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Propensity for Violence among Homeless and Runaway Adolescents: An Event History Analysis*

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Abstract

Little is known about the prevalence of violent behaviors among homeless and runaway adolescents or the specific behavioral factors that influence violent behaviors across time. In this longitudinal study of 300 homeless and runaway adolescents aged 16–19 years at baseline, we use event history analysis to assess the factors associated with acts of violence over three years, controlling for individual propensities and time-varying behaviors. The results indicate that females, non-minorities, and non-heterosexuals were less likely to engage in violence across time. Those who met criteria for substance abuse disorders (i.e. alcohol abuse, alcohol dependence, drug abuse) were more likely to engage in violence. A history of caretaker abuse was associated with violent behaviors, as were street survival strategies such as selling drugs, participating in gang activity, and associating with deviant peers. Simply having spent time directly on the streets at any specific time point also increased the likelihood for violence.

Keywords

adolescent violence; homelessness; adolescent victimization; runaway adolescents

Introduction

Much of the scholarly research on homelessness and violence focuses on victimization of the homeless. Yet, media reporting and city policies pertaining to the homeless often focus on the homeless as perpetrators of violence, rather than victims. Homeless adolescents are at special risk for both victimization and perpetration. While on the street, they are temporally located in criminal situations where they are exposed to predators and they also engage in survival strategies that put them in harms way (Baron, 2006; Baron & Hartnagel, 1997; Biehal & Wade, 1999; Hagen & McCarthy, 1997; McCarthy & Hagen, 1991; Ringwalt, Greene, & Robertson, 1998; Whitbeck, Hoyt, Yoder, Cauce, & Paradise, 2001). A major

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task of adapting to street life is gaining protection. Furthermore, many adolescents engage in survival strategies to secure basic necessities (Hagan & McCarthy, 1997). Even runaway adolescents without a propensity for criminality may affiliate with deviant peers on the street. This association with criminal behavior can create its own momentum and may lead to serious criminal behaviors such as drug dealing and survival sex (i.e. trading sex for money, food, drugs or a place to stay) which ultimately increases exposure to violence.

In this study we use event history analysis to assess factors associated with homeless adolescents' first act of violence during the course of our three-year study, controlling for individual propensities and time-varying behaviors. Because violent behavior is so strongly associated with personal victimization (Lauritsen, Sampson, & Laub, 1991; Sampson & Lauritsen, 1990; Tyler & Johnson, 2004), understanding what factors contribute to violence on the streets is important for the well-being of runaway and homeless adolescents as well as their potential victims. This research is unique in that it measures violence across 13 waves of data over a three year period of time. We were unable to locate any similar published studies that focused on violent behaviors of homeless youth over time.

Literature Review

Membership in street economies and street culture creates "a constant state of crisis" (Thompson, McManus, & Voss, 2006, p. 209). Homeless youth must expend substantial energy to secure basic necessities such as food and shelter (Hagan & McCarthy, 1997) and maintain personal safety (Baron & Hartnagel, 1998; Gaetz, 2004). Exposure on the street increases the likelihood that homeless youth will engage in the street economy(Auerswald & Eyre, 2002; Hagan & McCarthy, 1997). This may mean resorting to stealing, robbery, selling drugs, dumpster diving, panhandling, and trading sex to survive (Baron & Harnagel, 1998; Hagen & McCarthy, 1997; Whitbeck & Hoyt, 1999). In the process of daily survival, homeless adolescents must learn to protect themselves by carrying a weapon or by connecting with peers who can look after them (Greenblatt & Robertson, 1993; Yoder, Whitbeck, & Hoyt, 2003).

On the street, there is continual exposure to potentially violent people and situations (Cauce, Paradise, Ginzler, Embry, Morgan, Lohr, & Theofelis, 2000; Gaetz, 2004; Whitbeck & Hoyt, 1999). For example, Kipke and colleagues (1997) estimated that one-fifth of all homeless adolescents had seen someone killed, half had been physically threatened, and almost one-fifth reported they had been stabbed. The adolescents in their study lived in constant fear of violence. More than one-half feared being shot or stabbed and nearly one-half feared sexual and physical assault (Kipke, Simon, Montgomery, Unger, & Iverson, 1997). This constant exposure to violence may desensitize homeless adolescents towards its use in survival strategies. Furthermore, continuous vigilance and stress may increase reactivity to conflict or potential danger, enhancing the likelihood of responding violently to a perceived threat.

