighting in past year	104 (35.4%)
Baseline violence	30 (14.6%)
Baseline victimization	112 (35.3%)
Demographics	
Gender (male)	146 (52.1%)
Age at baseline[a]	14.86 (0.17)

Note. $n = 338$.

[a] *Mean* (*SE*) are reported.

[b] Depression was measured as feeling sad or depressed one or more times in the past month.

Table 2

Evaluation of the Victim–Offender Overlap in Trajectories of Violent Offending and Victimization, Native Americans

	Offending			
Victimization	**Nonoffender**	**Desistor**	**Escalator**	**Total**
Nonvictim	177 (52.4%)	17 (5.0%)	2 (0.6%)	196
Decreasing over time	39 (11.5%)	39 (11.5%)	3 (0.9%)	81
Increasing over time	10 (3.0%)	9 (2.7%)	42 (12.4%)	61
Total	226	65	47	338

Note. . $N = 338$. Design-based $\chi^2 = 48.61$, $p < .001$.

Table 3

Bivariate Effects Between Risk/Protective Factors and Categories of Victimization and Offending, Native Americans

	Trajectory group					
	Victim only		Offender only		Victim and offender	
	OR	95% CI	OR	95% CI	OR	95% CI
Parental and peer influences						
Parental involvement	0.86	[0.73, 1.02]	0.96	[0.83, 1.12]	0.90 *	[0.82, 0.99]
Parental alcohol use	0.49	[0.18, 1.31]	0.90	[0.23, 3.51]	0.51	[0.25, 1.04]
Peer alcohol use	2.40	[0.79, 7.32]	1.89	[0.50, 7.21]	2.19	[0.92, 5.22]
Peer marijuana use	0.73	[0.26, 2.10]	1.45	[0.37, 5.66]	2.29	[0.96, 5.44]
Individual-level risk factors						
Alcohol use	8.02 ***	[2.86, 22.51]	7.05 *	[1.26, 39.52]	3.47 ***	[1.78, 6.80]
Marijuana use	3.29 *	[1.24, 8.73]	3.07	[0.79, 11.85]	3.02 **	[1.33, 6.82]
Other drug use	2.08	[0.71, 6.17]	4.73 *	[1.20, 18.72]	2.22	[0.88, 5.64
Desire to leave home	2.15 *	[1.18, 3.93]	2.24 †	[0.92, 5.49]	1.89 *	[1.17, 3.07]
Depression	1.27	[0.55, 2.89]	2.48	[0.81, 7.59]	1.89 *	[1.03, 3.46]
Violence						
Group fighting	1.89	[0.93, 3.85]	1.31	[0.64, 2.69]	2.15 **	[1.21, 3.83]
Baseline violent offending	4.37	[0.55, 34.55]	15.15 *	[1.33, 172.67]	8.67 **	[1.83, 40.90]
Baseline victimization	2.87	[0.84, 9.84]	1.57	[0.26, 9.61]	3.28 **	[1.50, 7.20]
Demographics						
Age at baseline	1.01	[0.71, 1.43]	8.67	[0.66, 1.13]	0.89	[0.72, 1.09]
Gender (male)	1.92	[0.67, 5.50]	11.29 ***	[3.11, 40.95]	3.43 **	[1.58, 7.43]

Note., $n = 338$. The "nonVictim, nonoffender" group serves as the reference category.

† $p < .10$.

* $p < .05$.

** $p < .01$.

*** $p < .001$.