

The Contribution of Marital Violence to Adolescent Aggression Across Different Relationships

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Different forms of aggression were measured in 296 young men and women participating in a study dating from their childhood that included families with marital violence. The youth reported on their perpetration of physical aggression with same-sex peers, dating partners, and parents. Measures were also collected on youth depression and empathy. Childhood exposure to marital violence predicted aggression toward peers for all youth. Marital violence was also related to child-to-parent aggression but only for youth older than 18. Youth from maritally violent homes were more likely to be depressed as adolescents. Elevated depression partially mediated the impact of marital violence on peer aggression and was associated with dating aggression among girls. Although marital violence in childhood was unrelated to empathy scores in adolescence, empathic youth were less likely to engage in dating aggression and peer aggression. Findings indicate that further emphasis should be placed on mental health problems and empathy building in youth exposed to marital violence.

Keywords: *child abuse; marital violence; family violence; antisocial aggression; children of battered women*

Much of the research on children exposed to marital violence focuses on the mental health problems of school-age children (McCloskey, Figueredo, & Koss, 1995; Sternberg et al., 1993). These children display a wide array of symptoms, in some cases mirroring post-traumatic stress disorder (McCloskey

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& Walker, 2000). Children of battered women are also more aggressive than other children (Jouriles, Murphy, & O'Leary, 1989), although the extent of this aggression as they grow older is unknown.

There is a pressing concern that youth exposed to violence in the home will grow up to repeat it. This concern stems in part from evidence consistent with a family cycle of violence. Adult men who batter their wives recollect their own fathers' abuse of their mothers more often than control group men (Hotaling & Sugarman, 1986). It is important to further study whether the seeds of adult aggression, and intimate partner violence in particular, are planted in childhood.

It is also possible that exposure to marital violence affects girls and boys differently. The research findings on gender differences in this area are sparse. Battered women's sons appear to have more conduct problems than daughters and are more aggressive (Jaffe, Wolfe, Wilson, & Zak, 1986). It should be born in mind, however, that other studies disclose no gender differences in response to domestic violence (c.f. Jouriles & LeCompte, 1991).

The Scope and Family Origins of Adolescent Aggression

This study included youth who, as children (age 6 to 12), witnessed their fathers' abuse of their mothers. In addition, youth matched on many demographic characteristics but whose parents had nonviolent marriages were included for comparison. In particular, we looked at whether teenagers expressed physical aggression in three different contexts: relationships with same-sex peers, different-sex dating partners, and parents. Aggressing against same-sex peers is probably the most common form of adolescent aggression. The tendency toward peer aggression among boys both in childhood and adolescence has been traced to early coercive and neglectful parenting (Dishion, Patterson, Stoolmiller, & Skinner, 1991).

Fighting with peers is not the only form of violence in the social life of American teenagers, however. As many as 20% of teens receive or perpetrate physical aggression in dating relationships (Foshee et al., 1996). A family history of marital violence seems to heighten the risk of dating violence in adolescence (Breslin, Riggs, O'Leary, & Arias, 1990; Gwartney-Gibbs, Stockard, & Bohmer, 1987; Simons, Lin, & Gordon, 1998). Retrospective studies of men indicate strong effects of family violence history on recent relationship abuse (Reitzel-Jaffe & Wolfe, 2001). On the other hand, in one meta-analysis of more than 40 studies, the relationship between early exposure to marital violence and adult intimate partner violence was fairly weak (Stith et al., 2000). How strong this cycle of spouse abuse is in families, therefore, remains unclear.

Child-to-parent physical aggression increases with children's age and is 18 times more frequent in families in which the mother is battered (Hotelling, Straus, & Lincoln, 1989). Other studies have confirmed that exposure to marital violence in particular poses a risk for teenagers to aggress toward their parents (Carlson, 1990). Recent research has also connected children's physical assaults against their parents to harsh disciplinary practices and corporal punishment (Brezina, 1999). Brezina (1999) proposed that children from coercive families observe that physical aggression leads to desired results; they eventually use the same tactics they have seen adults use because they recognize the inherent reinforcing potential of physical aggression.

