

## Living in Partner-violent Families: Developmental Links to Antisocial Behavior and Relationship Violence

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**Abstract** Links between living in a partner-violent home and subsequent aggressive and antisocial behavior are suggested by the “cycle of violence” hypothesis derived from social learning theory. Although there is some empirical support, to date, findings have been generally limited to cross-sectional studies predominantly of young children, or retrospective studies of adults. We address this issue with prospective data from the Rochester Youth Development Study (RYDS), an ongoing longitudinal investigation of the development of antisocial behavior in a community sample of 1,000 urban youth followed from age 14 to adulthood. The original panel included 68% African American, 17% Hispanic, and 15% White participants, and was 72.9% male, and 27.1% female. Measures come from a combination of sources including interviews with parents, interviews with youth, and official records. We test the general hypothesis that there is a relationship between living in partner-violent homes during adolescence, and later antisocial behavior and relationship violence. Employing logistic regression and controlling for related covariates, including child physical abuse, we find a significant relationship between exposure to parental violence and adolescent conduct problems. The relationship between exposure to parental violence and measures of antisocial behavior and relationship aggression dissipates

in early adulthood, however, exposure to severe parental violence is significantly related to early adulthood violent crime, and intimate partner violence. Our results suggest that exposure to severe parental violence during adolescence is indeed consequential for violent interactions in adulthood.

**Keywords** Cycle of violence · Intimate partner violence · Developmental criminology · Crime · Violence · Relationship violence · Exposure to family violence · Antisocial behavior · Adolescence · Emerging adulthood

Current studies indicate that a large number of children are raised in homes where intimate partner violence (IPV) occurs. Interdisciplinary research over many years has indicated that family violence in general places children at risk for a range of problem outcomes including antisocial behavior in adolescence and adulthood (Barnett et al. 2005). Maltreatment as one dimension of family violence has gathered solid status as a predictor of crime and antisocial behavior during adolescence (Smith and Thornberry 1995; Stouthamer-Loeber et al. 2001; Widom 1989a) and adulthood (Smith et al. 2005; Widom and Maxfield 2001). However, knowledge about the impact of other dimensions of family violence—particularly growing up in a partner-violent family—on adolescent and subsequent adult development is much less developed.

A particular contrast with the research literature on the consequences of maltreatment is the lack of longitudinal studies that track youth raised in partner-violent families throughout adolescence and into adulthood. Margolin (2005, p. 74) recently argued that “prospective, longitudinal research designs are needed to test developmental models” related to the consequences of living in a

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partner-violent family as a child or an adolescent (see also Carlson 2000; Jouriles et al. 2001). To address this need, this study employs longitudinal data from an urban community sample to examine whether a range of antisocial outcomes in adolescence and early adulthood are related to living in a partner-violent family during adolescence, after taking into account co-occurring risks including socioeconomic disadvantage, family transitions, and child physical abuse.

### The Extent of Partner Violence Exposure

The national extent of partner violence (perpetration and victimization) and family violence directed at children was first illuminated by the National Family Violence Surveys conducted in the 1970's by Straus and colleagues (Straus 1979). The National Family Violence Surveys and subsequent systematic examination of family violence revealed a much broader and more frequent range of experiences of partner violence, as well as physical abuse of offspring. Nevertheless, research on domestic violence as a risk factor for children raised in partner-violent families has only recently emerged as a target of public and scholarly concern (Jacobson 2000).

Generally, the prevalence of domestic violence has been established through surveys of adults, and estimates vary widely. Community surveys find that about one in six couples experience domestic violence annually (Jouriles et al. 2001; Schafer et al. 1998; Straus and Gelles 1990; Wolak and Finkelhor 1998). In 2001, National Crime Victimization Survey data show that 20% of nonfatal violent crime experienced by women was partner violence (US Department of Justice 2003). The National Violence against Women Survey indicated that 22% of surveyed women and 7% of surveyed men reported they were physically assaulted by a current or former spouse, cohabiting partner, boyfriend or girlfriend (Tjaden and Thoennes 2000). More recently, McDonald et al. (2006) collected data on a national probability sample of 1,615 married or cohabitating couples. They found that partner violence (as measured by the Conflict Tactics Scale) was reported by 21.45% of the sample, and severe partner violence was reported by 8.64% of the couples. Additional research indicates that rates of domestic violence are higher among younger couples, cohabiting couples and couples with children (Bardone et al. 1996; Magdol et al. 1998). National estimates of domestic violence are incomplete, however, and we know even less about the prevalence of exposure to domestic violence among children living in partner-violent homes (Fantuzzo and Fusco 2007; McDonald et al. 2006; Osofsky 2003).

There is little uniformity in definitions and there are no national prevalence data of child or adolescent exposure to

intimate partner violence (Edleson 1999; Fantuzzo and Mohr 1999; Holden 1998; Tomison 2000). A commonly cited estimate is that 10% to 20% of all children are exposed to partner violence, or up to 10 million children annually (Carlson 2000). Most recently, McDonald et al. (2006) estimated that "... approximately 15.5 million American children live in dual-parent households in which intimate partner violence had occurred in the past year... this means that 29.4% of children in dual-parent homes live in a family in which partner violence has recently occurred" (p. 139).

Researchers assume that children who live in partner-violent households are "exposed" to this violence, although this assumption has been rarely assessed directly. Studies of police domestic violence calls have suggested that in homes with children, the majority of children (81%) in partner-violent homes were directly exposed either to the sight or sound of parent partner violence. Moreover, in the majority of cases, prior parent violence had occurred in the home (Fantuzzo and Fusco 2007). A recent meta-analysis found that in the few studies that make a direct comparison between actual measured exposure compared to presence in a partner-violent home, there was no mean group difference in impact on a range of outcomes including externalizing behavior (Kitzmann et al. 2003). Thus, the assumption that children and adolescents living in partner-violent homes are exposed to this violence appears reasonable, and from this point, we use the terminology "exposure to intimate partner violence" (EIPV).

Another complexity related to understanding the consequences of growing up in a partner-violent home pertains to the potentially confounding issue of child physical abuse. Most research on family violence has focused on either child maltreatment or domestic violence exposure (Simons et al. 2004). Yet, physical abuse of children and partner violence are known to have high co-occurrence rates (Appel and Holden 1998; Herrenkohl et al. 2008). Therefore, despite the strengthening evidence of a high prevalence of partner violence, and evidence of wide ranging problems among children raised in partner-violent homes, the lack of control for co-occurring child abuse compromises the validity of prior work in the field (Kernic et al. 2003).

### Conceptual Framework: Learned Violence

The role of family violence in the generation of negative consequences is implicated in a number of criminological theories that specify family influences on behavior. These include social learning/differential association perspectives, social control perspectives, and strain/stress theories (Simons et al. 2004). Historically, the dominant conceptual

framework drew upon social learning theory, and what has come to be called the “cycle of violence” (Widom 1989b). Exposure to violence teaches children that controlling others through coercion and violence is normal and acceptable, and indeed using such strategies helps people reach their goals. Direct imitation is complemented by internalization of principles that are used to guide behavior (Bandura 1977). The resulting behavior is applied in general rather than specific situations—thus family violence that begets subsequent violence in the next generation is likely to be embedded in a more general antisocial orientation. Straus and Gelles (1979), for example, posited that exposure to harsh physical parenting or witnessing inter-parental violence is likely to lead to a continuing cycle of violence in the family, but also that learning violence within a family context strengthens a generalized cultural and societal orientation to violent and coercive behavior. Social learning within the family context has been emphasized and developed in other developmental theory models that specify the influence of the family in conjunction with other contexts with which children come into contact, notably school and peer associations. Among such models are coercion theory (Reid et al. 2002), the social development model (Herrenkohl et al. 2008), and hostile attribution bias theory (Dodge 2006).

The “cycle of violence” perspective is also consistent with interactional and life course theories of the development on antisocial behavior. The life course perspective involves age-related trajectories of development that are subject to transitions and turning points as new conditions and criminogenic experiences occur (Farrington 2003). The perspective provides a conceptual model to understand short-term and long-term consequences of risk processes related to antisocial trajectories (e.g., Capaldi and Shortt 2003; Ireland et al. 2002; Thornberry and Krohn 2001; Thornberry et al. 2003a).

The adolescent life stage is of particular interest since this is a time when developmental turbulence promotes engagement in high-risk behaviors and associations (DiClemente et al. 1996; Elliott et al. 2002) which then reinforce factors that promote antisocial behavior, which may include relatively high levels of family violence (Rutter et al. 1998; Smith et al. 2000; Thornberry and Krohn 2005). The early adult segment of the life course, also referred to as emerging adulthood, (Arnett 2000) is important as well because transitions and turning points in early adulthood allow, even among those with histories of severe risk for antisocial behavior, more conventional lifestyles. Alternatively, patterns of adolescent antisocial behavior may deepen as their consequences become more entrenched in an antisocial young adult life course (Laub and Sampson 2003; Stewart et al. 2008).

## Short and Long Term Consequences of Exposure to Intimate Partner Violence

Studies of children living in partner-violent homes have become increasingly sophisticated since the first descriptive studies of children of women in shelter populations. Basically, three types of studies have illuminated the complex issue of the impact of residing in a partner-violent home: short-term consequences on specialized samples; retrospective studies on specialized samples that require recalling violence in the home during childhood and adolescence; and longitudinal, prospective studies.

