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Early Child Maltreatment, Runaway Youths, and Risk of Delinquency and Victimization in Adolescence: A Mediational Model

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Abstract

This article examines whether running away from home mediates the link between child maltreatment and later delinquency and victimization in adolescence. Specifically, the authors tested the hypothesis that childhood physical and psychological abuse increase the risk of a child's running away from home by the time of adolescence. Running away from home is, in turn, hypothesized to increase the risk of delinquency and victimization. Childhood sexual abuse, modeled independently of physical and psychological abuse, is hypothesized to have a similar effect on the intervening factor of running away, as well as the two adolescent outcomes: delinquency and victimization. The sample of 416 adolescents was drawn from the Lehigh Longitudinal Study conducted in a two-county area of Pennsylvania. Findings show that physical and psychological abuse predict a child's running away from home. Running away predicts later delinquency and victimization and partially mediates the effect of earlier abuse. Both child abuse and running away from home are adverse events that can be addressed through systematic prevention and intervention efforts tailored to those who have been victimized. Findings can support social workers in their efforts to advocate on behalf of child abuse victims in developing interventions and support services.

Keywords

child abuse; delinquency; mediation; runaway youths; victimization

Approximately 2.8 million children in the United States run away from home each year, and one out of every seven youths will run away sometime before age 18 (Greene, Ringwalt, Kelly, Iachan, & Cohen, 1999). Research suggests that teenage runaways often leave home to avoid further physical or sexual abuse (Hammer, Finkelhor, & Sedlak, 2002). After running away from home, adolescents face many challenges on the streets. Many engage in deviant or risky behaviors, such as panhandling, shoplifting, selling drugs, theft, and prostitution as a means of survival (Hagan, McCarthy, Parker, & Climenhage, 1997). Some also become victims of delinquency and crime. Baron and Hartnagel (1998) found that long-term homelessness and associated factors increased the risk of violent crime perpetration, including robbery, aggravated assault, and "group fights" on the street. Although it is hypothesized that running

away from home is a possible link between childhood abuse and later delinquency and victimization during adolescence, few studies have empirically investigated this longitudinal relationship (Kaufman & Widom, 1999; Thrane, Hoyt, Whitbeck, & Yoder, 2006, discussed later). The present study tested whether running away from home acted as a mediator of the relationship between early child physical and psychological abuse and later delinquency and victimization. Child sexual abuse also was included in the analysis as an independent predictor of running away, delinquency, and victimization. To provide context for the current study, we review additional research on the link between child abuse and the tested outcomes of delinquency and victimization and examine evidence regarding running away from home as a potential mediator.

Literature Review

Child Abuse and Risk of Delinquency and Victimization

Considerable research has documented that child abuse increases the risk of adolescents becoming perpetrators or victims of violence and other criminal behaviors (T. I. Herrenkohl, Huang, Tajima, & Whitney, 2003; Hetzel & McCanne, 2005; Lemmon, 1999; Widom & Maxfield, 2001; Wolfe, Scott, Wekerle, & Pittman, 2001). T. I. Herrenkohl et al. (2003) found that physical child abuse increased the likelihood of adolescents becoming involved in violent delinquency. Lemmon (1999) found that victims of physical and sexual abuse and neglect in childhood were more likely to become juvenile delinquents than were others who were not abused. In a national longitudinal study that compared a control group to individuals who had substantiated abuse histories, researchers found a higher likelihood of arrests for those who had been abused (27.4% versus 17% for the control group) (Widom & Maxfield, 2001). Risk of victimization also appears higher for maltreated children, although findings are sparse (Hetzel & McCanne, 2005; Schaaf & McCanne, 1998). For example, Hetzel and McCanne (2005) found that both physical and sexual abuse as a child significantly increased the risk among college females of being forced into nonconsensual sex and of becoming victims of violence between ages 16 and 21.