Mechanisms in the Cycle of Violence

There are several potential routes by which children from maritally violent homes could become aggressors themselves. One is through social learning, specifically observational learning and imitation of adult models (Bandura, 1977). Exposure to adults fighting is exactly the sort of real-world analogue to the social learning experiments of the 1960s that showed how easily children are able to imitate adults modeling aggression in the laboratory (Bandura, 1977). Youth might also use aggression because they perceive it as a useful strategy for domination (Brezina, 1999). Direct effects of marital violence on aggression are consistent with either of these frameworks.

Another pathway from family violence to aggression is via psychopathology and, in particular, internalizing problems such as depression. Several studies have documented poor mental health outcomes including depression among children exposed to marital violence (Fantuzzo et al., 1991; McCloskey et al., 1995). Depression seems to be a keystone in the early onset of peer problems and aggression. For instance, studies of maltreated youngsters find that children who are depressed as a result of child abuse and neglect are more withdrawn and at the same time more aggressive with peers than other children (Rogosch & Cicchetti, 1994; Toth & Cicchetti, 1996). Studies of youth who have committed violent crimes reveal high rates of co-occurring depression (Ge, Best, Conger, & Simons, 1996). Delinquency and aggressive behavior are often comorbid with depression (Ge et al., 1996), although the reason for this correspondence is uncertain.

Another way in which exposure to marital violence could lead to later violent behavior is through the suppression of pro-social adaptations such as empathy. A well-developed capacity for empathy typically inhibits aggression (Kaukiainen et al., 1999; Miller & Eisenberg, 1988). Empathy enables children and adults to connect to other people and to sustain affective ties. It is

well documented that aggressive youth score low on measures of empathy for others (Miller & Eisenberg, 1988). Less is known about whether abusive family backgrounds relate to children's diminished potential for empathy. Various researchers have found that if children are able to develop a mature capacity for empathy, even with abusive backgrounds, they are less aggressive toward peers (LeSure-Lester, 2000). The connection of low empathy to aggression has been made in recent studies investigating the role of narcissism in the proneness to aggress (Baumeister, Bushman, & Campbell, 2000). These authors emphasized that the overblown self-esteem and conceit of narcissists fuel their aggressive tendencies, but another characteristic feature of narcissism is indifference to the feelings of others. Early signs, therefore, that empathy is underdeveloped could presage a risk for self-centered character problems and possibly aggression. Narcissistic qualities are common in some men identified as batterers (Dutton, 1995). Although there has not been extensive research conducted on empathy among male batterers, it is likely children from violent households have fathers who are self-centered and unempathic. The social skill deficits of violent fathers can be transmitted to the next generation through a failure to instill pro-social values.

Aims of the Study

Whether teenage youth who grow up in maritally violent homes display heightened physical aggression across various relationship contexts (e.g., dating, family, and peers) was tested. It was expected that, consistent with a cycle-of-violence hypothesis, such an effect of early home environment would be detected. Also, it was expected that peer aggression would be more prevalent in general than either dating or family based aggression, but these different forms of aggression should be interrelated. Finally, whether marital violence differentially contributes to higher odds of expressing physical aggression in any of these three relationship domains was explored.

Psychological mechanisms, such as depression in adolescence or empathy, were also examined. Both depression and empathy have been independently linked to aggressive behavior in children and young adults. Although these two constructs are usually studied separately, they both seem to be plausible mediators in the cycle of violence. First of all, the mental health effects of witnessing marital violence are well established, and therefore, depression is a likely outcome. Second, the attachment relations in families with marital violence are likely to be impaired, leading to reduced pro-social emotion and empathy. Understanding both sources of risk could lead to new ways to think about intervening or preventing youth violence.

METHOD

Sampling Approach

The findings are based on a longitudinal study of mother-child pairs first recruited during 1990 ($N = 363$) and re-interviewed during two subsequent waves over the years 1996 to 1997 ($N = 310$) and 1998 to 1999 ($N = 296$). Originally, the participants were recruited from low-income areas of a Southwestern mid-size city and reached through posters, public announcements, and agency referrals. The aim of the study was to examine the impact of marital violence on children. Women with at least one school-age child were solicited. Women who had experienced abuse from a partner in the past year were first recruited: 64 from shelters and 129 from the community. Women without recent histories of marital violence and one of their children made up the comparison group, or 46.8% of the total sample ($n = 170$). The findings therefore are based on a convenience sample with oversampling of the risk variable of interest, marital violence. This sampling approach is defensible because random sampling to obtain sufficient numbers of index families is prohibitively expensive. Marital violence has a fairly low base rate in the general population (approximately 5%) (Kessler, Molnar, Feurer, & Appelbaum, 2001). Marital violence is also a well-hidden and stigmatized family problem and is hard to ascertain without soliciting volunteers.