### Short-Term Consequences

The best known set of studies concern mainly short-term effects on children known to have been exposed to intimate partner violence, such as children in women’s shelters (e.g., Davis and Carlson 1987; Hughes and Barad 1983; Jouriles et al. 1987). Frequently observed problems in children exposed to intimate partner violence are aggression and antisocial behavior (Kolbo et al. 1996; Langhinrichsen-Rohling and Neidig 1995; Sternberg et al. 1993), although internalizing problems and cognitive problems are also documented (e.g., Boney-McCoy and Finkelhor 1995; Edleson 1999; Maker et al. 1998; Rossmann 2001). A meta-analysis by Kitzmann et al. (2003), which included 118 studies of psychosocial outcomes of exposed children, identified a consistent and significant association between exposure and child problems including externalizing or behavioral problems. However, although some of the studies reviewed involved control group comparisons, studies rarely utilized population-based samples, and few studies followed exposed children prospectively into adulthood (Carlson 2000; Kitzmann et al. 2003; Wekerle and Wall 2002).

### Retrospective Studies

A largely separate set of studies investigates the intergenerational continuity of partner violence between exposed children and their later intimate violence as adults. Generally, there is an assumption in this literature that living in a partner-violent home during childhood or adolescence predicts IPV in adulthood among the exposed children (e.g., Wolf and Foshee 2003).

Early studies on this topic involved retrospective assessment of selected clinical samples of adults—mainly male perpetrators of domestic violence—and their histories of childhood domestic violence exposure (Dutton and Holtzworth-Monroe 1997; Ehrensaft et al. 2003; Hotaling and Sugarman 1986). Domestic violence exposure has been disproportionately found in adults with antisocial behavior

or who engage in partner violence (e.g., Buehler et al. 1997; Carlson 2000; Edleson 1999; Graham-Bermann 1998; Margolin 1998). However, these samples are selected on the basis of adult problems which tends to inflate associations between EIPV during childhood or adolescence and subsequent partner violence in adulthood (Stith et al. 2000).

Stith et al. (2000) focused on partner violence as a specific outcome of living in a partner-violent family. Their meta-analysis inventoried published and unpublished studies over a 20-year period until 1997. Overall, being raised in a partner-violent home was significantly related to perpetration of dating violence in adulthood, but the relationship was rather weak, especially in community samples (Stith et al. 2000). Moreover, no studies reviewed by Stith et al. (2000) were prospective. More recently, however, longitudinal data is emerging on antisocial outcomes, including participants' own partner violence, of adults raised in partner-violent homes. It should be noted that measurement of intimate partner violence is dominated by the Conflict Tactics Scales (CTS) and a revised version (CTS2), developed by Straus and Gelles (1990).

#### Longitudinal Studies—Adolescent Outcomes

McCabe et al. (2005) tested the hypothesis that exposure to different types of violence (child maltreatment, community violence and partner violence) contribute independently to prediction of conduct problems over a two year period when participants were aged 12–17 ( $n = 423$ ). The study found that, although community violence and child maltreatment predicted adolescent conduct problems, EIPV (assessed with the CTS2) was unrelated to either conduct disorder or externalizing problems when other forms of violence and socio-demographic factors were also considered.

Kernic et al. (2003) investigated the relationship between children's EIPV and externalizing and internalizing behavior problems assessed by Achenbach's Child Behavior Checklist (CBCL, Achenbach 1991) in adolescence. This group comparison study looked at 2–17 year old children ( $n = 167$ ) of women who had partners with criminal justice records of domestic violence. The rates of behavior problems among the children living in these partner-violent homes were assessed during an interview two years later and compared to rates in CBCL normative samples. Risk of behavior problem outcomes was assessed in the EIPV group among those with and without a child maltreatment history. Exposed children, both with and without maltreatment reports, had elevated rates of externalizing behaviors compared to the CBCL normative sample, controlling for age and sex.

Yates et al. (2003) used prospective longitudinal data from the Minnesota parent-child project to clarify the role

of EIPV on internalizing and externalizing problems in adolescence. A partner violence rating scale was completed by interviewers in preschool and middle childhood based on interviews with mothers after a wide-ranging review of life stressors. The analysis controlled for child maltreatment, poverty, and life stress. Child-reported outcomes at age 16 included internalizing and externalizing behavior. Pre-school EIPV (but not childhood exposure) contributed to externalizing problems for boys in adolescence, and internalizing problems for girls over and above the contribution of child maltreatment and other stressors.

McCloskey, Herrera and colleagues have conducted a series of studies based on a sample of women in which battered women were oversampled. Face to face interviews with mothers were conducted when children were on average nine years old. Mothers and children were interviewed at time 1 using a shortened form of the CTS focusing on severe forms of violence and were also asked about parallel categories of abuse directed at the child. At time 2, about 5 years later when children were approximately age 15, juvenile court records on 299 children were collected. Controlling for covariates including child abuse, findings indicated that children from partner-violent families were twice as likely to have a court record as those without. They were also more likely to be referred for violent offenses, including violence directed at parents (Herrera and McCloskey 2001). These data were also used to examine the impact of EIPV on aggression in different relationships including peer aggression, dating violence, and violence to parents (McCloskey and Lichter 2003). They found that children from partner-violent homes were at risk for becoming aggressive with peers and parents, but not with dating partners.

#### Longitudinal Studies—Early Adulthood Outcomes

A few longitudinal studies have published results on the consequences of being raised in a partner-violent family and subsequent risk of partner violence in early adulthood. The studies use a variety of measures to assess both exposure to partner violence during adolescence and subsequent partner violence in adulthood.

Ehrensaft et al. (2003) utilizing a community sample followed-up over 20 years found that predominantly retrospectively reported exposure to parent fighting (assessed by one item) during childhood predicted increased perpetration of violence and violent victimization in later relationships, after possible confounding variables including child maltreatment reports and adolescent antisocial behavior were controlled. McNeal and Amato (1998) used a single item of parent reported violence when children were between 11 and 19. Twelve years later the adult children (median age 23) reported on their own outcomes

in adulthood, including violence in their own relationships. A significant relationship was found between EIPV during childhood and subsequent partner violence, even after several relevant factors were controlled, including abusive parental behavior towards children.

Contrary to these findings, Simons et al. (1998) found, after controlling for harsh parenting, that domestic violence exposure assessed in adolescence was unrelated to violence towards an intimate partner in early adulthood. Similarly, Capaldi and Clark (1998) did not find EIPV was linked to partner violence in young adulthood in their sample, when dysfunctional parenting, as well as early antisocial behavior were controlled. Fergusson and colleagues, using Christchurch Health and Development Study data, used retrospective information on EIPV from participants in late adolescence (at age 18), to predict self-reported crime and partner violence data among late adolescent and young adult participants (Fergusson et al. 2006). A large range of other risk factors were controlled including child physical and sexual abuse. When outcomes at age 18 were considered, (that is, contemporaneous with the retrospective measure of partner violence exposure) father-initiated violence was associated with conduct problems and offending (Fergusson and Horwood 1998). Exposure to inter-parental violence was not, however, related to violent crime or partner violence in adult relationships when assessed at age 25 (Fergusson et al. 2006). The conclusion drawn was that the impact of EIPV was overstated and general contextual risk was more important.

## Summary

Conceptually, several theories predict that developmental turbulence may result from EIPV during childhood and adolescence, and social learning theories in particular suggest that patterns of observed and experienced violent interactions may be learned in the home and expressed in antisocial interactions in other contexts. Early literature suggested that conduct problems, delinquency and aggression, including in partner relationships, were associated with exposure to partner violence. However, studies were fraught with well-documented problems, most notably lack of prospective designs and measures, absence of multiple reporters and narrow measurement strategies. Lack of control for associated contextual risks, and especially for child abuse has also been notable (e.g. Herrenkohl et al. 2008; Jouriles et al. 2001; Margolin and Gordis 2000; Yates et al. 2003). Although measures of both forms of family violence are increasingly incorporated, findings are mixed. Some analyses have suggested that EIPV is not related to antisocial outcomes once child maltreatment or harsh punishment is controlled (e.g., Simons et al. 1998; Fergusson et al. 2006), whereas others

find an impact of EIPV over and above these other factors (Herrera and McCloskey 2001). Differences in measurement and samples across studies may account for these inconsistencies.

Studies conducted in the last decade have increasingly included longitudinal designs and population-based samples, and have adjusted for many risks known to be associated with EIPV. However, our understanding of the developmental impact of exposure to partner violence is still quite rudimentary. Few studies contain multiple dimensions of negative outcomes, particularly across different reporters. Externalizing problems remain the most commonly assessed outcome, but are often assessed through maternal reports and the relationship of externalizing behaviors to criminal behavior and violence is unclear. Adult partner violence is not generally studied together with other outcomes, although partner violence is linked with antisociality and psychopathology in adult studies (Dutton and Holtzworth-Monroe 1997; Ehrensaft et al. 2003; Hotaling and Sugarman 1986). Studies following participants into adulthood and assessing longer-term EIPV impact are also lacking in the literature. Possibly EIPV in adolescence is a short-term risk factor for disrupted development that does not endure into adulthood. Some research has suggested that maltreatment during adolescence may be a particular risk factor for failure in healthy transitions to adulthood, thus perpetuating developmental risk into adult roles and relationships (Smith et al. 2005).

## The Current Study

The current study employs data from a longitudinal study with several assets that can advance our understanding of consequences of living in a partner-violent home. We investigate the ramifications of living in a home with severe parent violence in addition to the more commonly assessed ever-violent measure. Confounding risks are controlled, including physical child abuse. Several indicators of aggression and antisocial behavior are available, enabling a broad assessment of negative outcomes. Measures come from several sources that are independent of the source of the EIPV measure. Additionally, we extend our analysis of outcomes into adulthood, and include aggression in early adult partner relationships.

The general aim of this research is to investigate antisocial consequences of adolescent exposure to inter-parental violence during participants' adolescence and emerging adulthood. We expect generally that we will find that EIPV does pose a developmental risk for negative outcomes. More specifically, we hypothesize that the distribution of partner-violent homes and severe partner-

violent homes in an urban community sample will be at the high end of the reported range. Second, we expect that EIPV will predict enhanced risk of offspring contemporaneous antisocial behaviors in adolescence after controlling for demographic and contextual risk as well as child physical abuse. Third, we expect that exposure to more severe violence will be particularly consequential for development. The fourth issue for research is posed as an open question: what is the longer-term impact of EIPV in young adulthood? There are reasons to expect that EIPV may have, at older ages, an attenuated impact because of loss of the recency effect, and recovery over time. Alternately, patterns of antisocial reactions to EIPV may be consolidated as their consequences become more entrenched in the life course.