While on the streets young people are constantly exposed to and engage in substance abuse (Hagen & McCarthy, 1997; Johnson, Whitbeck & Hoyt, 2005) which places them at increased risk for violent victimization (Chen, Thrane, Whitbeck, Johnson & Hoyt, 2007), and for violent behaviors (Chen, Thane, Whitbeck, & Johnson, 2006). In a study of non-runaway adolescents, 94% of violent teenagers reported using alcohol, 85% reported marijuana use, and 55% had used hard drugs (Elliot, Huizinga, & Menard, 1989). Violence associated with substance use may be a consequence of lowered inhibitions in confrontations or threatening situations, but also a result of the social context of buying and selling drugs or associating with those who do (Parker & Auerhahn, 1998). It is important to note that although many of these relationships are exacerbated by street exposure, the

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relationship between caretaker abuse, victimization, prior delinquent activities, substance use and violence are not unique to street kids. Similar patterns have been found among housed adolescents.

Theory

There is considerable evidence that coercive/aggressive behaviors are learned and reinforced over time (Patterson, Dishion, & Bank, 1984; Caspi, Elder, & Bem, 1987). Coercive families provide negative interactions early on which subsequently influence interaction patterns with peers and others outside the family. These interaction patterns are carried into novel situations and coercive/aggressive adolescents gravitate towards situations that call for or tolerate them (Patterson et al., 1984; Caspi et al., 1987). Caspi and colleagues have delineated the specific mechanisms underlying the continuity and accentuation of behaviors and perceptions across time (Caspi & Bem, 1990; Caspi, Bem, & Elder, 1989). "Interactional continuity" occurs when interaction styles are reciprocated or otherwise reinforced through self-confirming expectations (e.g., hostility elicits hostile reactions from others).

In families coercive/aggressive interaction styles often escalate to violent confrontations (Patterson et al., 1984). This propensity for violence may well translate into street behaviors among coercive/aggressive adolescents. Those who have learned coercive/aggressive interaction styles may be more at risk for violent confrontations within the context of survival strategies and in reaction to perceived threats. Over time such interaction styles may emerge as a primary strategy for gaining what the adolescents want and maintaining self-protection. According to Caspi and colleagues, "cumulative continuity" is the result of the process where "… an individual's behavior patterns-adaptive or maladaptive-are sustained across the life course by the progressive accumulation of their own consequences …" (Caspi et al., 1989, p. 277). For example, violent behaviors that result from survival strategies such as protecting one's self as a drug dealer may become necessary to maintain the survival strategy (e.g., intimidating others to avoid attacks). Involvement in the criminal justice system may serve to exacerbate and confirm their coercive/aggressive interpretation of others' behaviors and the way the world works: the most coercive/aggressive people have the most power.

Hypotheses

Our hypotheses pertain to understanding the individual and behavioral factors which increase the propensity for violent behaviors by homeless adolescents. Prior research shows that demographic characteristics, such as gender and age are important to understanding violence. We control for four basic demographic variables: gender, age, sexuality, and race. In addition, we included a control variable indicating if respondents left home specifically due to violence in the home.

Length of time spent on the street has been shown to be associated with frequency of violence and criminal offending among homeless and runaway youth (Whitbeck & Hoyt, 1999). Prior abuse and victimization has also been linked to increased levels of violence (Kipke, Simon, Montgomery, Unger, & Iverson, 1997; Whitbeck et al., 2001), as has substance use (Kilpatrick, Acierno, Resnick, Saunders, & Best, 1997). Furthermore, associating with deviant peers increases ones likelihood of engaging in violent and criminal acts (Rice, Milburn, Rotheram-Borus, Mallett, & Rosenthal, 2005; Kipke, Unger, O'Conner, Palmer, & LaFrance, 1997; Whitbeck & Hoyt, 1999).

We delineate our hypotheses by those that focus on historical propensities (time-invariant) and those focusing on concurrent propensities (time-variant).