Several steps were taken to ensure that the sample was representative of a wide range of women in the community. Among these measures were the following: (a) canvassing wide areas and different venues throughout the city (more than 150 organizations), (b) rescheduling no-show appointments up to five times, and (c) collecting basic information about demographics and violence on the phone intake so we could later compare the families who came for the interview to those who failed to appear. The only difference we detected between women who were interviewed and women who we attempted but failed to interview was the length of their relationship; the women who failed to show were with their partners for a longer period of time.

Tracking and Retention

Only those youth and their mothers who were interviewed at all three time points are included in this analysis. By the time of the follow-up interviews, 2 of the children and 6 of the mothers had died. At the end of the third wave of interviews, 83.4% of the surviving mother-child dyads were retained. Attrition analyses revealed that by Time 3 more violence-exposed youth (21%)

than controls (12%) were lost to follow up, $\chi^2(1) = 4.08, p = .043$. Other than violence exposure, the participants re-interviewed at Times 2 and 3 were similar to those who were not captured at either or both times, based on analyses of Time 1 sociodemographic and mental health variables. Included in this roster were family income, family size, ethnic group membership, mother's marital status, child's mental health scores on the Child Behavior Checklist (Achenbach & Edelbrock, 1983), and mother's mental health scores on the Brief Symptom Inventory (Derogatis & Melisaratos, 1983). The follow-up sample, therefore, did not diverge substantially from the original sample on features we were able to measure at the initial interview, except in the number exposed in childhood to marital violence, and there remained an ample representation of such children in the study. The higher attrition rate of children from violent homes may have biased some of our results toward the null. If those who did not participate in all three waves of data collection had more violence in their families throughout the study period, compared to those who remained throughout the study period, based on our hypotheses, we would expect to see larger differences between the maritally violent group and the comparison group.

Research Participants

Children were between 6 and 12 years of age at the first interview ($M = 9.2$ years) and were on average 14.7 years old at Time 2 and 16.4 years old at Time 3. The ethnic distribution of the children was approximately 53.7% Anglo European, 35.8% Hispanic (mostly Mexican American), and the remaining self-identified as African American (4.7%), Native American (4.4%), Asian American (0.7%), or other (0.7%). Family sociodemographics at all three data collection waves are provided in Table 1.

Procedure

At each of the three time points, mothers and children were interviewed separately and at the same time in off-campus laboratories. Trained female interviewers, matched for ethnicity as much as possible, conducted the first two waves of interviews. During the third wave of data collection interviewers were matched by sex to male and female participants. Interview instruments were translated, and Spanish-speaking interviews were conducted at all three time points with the mothers (all of the children spoke English). Except for some early interviews that took place in shelters, interviewers were blind to the domestic violence history of the families at all time points until the end of the interviews, when violence history was assessed.

TABLE 1: Sociodemographics of the Sample (N = 296) Over Time

<i>Demographic Variable</i>	<i>Time 1</i>		<i>Time 2</i>		<i>Time 3</i>	
	M	SD	M	SD	M	SD
Child's age	9.2	1.92	14.7	2.08	16.4	2.03
Mother's age	32.9	5.2	38.9	5.16	40.7	5.14
Monthly take home pay** (dollars)	1498	932	2231	1366	2196	1821
Child's grade	3	1.96	9	1.86	10	1.63

** $p < .05$.

Mothers provided informed written consent for their own and their children's participation, and children provided written assent until they reached the age of majority and signed their own consent forms. At Time 1, mothers were compensated \$45.00 for the first interview, and children received a \$5.00 McDonald's food gift certificate. In subsequent interviews, mothers received \$30.00, and youth usually received a \$20.00 department store gift certificate.