## Methods

Data are from the Rochester Youth Development Study (RYDS). The RYDS was designed to investigate the development of delinquency/crime and other problem behaviors in a representative urban community sample. The study design and sampling procedures are detailed elsewhere and are summarized here (e.g., Smith and Thornberry 1995; Thornberry et al. 2003b). The RYDS is a multi-wave panel study of youth (generation 2 or G2) and their primary caretakers, generally the mother (generation 1 or G1). The participants were initially interviewed every six months, then at three annual interviews in G2 early adulthood, and then at two annual interviews in G2 adulthood. Data were collected in three phases: during the first phase, G2 participants were on average aged 14 to 18 years old (waves 1 through 9). During the second phase, G2 participants were on average 21 to 23 years old (waves 10 through 12), and during the third phase of data collection participants were on average 29 to 31 years old (waves 13 and 14). Measures used here are from youth and parent interviews in phase 1 and 2 and from official agency data. The Institutional Review Board of the University at Albany has continually monitored and approved the RYDS since data collection began in 1988.

The initial sample of 1,000 adolescents was selected from the population of 7th and 8th graders (average age 14) in the Rochester, NY, public schools in 1988. High-risk youth were oversampled on male gender and on residence in high-crime areas of the city (Krohn and Thornberry 1999). The original panel included 68% African American, 17% Hispanic, and 15% White participants. The original sample was also 72.9% male, and 27.1% female. At the end of phase 2, 85% (846) of the initial 1,000 G2 participants had been re-interviewed. A comparison of those retained and not retained at the end of phase 2 revealed no

significant differences in demographic characteristics and delinquency between the original panel and those retained (Thornberry et al. 2003b).

## Predictor Variables

### *G1 Intimate Partner Violence*

Intimate partner violence among G1 parents or parent figures was assessed at five phase 1 six-month intervals (waves 3 through 7) during G2 mid-adolescence using the Conflict Tactics Scale (CTS, Straus 1979). The CTS assesses perpetration and victimization as reported by the primary caretaker, who was the mother or mother figure in the household the vast majority of the time (95%). The CTS contains questions on the occurrence and frequency of each of 19 tactics employed during partner conflict that range from discussing issues calmly to use of a weapon (Straus 1990). Two CTS measures of the prevalence of violence are used in these analyses as predictor variables—G1 physical violence and G1 severe physical violence. The total physical violence subscale is comprised of nine items (1) threw something at partner, (2) pushed, grabbed or shoved partner, (3) slapped partner, (4) kicked, bit or hit partner, (5) hit partner with something, (6) beat up partner, (7) choked partner, (8) threatened to use a weapon against partner, and (9) actually used a weapon on partner. The severe physical violence subscale is based upon the last six items of the total physical violence subscale (Cronbach's alpha for each CTS violence scale—waves 3 through 7—before the data were imputed ranged from .81 to .89 for the physical violence measures and from .79 to .85 for the severe physical violence measures). Classification of severe violence is consistent with a number of studies of the CTS (e.g., McDonald et al. 2006), and denotes acts most likely to result in injury. Both the total and the severe physical violence measure combine perpetration and victimization as reported by the G1 caretaker given the accumulating research in community samples, which indicates that much IPV is reciprocal rather than one-sided (e.g., Capaldi, et al. 2007). An affirmative response to any one of the nine items across the five waves of data collection indicates the presence of intimate partner violence (IPV). An affirmative response to any of the severe physical items indicates the presence of severe intimate partner violence (SIPV). In preliminary analysis conducted to isolate a measure that would capture both frequent and severe inter-parental violence, we found that the group with severe violence was also the group with the most frequent violence. Therefore, the prevalence measure of severe physical violence captures not only extreme violence but also those reporting frequent IPV, as other researchers have also found (Holtzworth-Monroe and Stuart 1994; Straus

et al. 1996). If there was no partner recorded as present in the household at any wave (43.4%), we coded the CTS measures to “0”—no reported partner and thus no partner violence.

### *G2 Physical Abuse*

G2 physical abuse data come from Child Protective Service records in Monroe County, the adolescents’ county of residence at the start of the RYDS. Details on each maltreatment incident, from birth to age 18, were coded according to a classification system developed by Cicchetti and Barnett (1991), which has shown good reliability and validity both with other data (Barnett et al. 1993) and within the RYDS (Smith and Thornberry 1995). We use a dichotomous measure of any substantiated physical abuse to assess the effects of growing up in a partner-violent family net of any physical abuse directed at G2.

### *Additional Controls*

Five control variables are included in multivariate analyses since they are related to both violence in the family and/or externalizing behaviors, and their effects have typically been controlled in previous studies (e.g., Smith and Thornberry 1995; Yates et al. 2003). Race/ethnicity is a three category variable that is dummy coded for White, African American and Hispanic. Gender is a binary variable, with females coded as 1. Chronic family poverty measures the number of waves in poverty in the first four waves when G2 respondents were approximately 14 to 16 years old. Any one of three indicators was used to measure poverty: income below the federal poverty line, unemployment, or receipt of public assistance. Waves spent in poverty ranged from 0 to 4. If a family was in poverty for at least three waves they are classified as living in chronic poverty. Family transitions count the number of transitions in caregivers during phase 1. Families that experienced three or more caregiver transitions during phase 1 data collection are identified as in transition. G1 educational attainment assesses whether or not G1 completed high school.

### *Outcome Variables*

The data contain several indicators of adolescent antisocial behavior—arrest as reported by official police records, externalizing behaviors as reported by the G1 caregiver, and delinquency and violence as self-reported by G2. This strategy results in multiple reporters of antisocial behavior during adolescence. In each instance, our measure of problematic adolescent behavior is constructed to parallel

the same timeframe from which the measures of G1 IPV were generated—wave 3 through wave 7. As a result, any significant relationship identified between G1 IPV measures and adolescent problem behaviors reflects a contemporaneous effect.

Phase 2 data are used to assess early adulthood behavioral outcomes. Arrest is an official report of arrest during early adulthood. Self-reported crime and self-reported violent crime are quite similar to the self-reported adolescent measures. In addition to behaviors directed largely at strangers, in early adulthood we also have CTS measures of G2 IPV and severe IPV. Finally, in early adulthood, G1 was asked about physical violence in relation to G2—did the G2-G1 relationship result in physical violence during the past year? This information was collected at only one wave in phase 2, but provides an important assessment from a third reporter—the primary caregiver. Therefore, in both mid-adolescence and early adulthood we have three different reporters on outcomes of interest: official agency data, G2 self-reports, and G1 reports. Each early adulthood outcome is measured several years after the measure of G1 IPV reported when G2 was in mid-adolescence, and as a result, any significant relationships between G1 IPV and G2 outcomes in early adulthood are longitudinal.

### *Arrest*

The measures of arrest are based on the number of times each subject had an arrest or an official contact with the police as a juvenile, or an arrest as an adult. Official contacts include cases in which the juvenile is suspected of committing a delinquent act, is “warned and released” by the police, and an official record of the event is maintained. It does not include informal contacts, ID checks or events where the youth is merely questioned by the police.

Contact and arrest data were collected from the files of the Rochester Police Department, but cover all police agencies in Monroe County, as the Rochester Police Department maintains a countywide registry. We also searched the files of the New York State Division of Criminal Justice Services to identify arrests outside of Monroe County. Since arrest dates are known, we can parallel the self-report periods utilized here by constructing a measure of official delinquency during adolescence (waves 3–7) and during early adulthood (waves 10–12). For ease of presentation, we refer to official offending measures as arrests. The measure of arrest is coded “1” if the participant was arrested during adolescence and coded “0” otherwise, and the same strategy is used in early adulthood.

### *Self-reported General Crime*

A set of self-reported delinquency/crime questions asks whether or not the respondent has committed a particular offense in the interval between the last and current interview and, if so, the frequency of those behaviors. Positive responses are followed by questions that describe the nature of the most serious (or only) incident and based on this information, coders eliminate trivial transgressions that are not equivalent to offenses. Indexes of self-reported offending have been used in many publications and their validity is well established (Thornberry et al. 2003b).

A cumulative prevalence index was constructed for mid-adolescence and another for early adulthood. The general crime index includes 32 offenses (26 in early adulthood because status offenses are dropped) ranging in seriousness from minor offenses like public rowdiness and petty theft to serious offenses like robbery and assault with a deadly weapon. Because both the adolescent and the early adulthood measures of self-reported crime are skewed, dichotomous constructs are created where a “1” represents any self-reported criminal involvement and a “0” represents no self-reported criminal involvement.

### *Self-reported Violent Crime*

The violent crime index is a subscale of the general crime index, which contains six questions about violent interactions with others, including gang fights, robbery, and assault. Cumulative prevalence measures were constructed, again because of the skewness of the continuous constructs, for mid-adolescence and early adulthood.

### *Adolescent Externalizing Behaviors*

The Child Behavior Checklist (CBCL) identifies syndromes of problem behaviors that occur in childhood and adolescence (Achenbach and Edelbrock 1979). The RYDS used a shortened interview version consisting of 45 items developed by Lizotte et al. (1992) and the focus here is on the externalizing subscale. Externalizing items include behaviors directed outwardly like “stolen outside of the home,” “restless, hyperactive,” and “destroys things.” These items were asked of the G2 caregiver during mid-adolescence (waves 3 through 7, Cronbach’s alpha ranged from .91 to .93). To isolate those at highest risk, the externalizing scale at each of the available waves was dichotomized at one standard deviation above the mean (about 15% of the sample at each wave) and then a cumulative prevalence measure was created for mid-adolescence. This procedure has been used in other studies when using the RYDS version of the CBCL (e.g., Thornberry et al. 2001), and by other longitudinal studies utilizing the CBCL (Bauer et al. 2006).