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Methodology

This study is based on data from the Midwest Longitudinal Study of Homeless Adolescents (MLSHA), a 13-wave (3-year) study of homeless adolescent youth in four Midwestern states. This research was funded by the National Institute of Mental Health (R01MH57110) from January 1999 – December 2003. To be eligible to participate, the young person had to be between the ages of 16 and 19 years and homeless at the time of the baseline interviews. Our definition of "homeless" was that the adolescent had to reside in a shelter, on the street, or living independently (e.g., friends, transitional living) because they had run away, been pushed out, or drifted out of their family of origin. Based on interviewer reports, approximately 90% of the 505 homeless and runaway adolescents who were approached for an initial interview and who met study criteria agreed to participate in the study. Of the 455 respondents who completed the first baseline interview, 94.3% or 428 (187 males and 241 females) completed the second baseline diagnostic interview. Twenty-six of the 455 original respondents did not complete the diagnostic interview. Those who did not complete the interview had a significantly higher age at first run away (14.84 years vs. 13.41 years). They were more likely to report that they were heterosexual (100% vs. 85% of completers) and less likely to report having been physically victimized when on their own than were completers.

The respondents were interviewed by full time, specially trained interviewers directly on the streets and in shelters in eight Midwestern cities (St. Louis, Kansas City, Omaha, Lincoln, Des Moines, Cedar Rapids, Iowa City, and Wichita). The adolescents ranged in age from 16 to 19 years with an average age of 17.4 years (SD = 1.05). Fifty-nine percent were European American, 22% were non-Hispanic African American, 5% were Hispanic, with the remaining self-identified as American Indian, Asian or Pacific Islander, or biracial. Fifteen percent identified themselves as gay, lesbian, or bisexual. Sixty-two percent of the adolescents reported that the population of their city of origin was 100,000 or greater, 10% said they were from a suburb of a large city, eight percent were from a medium sized city (50,000 to 100,000), eight percent were from a small city (10,000 to 50,000), and 12% were from small towns or rural communities of 10,000 or less.

The adolescents were informed that this was a longitudinal study and the tracking protocols were explained. Informed consent was a two-stage process. First, the study was explained, and informed consent was obtained from the adolescent. They were assured that refusal to participate in the study, refusal of any question, or stopping the interview process would have no effect on current or future services provided by the outreach agency in which the interviewer was placed. Second, all adolescents were asked if we could contact their parents. If permission was granted, parents were contacted, and informed consent to talk to a minor less than 18 years was verbally obtained. The parents also were asked to participate in a computer assisted telephone interview. Results from the parent interviews are not discussed in this study. If the adolescent was sheltered, we followed shelter policies of parental permission for placement and guidelines concerning granting such permissions. These policies were always based on state laws. In the few cases where the adolescent was under 18 years, not sheltered, and refused permission to contact parents, the adolescents were treated as emancipated minors in accord with National Institute of Health guidelines (Department of Health and Human Services, 2001). The consent process and questionnaires were approved by the University of Nebraska-Lincoln Institutional Review Board (#2001-07-333 FB). A National Institute of Mental Health Certificate of Confidentiality was obtained to protect the respondent's statements regarding potentially illegal activities (e.g., drug use).

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The street interviewers underwent two weeks of intensive training regarding computer assisted personal interviewing (CAPI) procedures and administering the four University of Michigan Composite International Diagnostic Interview (UMCIDI) indices (major depressive episodes, post-traumatic stress disorder, alcohol use/abuse, and drug use/abuse) and one Diagnostic Interview Schedule for Children-Revised (DISC-R) (conduct disorder) index. They then returned to their shelters and administered several “practice” interviews with staff and respondents 20 years or older. After completing their practice interviews the interviewers returned to the university for a second week of training. All interviews were conducted on laptop computers and downloaded electronically to a special secure university server.

We designed a sampling strategy for the current study that incorporated sampling units of fixed and natural sites similar to the design Kipke used in her Los Angeles study of homeless youths (Kipke, O’Connor, Nelson, & Anderson, 2000) with a year long window of sampling to capture the time dimensions. The sampling design involved repeatedly checking location where homeless youths were likely to be found in each of the target cities. Locations included shelters and outreach programs serving homeless youths, drop-in centers, and various street locations where young homeless people were most likely to be located. Research has demonstrated that using sampling designs that involve multiple points of entry to homeless populations are most effective in generating a diverse sample (Burt, 1996; Koegel, Burnam, & Morton, 1996). The interviewers all had prior experience in their respective cities as youth outreach workers and brought considerable knowledge regarding optimal areas of the city for locating youths on their own. The sampling protocol included going to these locations in the cities at varying times of the day on both weekday and weekends over the course of 12 months.