Measures

During the first interview both mothers and their children were asked a range of questions about family violence and parental and child psychological health. The mothers' responses about marital violence were used in the present analysis. During the second wave, mothers and children were interviewed about the children's capacity for empathy, and youth were administered a depression symptom inventory. In the final wave of interviews, youth reported on their own physical aggression across three relationship domains: against peers, dating partners, and parents. One strength of this study was its reliance on two informants: Mothers provided the data for the independent variable of interest (childhood exposure to marital violence), and youth self-reported on the dependent variable (adolescent aggression). In addition, at least for one of the proposed mediators, empathy, both mother and child reports were used.

Independent Variable of Risk: Childhood Exposure to Marital Violence

Fifteen of the 19 items from the Conflict Tactics Scale (Straus, 1979) (omitting the first four questions) were used at Time 1 to assess the extent of

violence in the home. This scale has been criticized in the literature for failing to capture the full extent of a woman's experience with violence (Dobash, Dobash, Wilson, & Daly, 1992). In an effort to improve the scale's validity, we conducted informal focus groups with battered women and shelter staff. This consultation resulted in the addition of 7 items to the Conflict Tactics Scale. The items included acts of violence in which their partner burned them, harmed their pet, forced sex, forced anal/oral sex, threatened to harm the children if they left, destroyed their personal possessions (such as ripping their clothes), and invaded their privacy (e.g., opening their mail). These items, together with those from the Conflict Tactics Scale, were answered on a 7-point Likert-type scale (0 = *never*, 6 = *more than 20 times*). The Cronbach's alpha for the scale was .95. Children's reports on overlapping items at Time 1 were positively correlated with their mothers' ($p = .001$), further confirming the validity of the violence exposure.

The scores on the marital violence scale ranged from 0.00 to 5.53, with an overall mean of 1.46 ($SD = 1.43$). Many of the abused women in the study experienced escalated and severe forms of violence over several years that encompassed beatings (36%) and death threats (20%).

Outcome variable: Adolescent aggression. Different forms of aggression were measured according to the youth self-reports. These included peer aggression, dating aggression, and child-to-parent aggression. Only items tapping physical or threatened physical aggression were used. There are of course other nonphysical ways in which people express hostility and aggression, which we have omitted from this analysis. The reason to focus exclusively on physical aggression is that it is the most likely to result in injuries and severe consequences and signals the potential for breaking social norms beyond less overt forms of aggression.

Aggression toward peers. At Time 3, the adolescents were asked about aggressive acts they had perpetrated against same-sex peers. Six questions were asked about whether they had (a) ever been in a physical fight, (b) pushed a peer during the past month, (c) hit a peer within the past month, (d) ever hurt someone badly enough that they needed bandages or a doctor, (e) ever threatened someone with a weapon, and (f) physically attacked another person. This last item was from the Child Behavior Checklist (Achenbach & Edelbrock, 1983). Each item was converted to a dichotomous score (0, 1). The scale's internal consistency using Cronbach's alpha was .71.

Dating aggression. Both girls and boys at Time 3 were asked about committing acts of physical aggression against their dating partners during the

past year. There were eight items on the boys' scale (Cronbach's alpha = .71) and five overlapping items for girls (Cronbach's alpha = .73). These questions derive from the Conflict Tactics Scale (Straus, 1979) and represent a subset of those described in other surveys of teenage dating violence (e.g., Foshee et al., 1996). The overlapping items for both boys and girls were as follows. In the past year, have you done any of the following to any dating partner: (a) hit or kicked an object in anger; (b) threw an object at the partner; (c) pushed, grabbed, or shoved; (d) slapped or hit partner; or (e) threatened partner with a weapon. Boys were also asked whether they had (f) hit a girl for a number of minutes, (g) choked her, or (h) forced her to have sex. None of the boys confirmed perpetrating any of these three escalated forms of abuse against a dating partner. If a respondent reported no dating during the past year or had never dated, she or he was coded as never having perpetrated dating violence.

Child-to-parent aggression. At Time 3, the adolescents were asked four questions about their expression of physical aggression against either of their parents in the past year (Cronbach's alpha = .53). They reported whether in the past year they had (a) thrown an object at their mother, (b) thrown an object at their father, (c) hit or pushed their mother, or (d) hit or pushed their father. There were some cases of missing data for this variable because some of the youth were no longer residing with their parents. The total number of adolescents who were able to give a relevant response to these questions was 266.