### *G2 IPV in Early Adulthood*

At each of the phase 2 annual waves of data collection in early adulthood (waves 10 through 12), the G2 participants were asked about partner violence among cohabiting and stable dating partners using the CTS (Cronbach’s alpha ranged from .90 to .91 for the G2 physical violence scales and from .80 to .83 for the G2 severe physical violence scales). Paralleling the G1 measurement strategy, we created two binary measures of G2 IPV during early adulthood—any G2 IPV and any G2 severe IPV.

### *G2-G1 Violence in Early Adulthood*

In wave 12 (phase 2), each primary caregiver was given the CTS in the context of their interaction with G2. Each caregiver was asked whether in the past year she (vast majority of interviewees) had perpetrated physical violence against G2. Caregivers were also asked whether G2 had perpetrated physical violence against them. This is a unique measure of violence in early adulthood, which we found in very few other published studies (Cronbach’s alpha of .85). Paralleling the other measures derived from the CTS, any reported G2-G1 violence was coded “1” while the absence of any reported G2-G1 violence was coded “0”.

## **Results**

Logistic regression is used to estimate the relationship between living in a partner-violent family during adolescence and contemporary behavioral outcomes as well as antisocial outcomes during early adulthood. First, a series of bivariate logistic regression equations are estimated to examine the relationship between living in a partner-violent family and negative outcomes. Then, a series of multivariate logistic equations are estimated to statistically control for possible covariates, including G2 experiences of physical abuse. To address the missing data for these analyses, we created 20 imputed data sets, using the MCMC method in SAS PROC MI, and then combined their results.<sup>1</sup> Analyses are conducted on a total of 929 participants and their primary caregiver using logistic regression and SAS PROC MIANALYZE. The proportion of missing data points that were imputed varies across the variables included in the analyses. The average percentage of missing data points across all variables in this analysis is

<sup>1</sup> Following Allison’s (2001) recommendation, data were imputed for the subsample of males and females separately. Once the separate imputations were completed, the two datasets were re-joined. This strategy allows for considering gender as a moderator effect with a product term.



slightly less than 7%. However, the percent missing ranged from approximately 16% on the G1 wave 7 measure of IPV and severe IPV, and the G1 wave 7 measure of G2 externalizing behavior, to less than 1% missing on the self-reported cumulative measures of adolescent crime and violence. Several variables had no missing data including G2 gender, race/ethnicity, and the measure of physical abuse.

**Describing the Sample**

For these analyses, 15.5% of the sample is White, 67.8% is African American, and 16.7% is Hispanic (White is the reference category in the multivariate analyses). About 72.7% of the G2 sample is male, and about 45.6% of the sample was living in chronic poverty during early adolescence. About 16% of the sample experienced three or more caregiver changes during adolescence, and about 40% of the G1 caregivers did not complete high school or its equivalent (see Table 1).

**Table 1** Distribution of outcomes, control variables and related predictors

	%	n
<i>G1 intimate partner violence</i>		
IPV	25.53	929
Severe IPV	14.66	929
<i>G2 mid-adolescent outcomes</i>		
Arrest	31.77	929
Externalizing behaviors	32.31	929
Self-reported delinquency	65.07	929
Self-reported violence	52.65	929
<i>G2 early adult outcomes</i>		
Arrest	35.33	929
IPV	48.11	929
Severe IPV	33.38	929
G2-G1 physical violence	11.89	929
Self-reported crime	67.36	929
Self-reported violence	31.10	929
<i>Control variables</i>		
Gender		
Male	72.66	929
Female	27.34	929
Race		
African American	67.81	929
Hispanic	16.68	929
White	15.50	929
Caregiver transitions	15.79	929
Family poverty	45.57	929
G1 high school completed	60.03	929
G2 CPS physical abuse	7.97	929

**Predictor Variables**

The two primary variables of interest are the prevalence of G1 intimate partner violence (IPV) and the prevalence of G1 severe IPV. Overall, 25.5% of the G1 respondents reported either perpetration or victimization of partner physical violence during the G2 mid-adolescent years. In addition, about 14.7% of the G1 respondents reported severe physical partner violence during the G2 adolescent years. These prevalence estimates are quite similar to those recently presented by McDonald et al. (2006). The other dimension of family violence, physical abuse of G2, as assessed by CPS records, indicates that about 8% of the G2 respondents experienced at least one substantiated incident of physical abuse.

**Outcome Variables**

Overall, about 32% of the sample had an arrest during mid-adolescence, and about 35% had an arrest during early adulthood. During adolescence, 65.1% of the respondents reported at least one delinquent offense, and during early adulthood, 67.4% reported at least one criminal offense. Violence was also quite pervasive with over half the sample self-reporting violence (52.6%) during mid-adolescence and slightly less than one-third self-reporting violence (31.1%) during early adulthood. About 32% of the sample scored at least one standard deviation above the externalizing behaviors mean at some point during mid-adolescence, as reported by G1. Overall, about 76% of G2 respondents reported being in a relationship sometime during early adulthood, and 48.1% reported partner physical violence during early adulthood; 33.4% reported severe partner physical violence during the same time-frame. While these levels of G2 partner violence appear high, Linder and Collins (2005) report comparable levels of violence among young couples (45% reported violence at age 21 and again at age 23). Furthermore, the distribution of partner violence tends to cluster among younger unmarried couples, among urban dwellers, as well as among ethnic/racial minorities (e.g., Field and Caetano 2005; Kitzmann et al. 2003; Rennison and Welchans 2000). Finally, G1 during phase 2 reported either perpetration of violence or victimization from violence during interactions with G2. Overall, 11.9% of the G1 caregivers either were victims of or perpetrated physical violence in interactions with G2.

**Bivariate Results**

Table 2 presents the bivariate results from a series of logistic regression equations where the independent variables are G1 intimate partner violence (row 1) and G1

**Table 2** Bivariate association between living in a partner-violent family and mid-adolescent and early adulthood negative outcomes (odds ratios)

	G2 mid-adolescence				G2 early adulthood					
	Arrest	General crime	Violent crime	Externalizing behavior	Arrest	General crime	Violent crime	Intimate partner violence	Severe intimate partner violence	G2-G1 physical violence
G1 intimate partner violence	1.27	1.64**	1.70**	1.60**	1.11	1.29	1.47*	1.34	1.21	1.21
G1 severe intimate partner violence	1.25	1.65*	1.71*	1.61*	1.16	1.53 <sup>†</sup>	1.77**	1.66*	1.66*	1.25

\*  $p < .05$ , \*\*  $p < .01$ , <sup>†</sup>  $< .10$ 

severe intimate partner violence (row 2). The outcomes under consideration appear in the columns. The left panel of Table 2 considers contemporaneous antisocial behaviors that are co-occurring during the same developmental timeframe as the measures of G1 partner violence. The right panel of Table 2 considers the longitudinal relationship between G1 partner violence that occurs during G2 mid-adolescence and subsequent G2 antisocial behaviors in early adulthood. The coefficients presented in the table are odds-ratios. The odds ratio provides an estimate of how likely it is for the outcome to be present among those with a particular characteristic (i.e., partner-violent family) relative to those without the characteristic.

Results indicate that caregiver IPV and SIPV do not increase the risk for G2 arrest during mid-adolescence. However, both CTS measures of G1 IPV increase the risk of G2 externalizing behaviors, self-reported general crime, and self-reported violent crime. For example, the risk of violent crime in mid-adolescence is 1.70 times greater if the adolescent resides in a partner-violent family. Notably, the relationship between SIPV and mid-adolescent outcomes appears fairly consistent with slightly greater risk for antisocial behaviors among those residing in a SIPV family.

When the focus shifts from mid-adolescent outcomes to early adulthood outcomes, the risk apparently emanating from residing in a partner-violent family during mid-adolescence dissipates. In G2 early adulthood, there is no relationship between G1 IPV and antisocial behavior with the exception of self-reported violence, and there is no relationship between G1 IPV and G2 relationship violence. G1 IPV is unrelated to risk for arrest, general crime, intimate partner violence, severe intimate partner violence, and G2-G1 physical violence. It would appear, at least, from the first row of data in panel two, that residing in a partner-violent family during mid-adolescence may be behaviorally disruptive during mid-adolescence, but the negative behavioral consequences somewhat fade as G2 moves into early adulthood.

However, the story is not the same when considering G1 SIPV. In those families where there was SIPV, the negative consequences of being raised in such an environment apparently persist into early adulthood. Those mid-adolescents raised in severe partner-violent families are at increased risk for not only relationship violence, but are also at increased risk for engaging in violent crime.

#### Multivariate Results

The next issue is whether the bivariate results presented in Table 2 persist after several covariates are entered into the logistic regression equations. Of particular interest is exploring whether or not exposure to IPV or SIPV independently increases the risk of externalizing behaviors after controlling for G2 substantiated physical abuse. The results presented in Table 3 include the estimated odds ratios for each relationship between G1 partner violence and outcomes in mid-adolescence and early adulthood controlling for possible confounding effects. In addition, Table 3 presents the relationship between any substantiated physical abuse and negative outcomes in mid-adolescence and early adulthood.