Although findings suggest that there is considerable overlap in differing types of child abuse, it is unclear whether each type has a similar effect on outcomes. For example, T. I. Herrenkohl and Herrenkohl (2007) found that child sexual abuse predicted externalizing behaviors in adolescence over and above the effect of a general construct of child maltreatment, as well as other stressors, SES, and child gender. Fergusson and colleagues (2008) also found sexual abuse in childhood to have a unique effect on later outcomes. In their study, sexual abuse predicted mental health problems at ages 16 through 25 after accounting for social, family, and individual factors. However, other studies found sexual abuse a less robust predictor of outcomes (Arata, Langhinrichsen-Rohling, Bowers, & O'Brien, 2007; Widom & Ames, 1994; Zingraff, Leiter, Johnsen, & Myers, 1994). For example, Widom and Ames (1994) found that individuals exposed to physical abuse and neglect in childhood had more arrests for violent sex crimes (for example, rape) and property crimes (for example, burglary) than did those in the control group, whereas those with a history of sexual abuse did not differ from those in the control group in numbers of arrests. Those with a sexual abuse history were, however, more likely to be arrested for prostitution than those who were physically abused or neglected or not abused. Zingraff and colleagues (1994) found that victims of physical abuse and neglect were at higher risk of delinquency involvement compared to nonabused youths; however, those who were sexually abused did not appear to be at higher risk of delinquency in that study.

Running Away as a Mediator of Child Abuse and Youth Outcomes

Previous literature has documented an association between running away from home and a history of child abuse (Feitel, Margetson, Chamas, & Lipman, 1992; Hagan et al., 1997;

Hammer et al., 2002; U.S. Department of Health and Human Services, 1997; Whitbeck, Hoyt, & Ackley, 1997). For instance, Whitbeck and colleagues (1997) surveyed runaway youths and their caregivers in four midwestern states. They found that, while growing up, the boys (33%) and the girls (30%) who ran away had been hit with an object, and 18% of the girls had been sexually abused by an adult caregiver. Youth self-reports showed rates of abuse to be even higher: 65% of boys and 70% of the girls who ran away indicated they had been hit with an object, and 30% of the girls had been sexually abused. Although rates of abusive behavior reported by caregivers appeared lower than those of adolescents, both sources show high levels of parent-to-child violence in families of runaway youths, particularly noteworthy when general population figures suggest that only 7% of parents use similar abusive practices (that is, slapped, spanked, hit with an object) with their adolescent children (Straus & Gelles, 1990).

Evidence suggests that running away from home and living on the streets during adolescence increases the risk of becoming involved in delinquency and victimization, although studies have yet to determine (with adequate replication of findings across studies) the extent to which running away fully or partially accounts for the overlapping occurrence of child abuse. In one study of 602 runaways in Missouri, Iowa, Nebraska, and Kansas, Thrane and colleagues (2006) found that physical or sexual abuse or neglect were common precursors of youths running away from home. Furthermore, this study indicated that homeless youths who were neglected and sexually abused at home were more likely to be criminally victimized than those who were not exposed to neglect and sexual abuse before running away. Another study by Kaufman and Widom (1999) examined whether running away from home mediated effects of officially recorded child abuse on later delinquency (also measured by official records). Findings suggest that, whereas maltreatment (broadly defined as any abuse or neglect) and running away both independently increased the risk of juvenile arrests, running away did not mediate the relation between abuse and delinquency. The present study builds on earlier research by analyzing child abuse measured with both parent reports (used prospectively) and retrospective youth reports of early severe disciplining and by examining a range of delinquent behaviors in composite outcomes of delinquency perpetration and victimization.

The conceptual model that guided the study is shown in Figure 1. Here, exposure to child abuse is hypothesized to increase the risk of running away from home. Sexual abuse is modeled apart from other forms of abuse to account for possible differences in its prediction of the hypothesized intervening and outcome variables (Fergusson et al., 2008; T. I. Herrenkohl & Herrenkohl, 2007). Running away is modeled as a single, intervening variable linking abuse to the outcomes of delinquency and victimization. Socioeconomic status (SES) of families and child gender are included in the model as controls. Both SES (Bornstein, Hahn, Suwalsky, & Haynes, 2003; T. I. Herrenkohl et al., 2003) and gender (Arata et al., 2007; Whitbeck & Simons, 1993; Wolfe et al., 2001) have been shown elsewhere to compete with abuse in predicting youth outcomes.