Aggression as a categorical variable. The responses to our measures of aggression yielded a restricted variable range and a skewed distribution. The total number of items endorsed on any given scale was rarely more than two. Most of the youth reported no physical attacks against dating partners or parents, and nearly half avoided physical peer aggression. We therefore converted each of these dependent variables into dichotomous variables and conducted the analyses using logistic regressions.

Proposed intervening variables: Empathy and depression. We theorized that depression and empathy would play independent roles in the intergenerational transfer of risk for physical aggression.

Depression. Depression at Time 2 was measured with the adolescents' self-reports on the Catchment Epidemiologic Survey for Depression (Radloff, 1977). The scale is scored on a 4-point Likert-type scale ranging from 1 to 4. At Time 2, the mean score for the entire sample on this scale was

1.67 ($SD = 0.46$), with a Cronbach's alpha of .74. Girls were more likely to be depressed than boys, $F(1, 293) = 4.01, p = .05$.

Empathy. Empathy in youth was measured in two ways. Youth completed a self-report scale (Davis, 1983) that asked how often they "have feeling for those less fortunate" and "feel protective of those being taken advantage of." In addition, mothers completed a scale describing their children's level of empathy (see the appendix for scale items). Both of these scales were administered at Time 2. The empathy self-report scale given to the youth contained two subscales of empathy: social empathy and fantasy. We selected the one emphasizing feelings for people within the child's social sphere. Although Davis (1983) reported acceptable levels of internal reliability for each subscale, we were only able to obtain acceptable internal consistency on this subscale, and it was uncorrelated to one other subscale (fantasy). The empathy subscale for youth that was preserved for analyses had seven items scored on a 5-point Likert-type scale (Cronbach's alpha = .67). The mother's report of child empathy was newly developed for this study (see the appendix) and relied on the same metric (5-point) as the Davis self-report scale. The Parental Report of Child Empathy scale consisted of eight items (Cronbach's alpha = .82).

Maternal and child reports of the child's empathy were significantly correlated ($r = .24, p = .01$). Mother and child items were combined to form a single empathy index with 15 items. The total empathy scores ranged from 2.11 to 5.00 ($M = 3.86, SD = 0.54$). Cronbach's alpha for this new combined scale was acceptable (.77). On average, girls' empathy scores were higher than boys', $F(1, 290) = 10.90, p = .001$.

RESULTS

Profile of Adolescent Aggression

Boys (77.4%) were more likely than girls (58.0%) to report any physical aggression against a same-sex peer, $\chi^2(1, N = 296) = 12.70, p = .001$. Conversely, more girls than boys reported perpetrating dating aggression, $\chi^2(1, N = 292) = 4.61, p = .03$, with 20.3% of the girls and 11.1% of the boys reporting using any physical tactic against a dating partner. There was no gender difference in reported child-to-parent aggression.

Most of the aggressive behavior displayed in the sample was directed against same-sex peers. Among teens from maritally violent homes, 73.6% ($n = 109$) had aggressed against a peer, 17.7% ($n = 26$) had aggressed against

a dating partner, and 12.6% ($n = 16$) had attacked a parent. Of the adolescents from nonmaritally violent homes, 62% ($n = 91$) had physically aggressed against another same-sex teenager, 13.8% ($n = 20$) had aggressed against a dating partner, and 13.6% ($n = 19$) had attacked a parent. In two thirds of the cases of child-to-parent aggression, the mother was the target of the teen's attack.

Same-sex peer aggression is sufficiently common that it only weakly corresponds to aggressive behavior in other domains. For example, among teens from nonviolent homes, of those who aggressed against a same-sex peer, 79.8% had not attacked a dating partner, and 82.6% had never hit a parent. The same pattern held true for those from violent homes: 77% who had perpetrated an act of aggression against a same-sex peer reported no physical aggression against a dating partner, and 84% had not hit a parent. On the other hand, nearly all teenagers who hit someone close to them also reported perpetrating aggression against a same-sex peer. For example, of the youth from nonviolent homes who had hit or otherwise physically hurt a dating partner, 90% had also been aggressive against a peer and 89% against a parent. The pattern was similar for youth from violent homes.