Since episodes of homelessness are of varying duration, a one year time frame provided an increased probability of capturing youths who have short-term exposure to homelessness. The interviewers were instructed to continue recruiting until their caseload reached 60 adolescents whom they would then track and re-interview at three-month intervals. The baseline interview on which the following reports are based was in two parts. The first consisted of a social history and symptom scales. The respondent was then asked to meet for a second interview during which the diagnostic interviews were conducted. These two interviews made up the baseline assessment for the study and usually were completed within one or two days so that no significant time lapsed between the first part of the baseline interview and the second diagnostic interview. The respondents were paid $25 for each interview. In this analysis, the Kansas City data were deleted from the sample because the termination of the interviewer at that location resulted in loss of multiple waves of data after baseline data collection.

Sample

Our final sample consisted of 308 adolescents who had viable data from baseline contact and wave two of our study (3 month follow up). Eight cases were then deleted due to missing data. Imputation options were considered, but because the majority of our variables are dichotomous and measures of event occurrence, the authors felt there was not enough data to impute whether and when these behaviors would have occurred. Attrition analyses were conducted based on our 300 cases and non-respondents at Wave 2 (n=61). No significant differences existed between the mean scores on any of our person-specific characteristics. Furthermore, the levels of violence reported at Wave 1 were consistent between those who remained in the study across time and those who left. Background individual propensities were consistent across our sample and cases not included in the analyses were due to attrition from baseline to Wave 2.

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Measures

Dependent Variable

Violence was measured with a summation of five questions that asked if respondents had held someone up or attacked someone to steal, started a physical fight in which someone was or could have been hurt, tried to hurt someone badly or been physically cruel to them, threatened someone with a weapon, or hurt someone with a weapon like a bat, brick, broken bottle, knife, or gun. The alpha reliability for the violence scale at baseline was .72. Respondents must have answered one of the questions to be included in analyses. The resulting scale was dichotomized to assess if respondents had engaged in any violent activity at each wave (1=violent activity). A *censoring variable* was created to right censor cases once they reported their first act of violence.

Time Invariant Covariates

Four *sociodemographic variables* were included in analyses: gender (female = 1), race (white = 1), sexuality (heterosexual = 1), and age (16–19, a continuous measure in years). Because of error in birthdays, five 20 year olds were recruited. These cases were recoded into the 'age 19 category' in order to keep them in analyses. *Left Home Due to Violence* was measured with a single item indicating if respondents left home due to violence (e.g. physical abuse by caretaker, being beat up by family members, being forcibly removed by a child welfare agency or police, or being raped by a family member). A score of 1 indicates that the respondent left home due to reports of violence. The alpha reliability for violence at baseline was .72. *Diagnostic criteria for substance use* were included at baseline to control for predispositions to alcohol and drugs. A value of 1 indicates meeting criteria for alcohol abuse, drug abuse, or alcohol dependence. *Caretaker sexual abuse* was measured at baseline with a mean scale of two questions that asked respondents if an adult caretaker had ever propositioned them for sexual favors or forced them to engage in sexual activities. Respondents must have answered one of the questions to be included in analyses. The correlation between these two items was (.92). *Caretaker physical abuse* was measured at baseline with a mean scale of 3 variables assessing amount of severe physical abuse respondents reported. Questions included being beat up with fists, being threatened with a weapon, or assaulted with a weapon. If respondents answered 2 of the 3 questions they were included in the scale.