Method

Sample

Data were taken from the first three waves of the Lehigh Longitudinal Study (R. C. Herrenkohl, Herrenkohl, Egolf, & Wu, 1991; T. I. Herrenkohl et al., 2003). Lehigh is a prospective study of children and families begun in the mid-1970s to examine correlates and consequences of child maltreatment. Families were recruited from five sources: child welfare abuse and protective service programs, Head Start classrooms, day care programs, and private nursery programs in a two-county area of eastern Pennsylvania. Data from multiple settings were collected at three key developmental points for children (preschool–early childhood, middle childhood–school age, and adolescence). The fully integrated longitudinal sample included

457 children from 297 families: 144 children from child welfare abuse programs, 105 from child welfare protective service programs, 70 from Head Start, 64 from day care programs, and 74 from nursery school programs. Parents consented in writing to participation in the first two waves of the study and were informed about confidentiality. Written consent was obtained from youths in the third wave of the study, when participants were adolescents. For each wave of data collection, procedures were in place to respond to cases of suspected ongoing child abuse.

The full sample ($N = 457$) contained 248 (54%) boys and 209 girls from 297 families. Sixty-three percent of families had incomes below \$700 per month in 1976 to 1977. Eighty-six percent of the children were, at time of initial assessment, from two-parent households. In 52% ($n = 155$) of the families one child was assessed; in 43% ($n = 128$) of the families two children were assessed; and in 5% ($n = 14$) of the families three or four children were assessed.

In the adolescent wave of data collection conducted in 1990 to 1991, 416 (91%) of the original 457 children were reassessed. Of the 416 participants, 229 (55%) were boys. Eighty-one and a half percent ($n = 339$) self-identified as white, 5.0% ($n = 21$) as black or African American, 1.4% ($n = 6$) as American Indian/Alaska Native, 0.2% ($n = 1$) as Native Hawaiian or other Pacific Islander, and 11.7% ($n = 49$) as more than one race. The ethnicity of participants, measured as recommended by the U.S. Census Bureau (Grieco & Cassidy, 2001), consists of 7.2% ($n = 30$) Hispanic or Latino and 92.8% ($n = 386$) not Hispanic or Latino. Mean age of participants was 18 years (range: 14 to 23 years). The 41 participants not reexamined in adolescence did not differ on several key factors, including childhood SES and severity of physical discipline, from those who remained.

Measures

Child Physical and Psychological Abuse—This variable included both parent reports (used prospectively) and retrospective adolescent measures of abusive discipline directed to children up to age 12. Prospective and retrospective measures were included in the study to reduce bias introduced by reliance on a single data source. The prospective measure of physical abuse is based on parents' (generally mothers') reports of having used one or more of nine kinds of discipline practices: biting a child; biting a child so as to bruise; putting pepper in a child's mouth; slapping a child so as to bruise; hitting a child with a stick, paddle, or other hard object; hitting a child with a strap, rope, or belt; hitting or paddling a child so as to bruise; burning a child; or burning a child so as to leave burn marks. Psychological abuse is a count of emotionally severe discipline techniques (five kinds): locking a child out, isolating a child, ridiculing or making fun of a child, threatening that parents would leave a child, or threatening to send a child away. According to our prospective measure of severe physical disciplining, 82.2% of children in the analysis sample were found to have been abused; 58.2% were found to have been psychologically abused.

Our youth retrospective measures of physical and psychological abuse included the same behaviors as those included in the prospective measures. Here, responses refer to any abuse in a child's first 12 years (that is, birth to age 12). Of the youths assessed in adolescence, 80.2% retrospectively reported at least one type of physical abuse; 71.6% reported at least one kind of psychological abuse. Discrepancies in rates of abuse shown with the retrospective and prospective measures may reflect differences in disclosure of abuse, possible inaccurate recall, or perceived differences in the meaning or characterization of a particular form of discipline. It is also likely that some variation in recorded rates of abuse is due to slightly different reference periods covered by the retrospective and prospective measures. However, prior research on closely related measures of childhood abuse shows moderate, significant, correspondence between the prospective and retrospective data of the Lehigh study (Tajima, Herrenkohl, Huang, & Whitney, 2004). [Note: the measure of physical abuse used in our earlier

study included fewer items than the one used here (including burning a child); thus, the small difference in prevalences reported in this vs. the earlier study is likely a function of the number of items that comprise each scale.]