Plan of Analysis

The analyses were designed to answer three main questions. The first is whether exposure to marital violence in childhood predicts later adolescent aggression in different relationships. The second is whether marital violence relates to adolescent psychological problems such as a proneness to depression or failure to develop empathy. Both such variables are known to correlate with heightened aggression in children and teenagers. The final question is whether these psychological problems in some way mediate the effect of growing up in a maritally violent home: Are children from these homes more aggressive because they have witnessed and perhaps modeled violent behavior in their homes or because of the impact such violence has had on their mental health or the formation of prosocial empathy?

To evaluate whether the psychological constructs of depression or empathy mediate between marital violence and subsequent aggressive behavior, we followed the guidelines of Baron and Kenny (1986) for testing a mediational model. According to Baron and Kenny, a reduction in the strength of the relationship between an independent and dependent variable in the presence of a mediator indicates that the mediator accounts for some of the relationship between the predictor and outcome variables.

A mediational framework is best tested with longitudinal data in which there is a defined temporal order between variables. In our own study, the first

independent variable, childhood exposure to marital violence, precedes by about 6 years the measurement of mediators (depression and empathy). The three outcomes, aggression against peers, dating partners, and parents, were all assessed about 18 months after the mediators were measured. Although the findings remain essentially correlational, such temporal ordering strengthens any causal interpretations.

Logistic regressions were performed for each form of interpersonal aggression to illuminate whether marital violence enhanced the likelihood of aggression. Depression and empathy scores were uncorrelated and were tested separately as two different potential channels to aggressive behavior. With each regression, sex and age were entered as control variables. Initial analyses revealed that being older than age 18 distinguished aggressive from nonaggressive youth across all three relationship domains, therefore age was represented by a dichotomous variable, younger than 18 versus older than 18.

Logistic Regressions to Test the Theoretical Models

Based on the literature, we expected that teenagers exposed to increased levels of marital violence would be more aggressive. This expectation was generally confirmed, although not in all relationship contexts. Specifically, the odds ratio of engaging in peer-on-peer aggression if a child was from a maritally violent home was 1.37 (95% confidence interval = 1.12, 1.68), controlling for age and sex. In the case of child-to-parent aggression, we found that only older youth (older than 18) from violent homes had increased odds of physically aggressing against a parent (odds ratio = 1.68, 95% confidence interval = 1.00, 2.83). Marital violence alone failed to predict whether a youth perpetrated at least one act of dating aggression, but a more subtle portrait of how marital violence might influence dating violence is offered below.

Children exposed to increasing levels of violence in the home when young exhibited higher levels of depression during early adolescence at Time 2 ($r = .19, p < .001$). Marital violence was unrelated to scores on empathy, and therefore, empathy was not considered as a candidate for mediation. The independent effect of empathy on aggression was tested, as well as empathy as a potential moderator of exposure to violence and adolescent aggression.

Testing a Mediational Model of Peer Aggression

To test the hypothesis that depression mediated the relationship between childhood exposure to marital violence and adolescent peer aggression, we performed a series of logistic regression analyses: (a) marital violence alone predicting peer aggression, (b) marital violence predicting depression, and

TABLE 2: Logistic Regressions Predicting Aggression Against Peers (N = 295)

<i>Variable</i>	<i>B</i>	<i>SE</i>	<i>Odds Ratio</i>	<i>95% Confidence Interval</i>
Regression 1				
Marital violence	0.32	0.10	1.37	1.12, 1.68***
Child's sex	-0.72	0.27	0.41	0.24, 0.69†
Older than age 18	0.62	0.29	1.87	1.05, 3.30**
Regression 2				
Marital violence	0.25	0.11	1.28	1.04, 1.58**
Child's sex	-1.02	0.28	0.36	0.21, 0.62†
Older than age 18	0.62	0.30	1.86	1.04, 3.36**
Depression	1.22	0.34	3.40	1.74, 6.63†
Regression 3				
Marital violence	0.31	0.11	1.36	1.11, 1.67***
Child's sex	-0.72	0.28	0.49	0.28, 0.85**
Older than age 18	0.70	0.30	2.02	1.12, 3.63**
Empathy	-0.65	0.28	0.52	1.12, 3.63**

** $p < .05$. *** $p < .01$. † $p < .001$.

(c) depression entered into the equation with marital violence to determine whether the main effect of marital violence attenuates. This analysis demonstrates that both childhood depression and exposure to marital violence are related to adolescent peer aggression (Table 2). Increasing scores on the modified Conflict Tactics Scale are associated with a 28% increase in the odds of peer aggression perpetration (odds ratio = 1.28, 95% confidence interval = 1.04, 1.58), controlling for childhood depression. A 1-point increase in depression is associated with a 3.40 (95% confidence interval = 1.74, 6.63) increase in the odds of perpetrating aggression against a peer, controlling for a history of violence in the family.