Overall, results in the multivariate analyses are quite consistent with results obtained from the bivariate analyses. During mid-adolescence, living in a partner-violent home increases the risk of general crime, violent crime and externalizing behaviors. A comparison between the bivariate and multivariate results shows a modest decrease in the obtained odds ratios. Substantiated physical abuse, in each estimated equation increases the risk of mid-adolescent antisocial behavior (violent crime  $p < .10$ ), including the risk for arrest. Shifting the independent variable from any G1 IPV to any G1 severe IPV results in a similar pattern of results during mid-adolescence compared with the bivariate results, with the exception of general crime ( $p < .10$ ). Caregiver severe partner violence is related to self-reported violent crime and externalizing behavior in mid-

**Table 3** Multivariate association between living in a partner-violent family and mid-adolescent and early adulthood negative outcomes (odds ratios)

	G2 mid-adolescence				G2 early adulthood					
	Arrest	General crime	Violent crime	Externalizing behavior	Arrest	General crime	Violent crime	Intimate partner violence	Severe intimate partner violence	G2-G1 physical violence
G1 intimate partner violence	1.41 <sup>†</sup>	1.58*	1.65**	1.53*	1.13	1.15	1.42 <sup>†</sup>	1.35	1.28	1.27
Any substantiated physical abuse	2.06**	2.54**	1.59 <sup>†</sup>	1.92*	1.56 <sup>†</sup>	1.39	1.53	1.44	1.41	0.86
G1 severe intimate partner violence	1.25	1.53 <sup>†</sup>	1.59*	1.52*	1.16	1.42	1.68*	1.65*	1.72*	1.25
Any substantiated physical abuse	2.10**	2.61**	1.63 <sup>†</sup>	1.95*	1.56 <sup>†</sup>	1.38	1.53	1.44	1.39	0.87

\*  $p < .05$ , \*\*  $p < .01$ , <sup>†</sup>  $< .10$

Variables included as controls: gender, race/ethnicity, chronic family poverty, multiple family transitions, and caregiver high school completion

adolescence. Again, in these estimated equations the presence of physical abuse is also significantly related (marginally related to violent crime), in the expected direction, to each of the mid-adolescent outcomes.

Focusing on the right panel of Table 3, the outcomes of interest shift from mid-adolescence to early adulthood. Across the board, although contemporaneous effects are in evidence for the measures of any caregiver partner violence and physical abuse of G2, the negative outcomes appear to fade with time. Paralleling results presented in Table 2, being raised in a partner-violent family in mid-adolescence is unrelated to arrest, self-reported crime, or self-reported violent crime in early adulthood. In addition, physical abuse experienced prior to age 18 is also unrelated to each of these outcomes in early adulthood. When considering G2 relationship violence in early adulthood (both any physical violence and severe physical violence), being raised in a partner-violent family does not increase the risk of G2 relationship violence in early adulthood.

The bottom panel replaces G1 IPV with G1 severe IPV as the main predictor variable. This measure captures severe violence as well as high frequency violence among caregiver partners. Results reveal that being raised in a partner-violent family significantly increases the risk of both antisocial behavior and relationship violence in early adulthood. Those raised in partner-violent homes where the violence is considered severe are at increased risk for violent crime (OR = 1.68), as well as violent partner interactions during emerging adulthood (OR = 1.65) and severe physical violence (OR = 1.72). Physical abuse, after taking into account G1 severe partner violence and other covariates, is unrelated to crime in early adulthood, and unrelated to G2 partner violence.

Finally, because some research has found gender differences on the impact of EIPV (e.g., Yates et al. 2003), we consider the possibility that the identified relationships between being raised in a partner-violent family and outcomes might be moderated by G2 gender. We used two approaches to explore the possibility of an interaction. First, product terms (G1 IPV × G2 gender; G1 SIPV × G2 gender) were entered into each of the multiple logistic regression equations presented in Table 3. None of the product terms was significant ( $p < .05$ ).<sup>2</sup> In addition, we stratified the sample by gender and re-estimated all equations in Table 3 for males only and females only. A statistical test to determine whether the coefficients of interest were significantly different for males and females (Liao 2004) indicated that none of the differences between the male and female EIPV coefficients achieved statistical significance ( $p < .05$ ), confirming the results obtained using the product terms on the whole sample.

However, although about 27% of males and about 23% of females were raised in partner-violent homes, only about 6% of the total sample was female and raised in a partner-violent home. The same issue is true for any severe violence. About 15% of the males and about 12% of the females were exposed to severe family violence during adolescence, but only 3% of the entire sample was female and raised in a partner-violent home with severe violence. Therefore, while there is no support for gender as a moderator in these data, caution must be advised because of the

<sup>2</sup> The interaction analysis with product terms was also replicated using OLS to check for multicollinearity between the interaction term and the lower order effects. Multicollinearity was not a problem, and OLS replicated the logistic regression null results.

small number of females in the sample who were exposed to family violence.

## Discussion

We examined four issues in this study. The extent of partner violence exposure among the youth in this urban community sample was the first. Indeed, a quarter of the sample was raised in a home where there was at least some violence between caretaking adults during mid-adolescence, and 15% were in homes where severe violence of the kind likely to cause injury occurred. Both mother figures and father figures were perpetrators and prior studies have informed us that maternal and mutual violence is actually quite common, contributing to high rates of overall violence exposure (Ehrensaft 2003; McDonald et al. 2006; Morse 1995).

The second issue we addressed was the concurrent relationship between living in a partner-violent home in adolescence and a range of antisocial behaviors in adolescence after controlling for factors that may influence both partner violence and antisocial behavior. Partner violence exposure is significantly linked with externalizing behaviors and self-reported violence and general delinquency, and marginally with arrest. It is additionally important to note that the association between living in a partner-violent home and antisocial behavior is maintained even when the impact of child physical abuse is accounted for. This adds somewhat to our understanding of the relationship between living in partner-violent homes and adolescent behavior, since our measures are derived from multiple reporters, cover several arenas of behavior, and look at severity of exposure unlike many other studies. Thus, given the measurement, and sample characteristics, the findings illustrate a robust contemporaneous relationship between living in a partner-violent home during mid-adolescence and antisocial behavior during the same timeframe. However, the most distinctive contribution of our study pertains to the final two issues we examined: whether adolescent exposure predicts young adult behavior, and the role of severe violence exposure.

The review of the existing and limited longitudinal literature was equivocal about long-term effects of residing in a partner-violent home during childhood or adolescence. We were able to address several persistent shortcomings of prior studies, including lack of truly longitudinal relationships. Although we find a fading impact of living in a violent home in general (and also of physical abuse experiences), exposure to a severe level of partner violence continues to exert an impact on the life course, affecting violent crime, and living in a violent relationship as an adult. Our research also supports the notion that there are commonalities between adult crime and violence and

family violence, supporting the idea of an emerging anti-social orientation (Moffitt et al. 2000; Simons and Johnson 1998).

Thus, we find support for the “cycle of violence” hypothesis in our data. Violent interactions in the community and in relationships as young adults are significantly associated with exposure to severe parental partner violence as an adolescent. Whereas the expectation might have been that the more proximal effect in adolescence might be substantially stronger than the more distal effect on young adult behavior, this expectation was not borne out when exposure to severe partner violence was examined. This contradicts previous studies that have indicated that IPV is not predictive of outcomes when child physical abuse and other risk factors are controlled (e.g., Fergusson et al. 2006). However, findings are consistent with some studies that have shown a unique EIPV impact on negative behavior (e.g., Yates et al. 2003). Adolescent exposure to severe parental violence does predict being in a violent relationship as a young adult some years later, and interestingly, physical child abuse does not appear to exert this predictive impact. This indicates potentially specific learning of power and control tactics (and lack of development of alternative conflict management strategies) within intimate relationships.

Overall, we add to the literature on continuities in partner violence across generations which is relatively unexplored with longitudinal data and with measures from two generations (Stith et al. 2000). Implications for future research include better coordination of research streams (Daro et al. 2004). There is a continued lack of definitional consensus about family violence phenomena, partly because of the interests of different stakeholders including researchers, advocates and the child protection system (Cicchetti and Barnett 1991; Emery and Laumann-Billings 1998). The result is a lack of integration of the knowledge base about the impact that family violence has on child and adolescent development (Finkelhor and Kendall-Tackett 1997).

Developmental criminology stresses the potential link between the timing of experiences of risk and the effect of risk experiences on outcomes (Farrington 2003). We note that the risk experience catalogued here was measured in adolescence. We are not able to assess the role of partner violence exposure earlier in the child’s life course. However, there are some indications in RYDS maltreatment data that adolescent maltreatment is more strongly related to adolescent and adult outcomes than maltreatment occurring earlier in the life course (Smith et al. 2005). Relatedly, this study underlines the importance of increasing knowledge about emerging adulthood and how the transition into adulthood may exacerbate violent tendencies.

Developmental theories suggest several mediators which we did not test directly in this study. Social learning theory has suggested that progression into more troubled

behavior might be propelled by learning aggressive responses especially in relationship to ambiguous or provocative situations (Dodge 2006). Others have suggested that development of a general antisocial orientation is a mediator of the impact of inept as well as violent parenting (Simons et al. 2004; Capaldi and Clark 1998). Evidence that cognitive coping strategies including “not remembering” have an impact on behavioral response is emerging (e.g., Herrenkohl et al. 2003). Still others have expanded on the erosion of warmth and support in families characterized by violence (Margolin 2005; McCloskey et al. 1995). Finally, an important mediator linking exposure to partner violence to early adult negative consequences may be assortative mating that occurs in late adolescence and early adulthood, whereby youth on antisocial trajectories find each other, and thus reinforce antisocial behavior as well as continuities in relationship violence.

In addition to understanding the mechanisms that link being raised in a partner-violent home to negative outcomes, there remain several measurement issues related to exposure to violence during childhood and adolescence. For example, it seems clear that other forms of family dysfunction including substance abuse, mental illness, and criminality in parents (Hartley 2002) are possible co-occurring risk factors that may increase the risk for negative consequences of exposure to family violence. Furthermore, it appears that environmental characteristics including other forms of violence contribute to antisocial outcomes. Also, the impact of cumulative adverse experiences has been addressed in other research groups (e.g., Dong et al. 2004; Finkelhor et al. 2005).