In the current analyses, two prospective (physical and psychological) and two retrospective measures were modeled as indicators of a single latent construct.

Sexual Abuse—This variable was assessed and analyzed apart from the other two forms of abuse to account for its potential unique effect on the hypothesized outcomes, delinquency and victimization. In the adolescent wave of the study, respondents were asked whether they had been sexually abused, including rape and other forms of earlier sexual victimization. Approximately 35% of those who responded (yes/no) in the adolescent assessment indicated that they had been sexually abused.

Runaway—This variable assessed the number of incidents of running away from home before age 18, self-reported by youths in adolescence. After recoding to handle outliers, scores ranged from 0 to 12, with 33.4% of adolescents indicating that they had ever run away from home before age 18. The mean frequency score is 1.12 with a standard deviation of 2.56. This variable was analyzed as a continuous variable in the following latent variable models.

Delinquency—This variable consisted of 10 items derived from youth reports on the number of times in the past year they had been involved in violence (three items, sample question: “How many times have you hit someone with the idea of seriously hurting or killing this person in the past year?”); stealing (four items, sample question: “How many times have you ever snatched someone's purse or wallet or picked someone's pocket in the past year?”); and selling drugs or stolen goods (four items, sample question: “How many times have you ever sold marijuana or hashish in the past year?”). Means of each type of delinquent behavior, treated as continuous variables, were created and used as indicators of a single delinquency latent construct.

Victimization—This variable consisted of four items derived from youth reports on the number of times in the past year they had been a victim of theft (one item, “How many times has something been taken directly from you or an attempt made to do so by force or by threatening to hurt you in the past year?”); a victim of violence (two items, sample question: “How many times have you been attacked with a weapon, such as a gun, knife, bottle, or chair by someone in the past year?”); and sexually victimized (one item, “How many times have you been sexually attacked or raped or an attempt made to do so in the past year?”). These three types of criminal victimization (a mean of the two violence items was used for violence victimization), treated as continuous variables, were used as indicators of a single victimization latent construct.

Gender—This variable, a covariate in the model, was coded 1 for boys and 2 for girls. The *SES* variable includes family income, mother's education level, mother's occupation, and number of rooms in a family's home. Information on SES was obtained from parent interviews in the preschool period. To form a single SES score for each child, each variable was standardized, and then the mean of the standardized, summed scores for the four variables was taken (Cronbach's $\alpha = .72$). Across all of the earlier mentioned items in the present study, higher scores reflect more of the indicated measure. A full list of items that make up each measure is available upon request from the corresponding author.

Analysis

Analyses were conducted with Mplus version 4.21 (L. K. Muthén & Muthén, 1998–2006). To account for possible case clustering (interdependence among observations) within families, models were run using the Mplus CLUSTER with COMPLEX method. This procedure provides adjusted standard errors and overall chi-square tests of model fit (L. K. Muthén & Muthén, 1998–2006). In addition, the weighted least squares mean variance adjusted estimator was used to accommodate the modeling of ordered categorical variables of child maltreatment. Model fit for the latent variable models was assessed using the mean- and variance-adjusted chi-square statistic (B. O. Muthén, du Toit, & Spisic, in press); the root mean square error of approximation index (RMSEA) (Browne & Cudek, 1993); and the comparative fit index (CFI) (Bentler, 1990). CFI values above .95 indicate a good fit to the data; RMSEA values below .08 indicate adequate model fit (Tabachnick & Fidell, 2001).

Our analyses followed a two-step process. In the first step, a confirmatory factor analysis (CFA) model was estimated to assess the overall fit of the measurement model and associations among model constructs. The second step consisted of testing a structural model to examine the hypothesized relationships among model constructs. To test the degree to which running away acted as a mediator of child abuse on later delinquency and victimization, we used estimates of indirect effects generated with the Mplus model INDIRECT command, which computes the product of component paths and Delta method standard errors (L. K. Muthén & Muthén, 1998–2006; Sobel, 1982).

To address possible gender differences in the association among variables in the analysis, we conducted a series of preliminary tests to examine invariance of the measurement and structural models. Results of these model tests showed that, although the strength of associations among the variables differed in a small number of cases (for example, covariance of abuse and delinquency), the overall pattern in the data for boys and girls was generally the same. Thus, we opted to retain the full sample and include gender as a control in the model.