Time Variant Covariates

Time was measured by wave (3 month intervals) where Wave 2 is the excluded time point. *Drug Use* was measured at each wave using a dichotomous variable assessing if respondents had engaged in any hard drug use since the last interview including crank, amphetamines, cocaine, opiates, hallucinogens, barbiturates, and inhalants. A value of 1 indicates respondents had engaged in hard drug use. *Gang Participation* was measured with a dichotomous variable assessing if respondents had participated in any gang activity since the last interview. A value of 1 indicates respondents had engaged in gang activity. *Deviant Peers* was measured at each wave with a sum of 13 variables assessing if respondents' close friends had run away, sold drugs, used drugs, been suspended or expelled from school, dropped out of school, shoplifted, broke into buildings, took money from someone, sold sexual favors, been arrested, threatened or assaulted someone with a weapon, or beat someone up. Respondents must have answered all 13 questions to be included in the scale. *Ever on Street* was measured with a dichotomous variable assessing if respondents had lived a day or more on the street since the last interview. A value of 1 indicates respondents had lived at least one day on the street. *Selling Drugs* was measured by a dichotomous variable indicating if respondents had sold drugs for money since the last interview. A value of 1 indicates respondents had sold drugs.

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Data Analysis

Longitudinal data analysis with repeated measures may be analyzed using an event history technique. Event History Analysis allows us to assess the correlates of event occurrences utilizing a discrete time logit model (Allison, 1984; Cox & Oakes, 1984; Heckman, 1981; Yamaguchi, 1991) where our dependent variable is a binary variable indicating the first act of violence. A discrete time model was chosen due to the advantages it supplies. First, discrete time models allow us to control for individual propensities and characteristics, such as exposure to violence measured at Wave 1. Early aggressive behaviors are often cited as one of the best predictors of later aggression (Kosterman, Graham, Hawkins, Catalano, & Herrenkohl, 2001; Loeber & Hay, 1997), thus controlling for prior violent activity is important in repeated time events. Second, these models allow us to incorporate time-varying explanatory variables (Allison & Waterman, 2002).

We utilized Logistic Regression with a stacked data file in SPSS Version 17 to estimate event history models of violence across the three years of our study. Time dummy variables were included to estimate survival and control for the longitudinal nature of our data. Event history models of victimizing allow us to control for individual propensities and characteristics while assessing the impact contemporary-time covariates. This event history analysis is an investigation of the risk for violent activity during the course of our study, not retrospectively using baseline questions. Thus, the omitted time point is actually their first longitudinal wave (Wave 2) with the six month time point (Wave 3) being their first comparison point.

Results

Table 1 shows descriptive statistics for the complete person-year file (n=300). Fifty-six percent of our sample was female, with the average age of 17.48 years. The majority of our sample was heterosexual (85%) and 61% of respondents identified as Caucasian. Approximately 64% of the sample had met criteria for alcohol abuse, drug abuse, or alcohol dependence three months prior at baseline. The mean score for prior caretaker abuse was just over .50 for both physical and sexual measures. Approximately 21% of youth left home due to violence, most commonly due to abuse by caretakers, but abuse by siblings was also reported.

Survival curve

The basic survival function estimates the time-to-event or the “probability of an individual surviving beyond time x” (Klein & Moeschberger, 2003, p.22). Our model estimates the probability of an adolescent committing violence by any given wave. By Wave 13 of the three-year study, all but three percent of the adolescents had engaged in some type of violent behavior (Figure 1). In order to understand the most frequent types of violence, we plotted individual violent behaviors across all 12 waves (see Figure 2). Although a 97% hazard rate for violence seems extremely high, the number of weapon related events were quite few (usually under 5% for each offense in any given wave). The adolescents were likely to state that they started a physical fight where someone could have been hurt or they tried to hurt someone badly in any wave (on average 8% – 14% at any particular wave).

Multivariate analyses

Table 2 shows the event history model predicting first violent activity during the course of the three year study. We estimated our model in two steps. Model 1 includes time dummies and baseline individual propensities for violence. The results in Model 1 show that several individual attributes contribute to violent behavior. Females were significantly less likely to

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engage in violence than were males (Exp(B) = .53, p < .001). Heterosexuals reported higher frequencies of violence than non-heterosexuals (Exp(B) = 1.79, p<.05). White respondents reported fewer instances of violence than nonwhite respondents (Exp(B) = .46, p<.001).

Meeting criteria for a substance use disorder at Wave 1 significantly increased the likelihood for engaging in violence (Exp(B) = 3.03, p < .001). A history of caretaker abuse was associated with an increased risk of perpetration of violence, with sexual abuse increasing violence by 26% and physical abuse increasing violence by 44% (Exp(B) = 1.26, p<.05; Exp(B) = 1.44, p<.01, respectively). Adolescents who reported leaving home due to violence were equally as likely to engage in violence as those who left home due to other reasons. Age was also non-significant.