It is premature to consider applied implications from this study partly because any intervention would need to target mediators and moderators of violence experiences. However, it might be said that the evidence that experiences of family violence threaten healthy development is now well established in many studies. Some have called for an increased effort to understand families and communities where multiple risks are rife, and to direct more attention to systems coordination and family support in such families and communities (Daro et al. 2004; Simons et al. 2004; Tolan et al. 2003). In addition, there are interventions for youth exposed to family violence and their families that are under development and showing some success (e.g., Jaffe et al. 1999; Wagar and Rodway 1995). Lastly, programs to address early dating violence are another important route to creating transitions and turning points for youth (Wolfe et al. 2003). It should be noted that, in spite of increasing evidence of long-term risks posed by family violence exposure, by no means do all persons succumb to risk. Many questions remain about the circumstances and pathways that lead to further developmental risk—or away from it—that are ripe for future examination.

Some limitations of our study need to be addressed. We cannot examine gender differences in detail. Some researchers (e.g., Yates et al. 2003) have found gender differences in the impact of parental violence exposure, but evidence about gender differences in response to residing in a partner-violent home is inconclusive (Holden et al. 1998; Kitzmann et al. 2003). Our consideration of gender as a moderator generated null results (results not presented) suggesting that the relationship between exposure to IPV or SIPV and measured outcomes in adolescence and early adulthood are invariant across gender. However, because of the limited number of females in the study, a more definitive answer on this issue awaits samples with a greater number of females. The presence of sexual abuse in particular may exacerbate risk of negative outcomes for girls (Herrera and McCloskey 2001). Although this analysis controls for physical abuse of children, an alternate analysis (not reported) did control for any substantiated maltreatment including sex abuse, and our substantive findings were unaltered. We also recognize that our measure of official physical abuse very likely represents an undercount in the sample (Smith et al. in press), and as a result some who directly experience physical abuse from a caregiver are in the “0” category, which might affect the relationship between physical abuse and outcomes.

We note again that we did not assess partner violence when no stable partners were present, perhaps missing violence in families where ex-partners or transient partners were present. This would however mute the differences between partner violence impact and homes in which partner violence was not reported. Additionally, there was an expansion of the definition of “partner” in the second generation participants to include stable dating partners.

We did not examine violence perpetration as a separate outcome in participants’ family relationships, but instead focused on experiences of either victimization or perpetration. We did this for several reasons. First, mutual partner violence is not uncommon. Second, we wanted to focus on partner violence in the home irrespective of whether the primary caregiver was predominately the perpetrator or the victim. Third, as an artifact of sampling, the majority of respondents for our measures of G1 partner violence were females, while the majority of respondents for our measures of G2 partner violence were males and we wanted to capture the experiences of both genders.

Finally, although this is not a limitation within the stated purpose of our study, it is important to note that there are other suggested outcomes of exposure to partner violence that we do not examine here. Kitzmann et al. (2003), based upon a meta-analysis, suggested that conduct and externalizing outcomes may not be the predominant outcome of exposure to partner violence. Certainly trauma, anxiety and

depression, and substance abuse outcomes have been noted in the outcome research and merit more examination.

Notwithstanding limitations mentioned above, our confidence in our findings and their potential extension is underlined by the many strengths of this data set and design including an urban, multiethnic sample, the use of temporally ordered data, multiple measures from multiple reporters, limited sample attrition, and control for important confounding factors including substantiated child physical abuse. In summary, our results suggest that exposure to severe parental violence during adolescence is indeed consequential for negative outcomes in adulthood. Those who have experienced exposure to severe inter-parental violence during adolescence are likely to carry into adulthood and into future family life an enhanced risk of violent interactions. Our findings support theoretical positions that suggest that violent models are learned, particularly in adolescence, and that such models promote subsequent violent interactions across a range of contexts in adulthood.

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## References

- Achenbach, T. M. (1991). *Manual for the child behavior checklist/4–18 and 1991 profile*. Burlington, VT: University of Vermont.
- Achenbach, T. M., & Edelbrock, C. S. (1979). The child behavior profile: II. Boys aged 12–16 and girls aged 6–11 and 12–16. *Journal of Consulting and Clinical Psychology, 47*, 223–233. doi:10.1037/0022-006X.47.2.223.
- Allison, P. D. (2001). *Missing data: Series on quantitative applications in the social sciences* (Vol. 139). Thousand Oaks, CA: Sage University Press.
- Appel, A. E., & Holden, G. W. (1998). The co-occurrence of spouse and physical child abuse: A review and appraisal. *Journal of Family Psychology, 12*, 578–599. doi:10.1037/0893-3200.12.4.578.
- Arnett, J. J. (2000). Emerging adulthood: A theory of development from the late teens through the twenties. *The American Psychologist, 55*, 469–480. doi:10.1037/0003-066X.55.5.469.
- Bandura, A. (1977). *Social learning theory*. Oxford, England: Prentice-Hall.
- Bardone, A. M., Moffitt, T., Caspi, A., & Dickson, N. (1996). Adult mental health and social outcomes of adolescent girls with depression and conduct disorder. *Development and Psychopathology, 8*, 811–829.
- Barnett, D., Manly, J. T., & Cicchetti, D. (1993). Defining child maltreatment: The interface between policy and research. In D. Cicchetti & S. L. Toth (Eds.), *Child abuse, child development, and social policy*. Norwood, NJ: Ablex.
- Barnett, O., Miller-Perrin, C. L., & Perrin, R. D. (2005). *Family violence across the lifespan: An introduction*. Thousand Oaks, CA: Sage Publications.
- Bauer, N. S., Herrenkohl, T. I., Lozano, P., Rivara, F. P., Hill, K. G., & Hawkins, J. D. (2006). Childhood bullying involvement and exposure to intimate partner violence. *Pediatrics, 118*, 235–242. doi:10.1542/peds.2005-2509.
- Boney-McCoy, S., & Finkelhor, D. (1995). Psychosocial sequelae of violent victimization in a national youth sample. *Journal of Consulting and Clinical Psychology, 63*, 726–736. doi:10.1037/0022-006X.63.5.726.
- Buehler, C., Anthony, C., Krishnakumar, A., Stone, G., Gerard, J., & Pemberton, S. (1997). Interparental conflict and youth problem behaviors: A meta-analysis. *Journal of Child and Family Studies, 6*, 233–247. doi:10.1023/A:1025006909538.
- Capaldi, D. M., & Clark, S. (1998). Prospective family predictors of aggression toward female partners for at-risk young men. *Developmental Psychology, 34*, 1175–1188. doi:10.1037/0012-1649.34.6.1175.
- Capaldi, D. M., Kim, H. K., & Shortt, J. W. (2007). Observed initiation and reciprocity of physical aggression in young, at-risk couples. *Journal of Family Violence, 22*, 101–111. doi:10.1007/s10896-007-9067-1.
- Capaldi, D. M., & Shortt, J. W. (2003). Understanding conduct problems in adolescence from a lifespan perspective. In G. R. Adams & M. D. Berzonsky (Eds.), *Blackwell handbook of adolescence. Blackwell handbooks of developmental psychology*. Malden, MA: Blackwell Publishers.
- Carlson, B. (2000). Children exposed to intimate partner violence: Research findings and implications for intervention. *Trauma, Violence & Abuse, 1*, 321–342. doi:10.1177/152483800001004002.
- Cicchetti, D., & Barnett, D. (1991). Toward the development of a scientific nosology of child maltreatment. In W. Gove & D. Cicchetti (Eds.), *Thinking clearly about psychology: Essays in honor of Paul E. Meehl: Personality and psychopathology* (Vol. 2). Minneapolis, MN: University of Minnesota Press.
- Daro, D., Edleson, J. L., & Pinderhughes, H. (2004). Finding common ground in the study of child maltreatment, youth violence, and adult domestic violence. *Journal of Interpersonal Violence, 19*, 282–298. doi:10.1177/0886260503261151.
- Davis, L. V., & Carlson, B. E. (1987). Observation of spouse abuse: What happens to the children? *Journal of Interpersonal Violence, 2*, 278–291. doi:10.1177/088626087002003004.
- DiClemente, R. J., Hansen, W. B., & Ponton, L. E. (Eds.). (1996). *Handbook of adolescent health risk behavior*. New York: Plenum Press.
- Dodge, K. A. (2006). Translational science in action: Hostile attribution style and the development of aggressive behavior problems. *Development and Psychopathology, 18*, 791–815. doi:10.1017/S0954579406060391.
- Dong, M., Anda, R. F., Felitti, V. J., Dube, S. R., Williamson, D. F., Thompson, T. J., et al. (2004). The interrelatedness of multiple forms of childhood abuse, neglect and household dysfunction. *Child Abuse and Neglect, 28*, 771–784. doi:10.1016/j.chiabu.2004.01.008.
- Dutton, D. G., & Holtzworth-Monroe, A. (1997). The role of early trauma in males who assault their wives. In D. Cicchetti & S. L. Toth (Eds.), *Developmental perspectives on trauma: Theory, research, and intervention*. Rochester, NY: University of Rochester Press.
- Edleson, J. L. (1999). Children's witnessing of adult domestic violence. *Journal of Interpersonal Violence, 14*, 839–870. doi:10.1177/088626099014008004.
- Ehrensaft, M. K., Cohen, P., Brown, J., Smailes, E., Chen, H., & Johnson, J. G. (2003). Intergenerational transmission of partner violence: A 20-year prospective study. *Journal of Consulting and Clinical Psychology, 71*, 741–753. doi:10.1037/0022-006X.71.4.741.