Results

CFA Model

Factor loadings from the CFA model are shown in Table 1. In this model, the metric of the child abuse latent construct was set by fixing the loading of the retrospective physical abuse indicator to 1 to reflect its higher correlations with the other three indicators. Similarly, the factor loading for one indicator of the delinquency and victimization latent constructs (violence and sexual victimization) was set to 1 to scale the constructs. All factor loadings were positive and significant. Although both parent and youth reports of child abuse loaded significantly on the child abuse construct, the factor loadings of the retrospective abuse indicators are notably larger (unstandardized loadings of retrospective physical and psychological abuse = 1.00 and .93 compared with .46 and .48, respectively), indicating their stronger overall contributions to the latent construct.

Correlations among the measured and latent constructs were significant and in the hypothesized direction (Table 2). There were also significant correlations between child abuse and youth delinquency; child abuse and victimization; child abuse and runaway; and runaway and the two youth outcomes. Sexual abuse had a significant, but less strong, correlation with runaway and the two youth outcomes when compared with the child abuse latent construct. Delinquency and victimization were positively correlated ($r = .45$). Overall, the CFA model fit the data well: ($\chi^2(23, N = ??) = 64.42, p < .001, CFI = .98, RMSEA = .07$).

Structural Model

The structural model examined both indirect and direct effects of the latent construct of physical and psychological abuse and the measured sexual abuse variable (Figure 2). Path coefficients in Figure 2 are standardized estimates. Physical and psychological abuse and sexual abuse were allowed to covary. Gender and SES were entered in the model as controls to account for their association with abuse and parallel prediction of runaway, delinquency, and victimization. The structural model fit the data well: [χ^2 (29) = 86.88, $p < .001$, CFI = .95, RMSEA = .07].

Paths from the child abuse latent construct to runaway and from runaway to delinquency and victimization were statistically significant and in the hypothesized directions. Although there was a significant bivariate correlation between physical and psychological abuse and the delinquency outcome (Table 2), here the effect was notably reduced and only marginally significant. Physical and psychological abuse remain significant predictors of victimization after accounting for other variables in the model; however, compared with results of the CFA, the association is lessened. Tests of the indirect effects of the latent abuse construct through runaway on youth outcomes were all statistically significant ($p < .001$), providing further evidence of partial mediation. Sexual abuse had a significant direct effect on youth victimization after accounting for SES, gender, and physical and psychological abuse ($p < .001$), whereas the association with delinquency was only marginally significant. However, unlike physical and psychological abuse, sexual abuse was unmediated by runaway in its prediction of delinquency and victimization. Overall, the structural model explained 12% of the variance in delinquency and 31% of the variance in victimization—modest, but comparable to other structural equation modeling studies in which these or similar outcomes are examined (Huang, Kosterman, Catalano, Hawkins, & Abbott, 2001; Whitbeck & Simons, 1993).

Discussion

This study examined running away from home as a possible mediator of child abuse (physical, psychological, and sexual) in the prediction of delinquency and victimization in adolescence. Results showed that a history of child physical and psychological abuse predicted running away, which, in turn, predicted higher delinquency and victimization scores, after accounting for gender and SES. Furthermore, analyses showed that sexual abuse is an independent predictor of later victimization in particular, unmediated by runaway. These findings differ somewhat from those of Kaufman and Widom (1999) who found no evidence of abuse mediation in tests of running away and adolescent delinquency. Although our study appears to suggest a more important role of running away as a mechanism through which abuse affects adolescent outcomes, differences may also be attributable to measurement issues, use of different data sources (for example, official versus parent and youth reports of abuse), and age of respondents at the time of assessment. Further replication and testing of the hypothesized model should help determine whether these or other factors are at play.