Model 2 includes time-varying covariates showing the link between co-occurring behaviors and odds of engaging in violent behaviors after controlling for time and individual propensities. Respondents who reported hard drug use were twice as likely to report violence at that time (Exp(B) = 2.01, p < .01). Gang activity was significantly associated with increased perpetration of violence (Exp(B) = 4.08, p<.01). Associating with deviant peers and spending time on the street both significantly increased violence (Exp(B) = 1.14, p<.001; Exp(B) = 1.74, p<.05). Respondents who reported selling drugs were twice as likely to report perpetrating violence (Exp(B) = 2.09, p < .01).

All of the time-varying covariates in the model were statistically significant, even after controlling for background individual propensities (Model 2). Heterosexual and nonwhite respondents were almost twice as likely to report engaging in violent behavior (Exp(B) = 1.98, p<.05; Exp(B) = .51, p<.001, respectively). A prior substance abuse diagnosis increased perpetration of violence by 87% (Exp(B) = 1.87, p <.01). A history of caretaker abuse, both sexual and physical, continued to impact likelihood for engaging in violence above and beyond individual behaviors across the three years (Exp(B) = 1.26, p<.05; Exp(B) = 1.45, p<.01, respectively). Model 2 explained approximately 28% of the variance in perpetration of violence across time.

Discussion and Conclusions

All of our hypotheses were supported concurrently even after controlling for background factors. Over the course of the study nearly all of the young men and women engaged in violent behaviors. Unfortunately we cannot distinguish between reactive or self-protective violence and proactive violence. However, the associations in the event history model tell us a great deal in this regard. For example, engaging in deviant survival strategies such as selling drugs in any one wave of data collection greatly increased the likelihood of violent behavior in that wave. Also engaging in gang activities increased the likelihood of violence during the same wave nearly five fold. All of these potentially reflect a tendency towards proactive violent behaviors

There also is evidence that early socialization plays an important role. A history of physical abuse or sexual abuse by caretakers increased the odds of violent behaviors over the course of the study. Responsiveness to violence may be learned. That is, growing up in a coercive/ aggressive environment may make violent responses more likely in threatening situations (Patterson, Dishion, & Banks, 1984). Also, threatening environmental contexts increased the likelihood of violence. The more time spent directly on the street, the more likely the adolescents engaged in violent behaviors. Coercive/aggressive interaction styles learned in the family may result in “interactional continuity” where the communication pattern gets played out in novel situations. When the adolescents anticipated conflict they responded accordingly (Caspi & Bem, 1990). This also may be a factor in the positive association between violent behaviors and association with deviant peers. Coercive/aggressive

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adolescents tend to drift into deviant peer groups that tolerate or reciprocate this style of interaction. In these social contexts, conflict may escalate to violence similar to the processes in coercive/aggressive families. Patterson and colleagues (1984) point out that coercive/aggressive families are “basic training” for antisocial behaviors. Such training may yield violent results in the stress and uncertainty of street relationships.

It is important that we not lose sight of the extensive evidence indicating that homeless and runaway adolescents are at great risk for violent victimization. Nor do we want to give the impression that all runaway and homeless adolescents are violent predators. Rather, violence takes place in a context of high risk survival strategies, antisocial peers, and substance abuse. Substance use at once may reduce inhibition of violent tendencies at make the adolescent more vulnerable to violent victimization. Survival strategies such as drug dealing may be aggressive or they may involve the use of aggression for protection of self and product. Hypervigilence may increase violent responses to perceived threats.

Limitations

Although this study is a significant contribution to understanding victimizing behaviors among homeless and runaway adolescents, the results should be interpreted with several notes of caution. First, although our attrition analyses indicates that those who remained in the study over time were no different from those who left in terms of psychiatric diagnoses or history of violent behavior, those who left the study were likely to be younger and perhaps less street experienced. Just remaining in the study across time means more time on the street and hence more exposure to potentially violent situations. Second, this is a non-probability sample and does not reflect the national population of homeless and runaway adolescents: rather it reflects homeless adolescents in small to mid-sized cities in the Midwest. Third, we do not control for location sites due to previous analyses that have found little to no differences between locations in frequency of deviant behavior or subsistence strategies.