- Elliott, G. C., Avery, R., Fishman, E., & Hoshiko, B. (2002). The encounter with family violence and risky sexual activity among young adolescent females. *Violence and Victims, 17*, 569–592. doi:10.1891/vivi.17.5.569.33710.
- Emery, R. E., & Laumann-Billings, L. (1998). An overview of the nature, causes, and consequences of abusive family relationships: Toward differentiating maltreatment and violence. *The American Psychologist, 53*, 121–135. doi:10.1037/0003-066X.53.2.121.
- Fantuzzo, J. W., & Fusco, R. A. (2007). Children's direct exposure to types of domestic violence crime: A population-based investigation. *Journal of Family Violence, 22*, 543–552. doi:10.1007/s10896-007-9105-z.
- Fantuzzo, J. W., & Mohr, W. K. (1999). Prevalence and effects of child exposure to domestic violence. *The Future of Children, 9*, 21–32. doi:10.2307/1602779.
- Farrington, D. P. (2003). Developmental and life course criminology: Key theoretical and empirical issues—the 2002 Sutherland Award Address. *Criminology, 41*, 221–225. doi:10.1111/j.1745-9125.2003.tb00987.x.
- Fergusson, D. M., Boden, J. M., & Horwood, L. J. (2006). Examining the intergenerational transmission of violence in a New Zealand birth cohort. *Child Abuse and Neglect, 30*, 89–108. doi:10.1016/j.chiabu.2005.10.006.
- Fergusson, D. M., & Horwood, L. J. (1998). Exposure to interparental violence in childhood and psychosocial adjustment in young adulthood. *Child Abuse and Neglect, 22*, 339–357. doi:10.1016/S0145-2134(98)00004-0.
- Field, C. A., & Caetano, R. (2005). Longitudinal model predicting mutual partner violence among White, Black, and Hispanic couples in the United States general population. *Violence and Victims, 20*, 499–511. doi:10.1891/vivi.2005.20.5.499.
- Finkelhor, D., & Kendall-Tackett, K. (1997). A developmental perspective on the childhood impact of crime, abuse, and violent victimization. In D. Cicchetti & S. L. Toth (Eds.), *Developmental perspectives on trauma: Theory, research, and intervention*. Rochester, NY: University of Rochester Press.
- Finkelhor, D., Ormrod, R., Turner, H., & Hamby, S. L. (2005). The victimization of children and youth: A comprehensive national survey. *Child Maltreatment, 10*, 5–25. doi:10.1177/1077559504271287.
- Graham-Bermann, S. A. (1998). The impact of woman abuse on children's social development: Research and theoretical perspectives. In G. W. Holden, R. A. Geffner, & E. N. Jouriles (Eds.), *Children exposed to marital violence: Theory, research, and applied issues*. Washington, DC: American Psychological Association.
- Hartley, C. C. (2002). The co-occurrence of child maltreatment and domestic violence: Examining both neglect and child physical abuse. *Child Maltreatment, 7*, 349–358. doi:10.1177/107755902237264.
- Herrenkohl, R., Huang, B., Tajima, E. A., & Whitney, S. D. (2003). Examining the link between child abuse and youth violence. *Journal of Interpersonal Violence, 18*, 1189–1208. doi:10.1177/0886260503255558.
- Herrenkohl, T. I., Sousa, C., Tajima, E. A., Herrenkohl, R. C., & Moylan, C. A. (2008). Intersection of child abuse and children's exposure to domestic violence. *Trauma, Violence & Abuse, 9*, 84–99. doi:10.1177/1524838008314797.
- Herrera, V. M., & McCloskey, L. A. (2001). Gender differences in the risk for delinquency among youth exposed to family violence. *Child Abuse and Neglect, 25*, 1037–1051. doi:10.1016/S0145-2134(01)00255-1.
- Holden, G. W. (1998). Introduction: The development of research into another consequence of family violence. In G. W. Holden, R. A. Geffner, & E. N. Jouriles (Eds.), *Children exposed to marital violence: Theory, research, and applied issues*. Washington, DC: American Psychological Association.
- Holden, G. W., Geffner, R. A., & Jouriles, E. N. (Eds.). (1998). *Children exposed to marital violence: Theory, research, and applied issues*. Washington, DC: American Psychological Association.
- Holtzworth-Monroe, A., & Stuart, G. (1994). Typologies of male batterers: Three subtypes and the differences among them. *Psychological Bulletin, 116*, 476–497. doi:10.1037/0033-2909.116.3.476.
- Hotaling, G. T., & Sugarman, D. B. (1986). An analysis of risk markers in husband to wife violence: The current state of knowledge. *Violence and Victims, 1*, 101–124.
- Hughes, H. M., & Barad, S. J. (1983). Psychological functioning of children in a battered women's shelter: A preliminary investigation. *The American Journal of Orthopsychiatry, 53*, 525–531.
- Ireland, T. O., Smith, C. A., & Thornberry, T. P. (2002). Developmental issues in the impact of child maltreatment on later delinquency and drug use. *Criminology, 40*, 359–399. doi:10.1111/j.1745-9125.2002.tb00960.x.
- Jacobson, W. B. (2000). *Safe from the start: Taking action on children exposed violence*. Washington, DC: U.S. Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention.
- Jaffe, P., Suderman, M., & Schieck, E. (1999). School-based anti-violence program: Canada. In A. R. Morrison & M. Biehl (Eds.), *From too close to home: Domestic violence in the Americas*. Baltimore, MD: John Hopkins University Press.
- Jouriles, E. N., Barling, J., & O'Leary, K. D. (1987). Predicting child behavior problems in maritally violent families. *Journal of Abnormal Child Psychology, 15*, 165–173. doi:10.1007/BF00916346.
- Jouriles, E. N., McDonald, R., Norwood, W. D., & Ezell, E. (2001). Issues and controversies in documenting the prevalence of children's exposure to domestic violence. In S. A. Graham-Bermann & J. L. Edleson (Eds.), *Domestic violence in the lives of children*. Washington, DC: American Psychological Association.
- Kernic, M. A., Wolf, M. E., Holt, V. L., McKnight, B., Huebner, C. E., & Rivara, F. P. (2003). Behavioral problems among children whose mothers are abused by an intimate partner. *Child Abuse and Neglect, 27*, 1231–1246. doi:10.1016/j.chiabu.2002.12.001.
- Kitzmann, K. M., Gaylord, N. K., Holt, A. R., & Kenny, E. D. (2003). Child witness to domestic violence: A meta-analytic review. *Journal of Counseling and Clinical Psychology, 71*, 339–352. doi:10.1037/0022-006X.71.2.339.
- Kolbo, J. R., Blakely, E. H., & Engleman, D. (1996). Children who witness domestic violence: A review of empirical literature. *Journal of Interpersonal Violence, 11*, 281–293. doi:10.1177/088626096011002010.
- Krohn, M. D., & Thornberry, T. P. (1999). Retention of minority populations in panel studies of drug use. *Drugs and Society, 14*, 185–207. doi:10.1300/J023v14n01\_11.
- Langhinrichsen-Rohling, J., & Neidig, P. (1995). Violent backgrounds of economically disadvantaged youth: Risk factors for perpetrating violence? *Journal of Family Violence, 10*, 379–397. doi:10.1007/BF02110712.
- Laub, J. H., & Sampson, R. J. (2003). *Shared beginnings, divergent lives: Delinquent boys to age 70*. Cambridge, MA: Harvard University Press.
- Liao, T. F. (2004). Comparing social groups: Wald statistics for testing equality among multiple logit models. *International Journal of Comparative Sociology, 45*, 3–16. doi:10.1177/0020715204048308.
- Linder, J. R., & Collins, W. A. (2005). Parent and peer predictors of physical aggression and conflict management in romantic