Consistent with prior research (for example, T. I. Herrenkohl et al., 2003; Hetzel & McCanne, 2005; Widom & Maxfield, 2001), this study shows that child abuse plays a significant role in the etiology of delinquency and victimization during adolescence. Earlier research suggests that physical abuse is associated with increased risk of delinquency, perhaps due to the long-term emotional impact on victims or subsequent exposure to other risk processes that follow the abuse experience (T. I. Herrenkohl et al., 2003; Kendall-Tackett, Williams, & Finkelhor, 1993; Williams & Herrera, 2007). Evidence thus suggests the need for improved screening and treatment of underlying factors that predispose vulnerable, abused children to later difficulties. Findings also suggest that youth involved in delinquency are more likely than others to be victims of crime, both of which co-occur more often for youth who have run away from home. This finding supports delinquency prevention and intervention that account simultaneously for

common risks and co-occurring outcomes in a highly vulnerable and underserved youth population.

Indeed, many runaway youth leave abusive families to escape places where they feel hurt, neglected, or unwanted (Baron & Hartnagel, 1998; Hammer et al., 2002). Prior research has noted that running away from home and living on the streets exposes children and adolescents to further risks and few resources (Hagan et al., 1997; Thrane et al., 2006; Whitbeck & Simons, 1993). Because of their status as minors, adolescents are compromised in their capacity to find legitimate employment and to receive income support benefits and rental subsidies. Prior studies of homeless youth have emphasized the increased risk of a child's being exploited or coerced into delivering drugs; participating in theft or robbery as they attempt to secure money, food, or housing; or continuing in homelessness as an adult (Hagan et al., 1997; Whitbeck & Simons, 1993). For instance, Whitbeck and Simon (1993) interviewed 156 homeless adolescents and 319 homeless adults and compared their adaptation to life on the streets and rates of criminal victimization when on the streets. They found that homeless youth were more likely to rely on risky subsistence strategies and more likely to be criminally victimized than were homeless adults. Corroborating findings of prior research, the current study supports programs and policy reform to increase access to social services, including housing, employment, and income supports, for homeless and runaway youth.

In our study, a history of sexual abuse was modeled independently of physical and psychological abuse to examine its unique effects on running away from home, delinquency, and criminal victimization in adolescence. Findings show that childhood sexual abuse is linked to an increased risk of becoming a victim of theft or violent or sexual crime. However, sexual abuse was less strongly predictive of youth delinquency (assessed by violence, stealing, or selling drugs or stolen goods) when controlling for other variables. In an earlier study using these data, T. I. Herrenkohl and Herrenkohl (2007) found that sexual abuse was independently predictive of youth externalizing and internalizing behaviors after accounting for other forms of abuse, child neglect, and children's exposure to domestic violence. Thus, findings regarding sexual abuse may vary according to the types of child maltreatment included in analyses and specific variables examined as possible outcomes of abuse. Further research is needed to better understand the roles and varying effects of abuse types on outcomes for adolescents.

There are several limitations of the study. Running away was measured at the same time as delinquency and victimization, so temporal ordering in the hypothesized model is not fully established. In addition, our running away measure did not account for duration of time living on the streets, reasons for leaving home, or additional risks encountered as runaway youths. Further research should explore whether or not such variables significantly affect the risk of co-occurring or subsequent delinquency and victimization.

In sum, this study supports the notion that running away from home accounts in part for the association between earlier child abuse and later delinquency and victimization in adolescence. The findings suggest that both child abuse and running away represent critical targets for intervention and prevention of subsequent negative outcomes among youths. Absent appropriate interventions, runaway youths are at risk of a variety of problems and are challenged in making successful transitions into young adulthood.