Conclusions

The violent nature of street life for runaway and homeless adolescents has been documented for decades. However, the specific situations in which violence occurs have received less attention. Homeless young people are exposed to environments that may demand protective reactions or survival strategies that increase the need for self protection or involve violence as means to an end. Violence begets violence in a cycle of victimizing behaviors and victimization. It is important to consider the ways that violent behaviors perpetuate and amplify the psychological and physical harm of homelessness among this age group.

It is also important to recall that the effects are complicated. Conduct disordered adolescents who have a propensity for violent behaviors also may be suffering from the effects of exposure to violence such as posttraumatic stress disorder or depression. Substance abuse may place the young people in potentially violent situations. Regardless of the context, or whether the adolescent is perpetrator or victim, violence exacts a huge psychological toll that makes getting off society’s margins more difficult. We believe the key is early intervention that breaks the cumulative continuity related to violent victimization and violence. The current work by Milburn, Rotheram-Borus, and colleagues (e.g., Milburn, Rotheram-Borus, Batterham, Brumback, Rosenthal, & Mallett, 2005; Rice, Milburn, & Rotheram-Borus, 2007) bears this out. Young people new to the streets have more options and are more likely to find a way out. No matter how difficult the adolescent, exposure to violence will only make things worse. Early protective interventions would decrease exposure to violent situations either as perpetrator or victim.

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Biographies

Devan M. Crawford, M.A. is the project data specialist for a longitudinal diagnostic study of American Indian children aged 10–12 years at the University of Nebraska-Lincoln. She graduated from the University of Nebraska-Lincoln in 2006 with her Master's degree in Sociology. She has recently worked on multiple projects assessing risk for school dropout among both homeless and American Indian adolescents.

Les B. Whitbeck, Ph.D. is the John G. Bruhn Professor of Sociology at the University of Nebraska-Lincoln. He graduated with his Ph.D. in sociology from Washington State University in 1986. He is principal investigator for the Midwest Longitudinal Study of Homeless Adolescents and is currently developing a program of research that focuses on homeless women and children. He is also principal investigator for a longitudinal diagnostic study of American Indian children aged 10–12 years. The project will follow the children and their caretakers as the children move through their high school years.

Dan R. Hoyt, Ph.D. is Professor and Chair of Sociology at the University of Nebraska-Lincoln. His current research interests include adolescent substance abuse and problem behaviors in the context of culture and community. He is also studying how changing interpretations of human subjects regulations are impacting inclusiveness in social science research studies.

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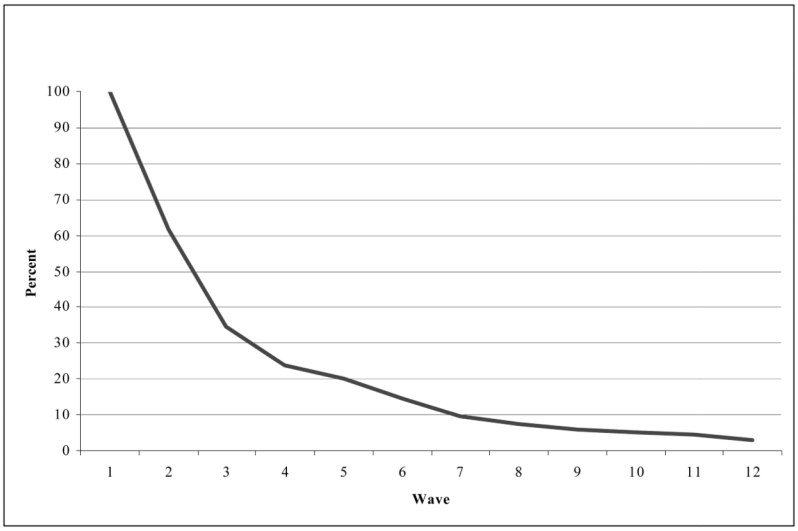