- relationships in early adulthood. *Journal of Family Psychology*, 19, 252–262. doi:10.1037/0893-3200.19.2.252.
- Lizotte, A. J., Chard-Wierschem, D. J., Loeber, R., & Stern, S. B. (1992). A shortened child behavior checklist for delinquency studies. *Journal of Quantitative Criminology*, 8, 233–245. doi:10.1007/BF01066746.
- Magdol, L., Moffitt, T. E., Caspi, A., & Silva, P. A. (1998). Developmental antecedents of partner abuse: A prospective-longitudinal study. *Journal of Abnormal Psychology*, 107, 375–389. doi:10.1037/0021-843X.107.3.375.
- Maker, A. H., Kemmelmeier, M., & Peterson, C. (1998). Long-term psychological consequences in women of witnessing parental physical conflict and experiencing abuse in childhood. *Journal of Interpersonal Violence*, 13, 574–589. doi:10.1177/088626098013005002.
- Margolin, G. (1998). Effects of domestic violence on children. In P. K. Trickett & C. J. Schellenbach (Eds.), *Violence against children in the family and the community*. Washington, DC: American Psychological Association.
- Margolin, G. (2005). Children's exposure to violence: Exploring developmental pathways to diverse outcomes. *Journal of Interpersonal Violence*, 20, 72–81. doi:10.1177/0886260504268371.
- Margolin, G., & Gordis, E. B. (2000). The effects of family and community violence on children. *Annual Review of Psychology*, 51, 445–479. doi:10.1146/annurev.psych.51.1.445.
- McCabe, K. M., Luccini, S. E., Hough, R. L., Yeh, M., & Hazen, A. (2005). The relationship between violence exposure and conduct problems among adolescents: A prospective study. *The American Journal of Orthopsychiatry*, 75, 575–584. doi:10.1037/0002-9432.75.4.575.
- McCloskey, L. A., Fernandez, M. E., Southwick, K., & Locke, C. (1995). The psychological effects of political and domestic violence on Central American and Mexican immigrant mothers and children. *Journal of Community Psychology*, 23, 95–116. doi:10.1002/1520-6629(199504)23:2<95::AID-JCOP2290230202>3.0.CO;2-A.
- McCloskey, L. A., & Lichter, E. L. (2003). The contribution of marital violence to adolescent aggression across different relationships. *Journal of Interpersonal Violence*, 18, 390–412. doi:10.1177/0886260503251179.
- McDonald, R., Jouriles, E. N., Ramisetty-Mikler, S., Caetano, R., & Green, C. E. (2006). Estimating the number of American children living in partner-violent families. *Journal of Family Psychology*, 20, 137–142. doi:10.1037/0893-3200.20.1.137.
- McNeal, C., & Amato, P. R. (1998). Parents' marital violence: Long-term consequences for children. *Journal of Family Issues*, 19, 123–139. doi:10.1177/019251398019002001.
- Moffitt, T. E., Krueger, R. F., Caspi, A., & Fagan, J. (2000). Partner abuse and general crime: How are they the same? How are they different? *Criminology*, 38, 199–232. doi:10.1111/j.1745-9125.2000.tb00888.x.
- Morse, B. J. (1995). Beyond the conflict tactics scale: Assessing gender differences in partner violence. *Violence and Victims*, 10, 251–272.
- Osofsky, J. D. (2003). Prevalence of children's exposure to domestic violence and child maltreatment: Implications for prevention and intervention. *Clinical Child and Family Psychology Review*, 6, 161–170. doi:10.1023/A:1024958332093.
- Reid, J. B., Patterson, G. R., & Snyder, J. (2002). *Antisocial behavior in children and adolescents: A developmental analysis and model for intervention*. Washington, DC: American Psychological Association.
- Rennison, C. M., & Welchans, S. (2000). *Intimate partner violence*. Washington, DC: U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Statistics.
- Rossmann, B. B. R. (2001). Longer term effects of children's exposure to domestic violence. In S. A. Graham-Bermann & J. L. Edelson (Eds.), *Domestic violence in the lives of children*. Washington, DC: American Psychological Association.
- Rutter, M., Giller, H., & Hagell, A. (1998). *Antisocial behavior by young people*. Cambridge, UK: Cambridge University Press.
- Schafer, R. B., Wickrama, K. A. S., & Keith, P. M. (1998). Stress in marital interaction and change in depression: A longitudinal analysis. *Journal of Family Issues*, 19, 578–594. doi:10.1177/019251398019005005.
- Simons, R. L., & Johnson, C. (1998). An examination of competing explanations for the intergenerational transmission of domestic violence. In Y. Danieli (Ed.), *International handbook of multigenerational legacies of trauma*. New York, NY: Plenum Press.
- Simons, R. L., Lin, K. H., & Gordon, L. C. (1998). Socialization in the family of origin and male dating violence: A prospective study. *Journal of Marriage and the Family*, 60, 467–478. doi:10.2307/353862.
- Simons, R. L., Simons, L. G., & Wallace, L. E. (2004). *Families, delinquency and crime*. Los Angeles, CA: Roxbury.
- Smith, C. A., Ireland, T. O., Thornberry, T. P., & Elwyn, L. (in press). Childhood maltreatment and antisocial behavior: Comparison of self-reported and substantiated maltreatment. *The American Journal of Orthopsychiatry*.
- Smith, C. A., Ireland, T. O., & Thornberry, T. P. (2005). Adolescent maltreatment and its impact on young adult antisocial behavior. *Child Abuse and Neglect*, 29, 1099–1119. doi:10.1016/j.chiabu.2005.02.011.
- Smith, C. A., Krohn, M. D., Lizotte, A. J., McCluskey, C. P., Stouthamer-Loeber, M., & Weiher, A. (2000). The effect of early delinquency and substance use on precocious transitions to adulthood among adolescent males. In G. L. Fox & M. L. Benson (Eds.), *Families, crime and criminal justice*. Amsterdam: JAI Press.
- Smith, C. A., & Thornberry, T. P. (1995). The relationship between childhood maltreatment and adolescent involvement in delinquency. *Criminology*, 33, 451–481. doi:10.1111/j.1745-9125.1995.tb01186.x.
- Sternberg, K. J., Lamb, M. E., Greenbaum, C., Cicchetti, D., Dawud, S., Cortes, R. M., et al. (1993). Effects of domestic violence on children's behavior problems and depression. *Developmental Psychology*, 29, 44–52. doi:10.1037/0012-1649.29.1.44.
- Stewart, A., Livingston, M., & Dennison, S. (2008). Transitions and turning points: Examining the links between child maltreatment and juvenile offending. *Child Abuse and Neglect*, 32, 51–66. doi:10.1016/j.chiabu.2007.04.011.
- Stith, S. M., Rosen, K. H., Middleton, K. A., Busch, A. L., Lundeberg, K., & Calton, R. P. (2000). The intergenerational transmission of spouse abuse: A meta-analysis. *Journal of Marriage and the Family*, 62, 640–654. doi:10.1111/j.1741-3737.2000.00640.x.
- Stouthamer-Loeber, M., Loeber, R., Hormish, D. L., & Wei, E. (2001). Maltreatment of boys and the development of disruptive and delinquency behavior. *Development and Psychopathology*, 13, 941–955.
- Straus, M. A. (1979). Measuring intrafamily conflict and violence: The conflict tactics (CTS) scales. *Journal of Marriage and the Family*, 41, 75–88. doi:10.2307/351733.
- Straus, M. A. (1990). Appendix B: New scoring methods for violence and new norms for the conflict tactics scales. In M. A. Straus & R. J. Gelles (Eds.), *Physical violence in American families: Risk factors and adaptations to violence in 8, 145 families*. New Brunswick, NJ: Transaction Publishers.
- Straus, M. A., & Gelles, R. J. (1979). Violence in the American family. *The Journal of Social Issues*, 35, 15–39.



- Straus, M. A., & Gelles, R. J. (1990). *Physical violence in American families: Risk factors and adaptations to violence in 8, 145 families*. New Brunswick, NJ: Transaction Publishers.
- Straus, M. A., Hamby, S. L., Boney-McCoy, S., & Sugarman, D. S. (1996). The revised conflict tactics scales (CTS2). *Journal of Family Issues*, 17, 283–316. doi:10.1177/019251396017003001.
- Thornberry, T. P., Freeman-Gallant, A., Lizotte, A. J., Krohn, M. D., & Smith, C. A. (2003a). Linked lives: The intergenerational transmission of antisocial behavior. *Journal of Abnormal Child Psychology*, 31, 171–184. doi:10.1023/A:1022574208366.
- Thornberry, T. P., Ireland, T. O., & Smith, C. A. (2001). The importance of timing: The varying impact of childhood and adolescent maltreatment on multiple problem outcomes. *Development and Psychopathology*, 13, 957–979.
- Thornberry, T. P., & Krohn, M. D. (2001). The development of delinquency: An interactional perspective. In S. O. White (Ed.), *Handbook of youth and justice*. New York: Plenum.
- Thornberry, T. P., & Krohn, M. D. (2005). Applying interactional theory to the explanation of continuity and change in antisocial behavior. In D. P. Farrington (Ed.), *Integrated developmental & life-course theories of offending* (Vol. 14). New Brunswick, NJ: Transaction Publishers.
- Thornberry, T. P., Krohn, M. D., Lizotte, A. J., Smith, C. A., & Tobin, K. (2003b). *Gangs and delinquency in developmental perspective*. Cambridge, UK: Cambridge University Press.
- Tjaden, P., & Thoennes, N. (2000). Extent, nature and consequences of intimate partner violence. Findings from the national violence against women survey. Retrieved on June 12, 2008. <http://www.ncjrs.gov/pdffiles1/nij/183781.pdf>.
- Tolan, P. H., Gorman-Smith, D., & Henry, D. B. (2003). The developmental ecology of urban males' youth violence. *Developmental Psychology*, 39, 274–291. doi:10.1037/0012-1649.39.2.274.
- Tomison, A. M. (2000). *Exploring family violence: Links between child maltreatment and domestic violence*. Melbourne, Australia: Australian Institute of Family Studies.
- US Department of Justice. (2003). Intimate partner violence, 1993–2001. <http://www.ojp.usdoj.gov/bjs/pub/pdf/ipv01.pdf>.
- Wagar, J. M., & Rodway, M. R. (1995). An evaluation of a group treatment approach for children who have witnessed wife abuse. *Journal of Family Violence*, 10, 295–306. doi:10.1007/BF02110994.
- Wekerle, C., & Wall, A. M. (2002). *Violence and addiction equation: Theoretical and clinical issues in substance abuse and relationship violence*. New York: Brunner-Routledge.
- Widom, C. S. (1989a). Child abuse, neglect, and violent criminal behavior. *Criminology*, 27, 251–271. doi:10.1111/j.1745-9125.1989.tb01032.x.
- Widom, C. S. (1989b). The cycle of violence. *Science*, 244, 160–166. doi:10.1126/science.2704995.
- Widom, C. S., & Maxfield, M. G. (2001). *An update on the 'cycle of violence'*. National Institute of Justice, research in brief. Washington, DC: U.S. Department of Justice, Office of Justice Programs, National Institute of Justice.
- Wolak, J., & Finkelhor, D. (1998). Children exposed to partner violence. In J. L. Jasinski & L. M. Williams (Eds.), *Partner violence: A comprehensive review of 20 years of research*. Thousand Oaks, CA: Sage Publications.
- Wolf, K. A., & Foshee, V. A. (2003). Family violence, anger expression styles and adolescent dating violence. *Journal of Family Violence*, 18, 309–316. doi:10.1023/A:1026237914406.
- Wolfe, D. A., Wekerle, C., Scott, K., Straatman, A., Grasley, C., & Reitzel-Jaffe, D. (2003). Dating violence prevention with at-risk youth: A controlled outcome evaluation. *Journal of Consulting and Clinical Psychology*, 71, 279–291. doi:10.1037/0022-006X.71.2.279.
- Yates, T. M., Dodds, M. F., Sroufe, L. A., & Egeland, B. (2003). Exposure to partner violence and child behavior problems: A prospective study controlling for child physical abuse and neglect, child cognitive ability, socioeconomic status, and life stress. *Development and Psychopathology*, 15, 199–218. doi:10.1017/S0954579403000117.

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