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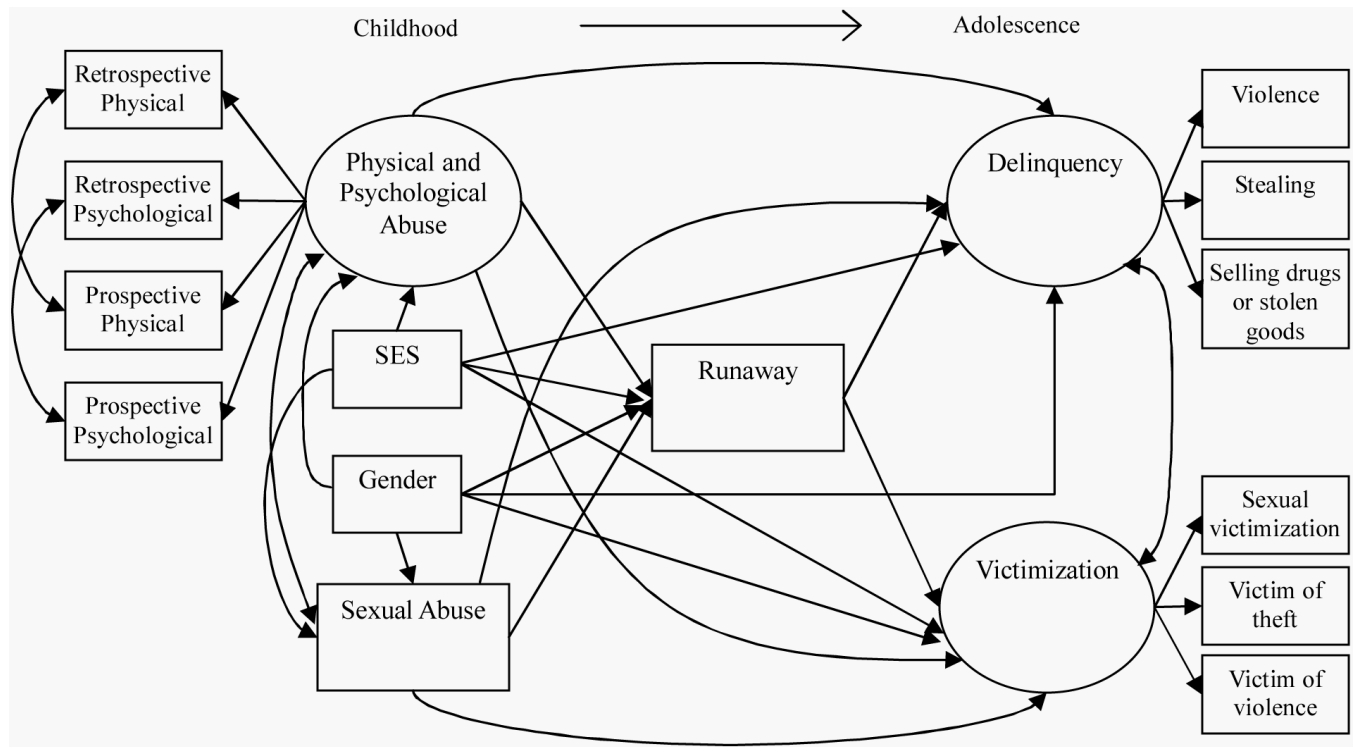
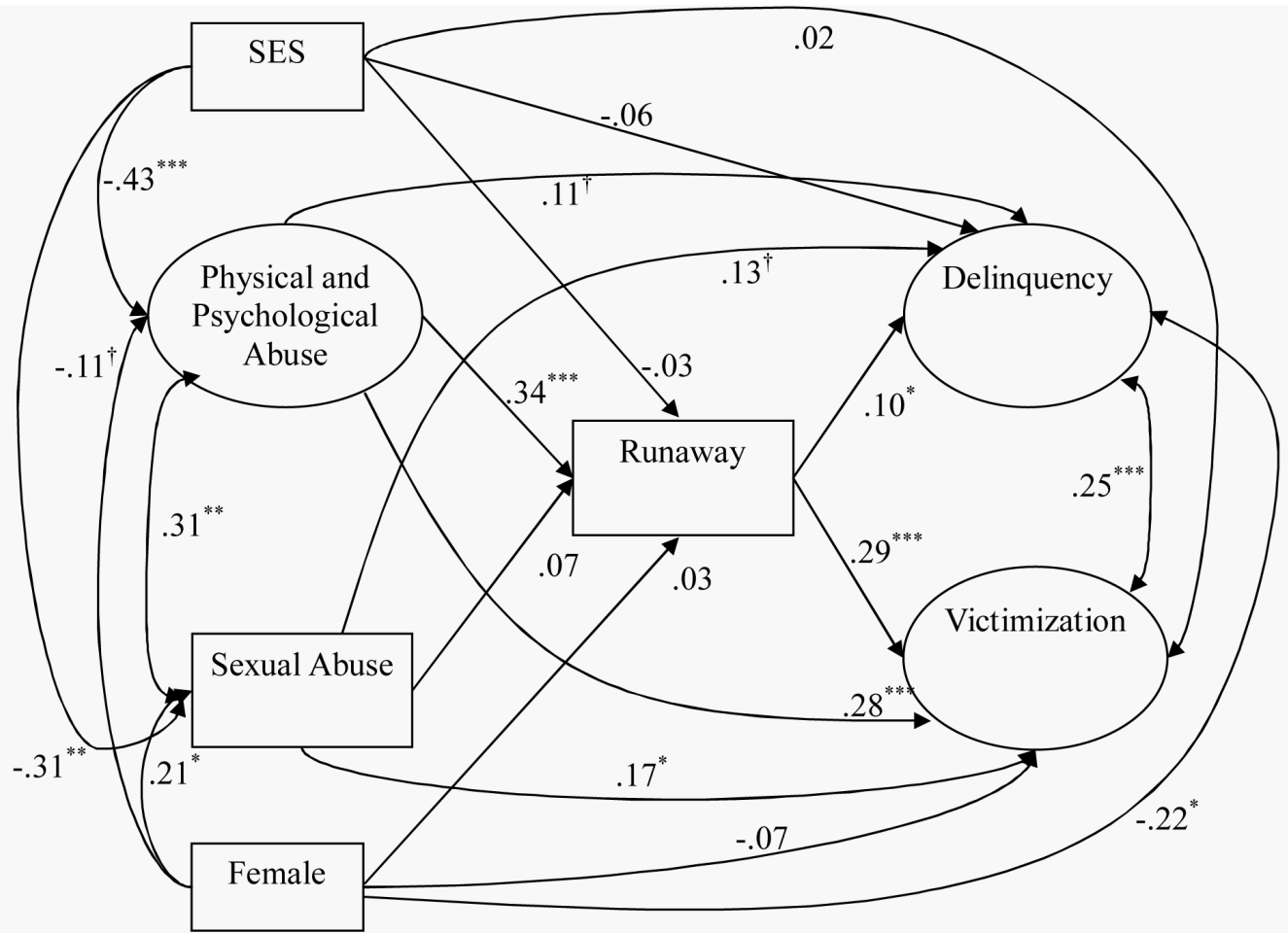