Figure 1.
Survival for Victimizing

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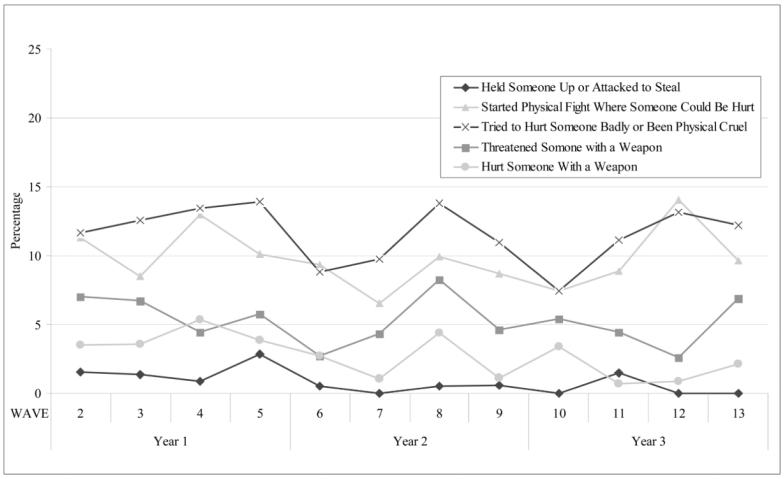

Figure 2.
Violent Behaviors Across Time

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Table 1

Table of Hypotheses

Historical Propensities (time-invariant)	
Hypothesis 1	Homeless and runaway adolescents with a history of severe physical abuse by caretakers will be more likely to engage in violent behavior on the street.
Hypothesis 2	Homeless and runaway adolescents with a history of sexual abuse by caretakers will be more likely to engage in violent behavior on the street.
Hypothesis 3	Homeless and runaway adolescents with a history of substance use will be more likely to engage in violent behavior on the street
Concurrent Propensities (time-variant)	
Hypothesis 4	Homeless and runaway adolescents who spend more time on the street during any particular wave of the study will be more likely to have engaged in violent behavior during that wave.
Hypothesis 5	Homeless and runaway adolescents who use drugs during any particular wave of the study will be more likely to have engaged in violent behavior during that wave.
Hypothesis 6	Homeless and runaway adolescents who sell drugs during any particular wave of the study will be more likely to have engaged in violent behavior during that wave.
Hypothesis 7	Homeless and runaway adolescents who participate in gang activity any particular wave of the study will be more likely to have engaged in violent behavior during that wave.
Hypothesis 8	Homeless and runaway adolescents who associate with deviant peers during any particular wave of the study will be more likely to have engaged in violent behavior during that wave.

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Table 2

Sample Descriptives (n=300)

	Mean	Range
Female	.56	0,1
Age	17.47	16 – 19
Heterosexual	.85	0,1
White	.61	0,1
Substance Use	.64	0,1
Sexual Abuse	.55	0 – 3
Severe Physical Abuse	.56	0 – 3
Left Home Due to Violence	.21	0,1

*Note: All 0,1 variables are dichotomous.

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Table 3

Event History Regression Analysis (n=300)

	Model 1		Model 2	
	B	**Exp(B)**	**B**	**Exp(B)**
Baseline				
Female	−.63	**.53** **	−.19	.83
Age	−.06	.95	−.02	.99
Heterosexual	.59	**1.79** *	.68	**1.98** *
White	−.79	**.46** ***	−.67	**.51** ***
Left Home Due Violence	−.23	.79	−.25	.78
Substance Use	1.11	**3.03** ***	.63	**1.87** **
Sexual Abuse	.23	**1.26** *	.24	**1.26** *
Physical Abuse	.36	**1.44** **	.37	**1.45** **
Time Varying Covariates				
Using Drugs			.70	**2.01** **
Gang Participation			1.41	**4.08** ***
Deviant Peers			.13	**1.14** ***
Ever on Street			.55	**1.74** *
Selling Drugs			.74	**2.09** **
Constant	−1.32	.27	−3.31	**.04** †
df/χ^2	19.00	112.60	24.00	199.75
Log Likelihood		828.13		740.98
Cox & Snell R-Square		.08		.14
Nagerlkerke R-Square		.16		.28

NOTE: Time Dummies are included but not shown in both Model 1 and 2

* $p \leq .05$

** $p \leq .01$

*** $p \leq .001$