Figure 1.
Conceptual Model



Note: All values presented are standardized coefficients; SES = socioeconomic status. $\chi^2(29, N = 416) = 86.88$, CFI = .95, RMSEA = .07.

$^{\dagger}p < .10$. $^*p < .05$. $^{**}p < .01$. $^{***}p < .001$.

Figure 2. Structural Equation Modeling Results of the Effects of Child Maltreatment and Sexual Abuse on Runaway and Youth Delinquency and Victimization

Table 1

Unstandardized and Standardized Factor Loadings for the Confirmatory Factor Analysis

Factor	Indicators	Unstandardized Factor Loadings (SE)	Standardized Factor Loadings
Child abuse	V1 (retrospective physical)	1.00 (.00)	.74
	V2 (retrospective psychological)	0.93 (.05)	.69
	V3 (prospective physical)	0.46 (.08)	.34
	V4 (prospective psychological)	0.48 (.10)	.35
Delinquency	V5 (violence)	1.00 (.00)	.61
	V6 (stealing)	0.95 (.06)	.57
	V7 (selling drugs or stolen goods)	0.99 (.14)	.60
Victimization	V8 (being taken)	1.00 (.00)	.52
	V9 (violence victimization)	0.88 (.08)	.46
	V10 (sexual victimization)	0.87 (.09)	.55

Note: All factor loadings are significant at $p < .001$.

Table 2

Correlations Among Measured and Latent Variables

Variables	1	2	3	4	5	6	7
1. Physical and psychological abuse	—						
2. Sexual abuse	.45***	—					
3. Runaway	.39***	.24***	—				
4. Delinquency	.26***	.18**	.19***	—			
5. Victimization	.47***	.37***	.44***	.45***	—		
6. SES	-.45***	-.32***	-.20*	-.18**	-.26***	—	
7. Female	-.12*	.22***	.01	-.23***	-.10 [†]	-.01	—

Note: SES = socioeconomic status.

[†] $p < .10$.

* $p < .05$.

** $p < .01$.

*** $p < .001$.