With the addition of depression to the model, the effect of marital violence on peer aggression wanes somewhat. Based on Baron and Kenny's (1986) criteria for mediational effects, we may conclude that depression partially mediates the relationship between exposure to marital violence and adolescent peer aggression, with marital violence retaining a direct effect. Interactions between sex and depression, depression and marital violence, and depression and age were tested but did not significantly improve the fit of the model.

Empathy makes an independent contribution to peer aggression, over and above the effects of gender and marital violence (Table 2). A negative differ-

ence of 1 point on the empathy scale is associated with a 50% decrease in the odds of perpetrating aggression against a peer (odds ratio = 0.54, 95% confidence interval = 0.30, 0.90). The odds of perpetrating aggression against a peer among those with the lowest empathy scores (empathy = 2.11) are 6.67 times the odds of peer aggression among those with the highest empathy scores (empathy = 5.0). Interactions between gender, age, empathy, and marital violence were tested but were not significant.

Dating Aggression

Marital violence fails to directly predict aggression against a dating partner (see Table 3). However, lower empathy and increased depression increase the odds of a youth aggressing against a dating partner, with depression exerting an especially large effect with an odds ratio of 3.72 (95% confidence interval = 1.83, 7.56). Further analyses reveal that the relationship between depression and dating aggression varies by sex and by age (Table 3). Being a girl and being depressed at Time 2 increase the odds of later perpetrating dating aggression by 5.70 (95% confidence interval = 1.12, 28.93). Therefore, although a mediational model cannot be applied, marital violence does predict later depression, which in turn results in dating violence, especially for girls. Higher empathy scores decreased the odds of perpetrating dating aggression by 61% for all youth (odds ratio = 0.39, 95% confidence interval = 0.21, 0.73) (Table 3). Interactions between empathy and the other main effects were not statistically significant.

Child-to-Parent Aggression

Childhood exposure to marital violence relates to adolescents' physical aggression against their parents, but this effect depends on whether the adolescent is younger than the age of 18. Adolescents older than the age of 18 who grew up in violent homes have the greatest odds of aggressing against a parent (OR = 1.68, 95% confidence interval = 1.00, 2.83).

When a history of marital violence is controlled, empathy and depression do not independently relate to child-to-parent aggression (see Table 4). Interactions of violence, age, and sex with empathy and depression fail to reach significance. It is worthy of mention that although the tests of statistical significance fail to meet conventional criteria of statistical significance, depressed youth were twice as likely to report this form of aggression than other youth (odds ratio = 2.05, 95% confidence interval = 0.96, 4.40).

TABLE 3: Final Models of Series of Logistic Regressions Predicting Dating Aggression (N = 292)

<i>Variable</i>	<i>B</i>	<i>SE</i>	<i>Odds Ratio</i>	<i>95% Confidence Interval</i>
Marital violence	-0.07	0.13	0.94	0.73, 1.20
Child's sex	-2.28	1.48	0.10	0.006, 1.86
Older than age 18	1.35	0.37	3.86	1.87, 7.97†
Depression	0.18	0.67	1.19	0.32, 4.44
Depression × Sex	1.74	0.83	5.70	1.12, 28.93**
Marital violence	0.03	0.12	1.04	0.82, 1.30
Child's sex	1.18	0.39	3.26	1.54, 6.94***
Older than age 18	1.37	0.36	3.92	1.95, 7.85†
Empathy	-0.94	0.32	0.39	0.21, 0.73***

** $p < .05$. *** $p < .01$. † $p < .001$.

TABLE 4: Final Models From a Series of Logistic Regressions Predicting Child-to-Parent Aggression (N = 267)

<i>Variable</i>	<i>B</i>	<i>SE</i>	<i>Odds Ratio</i>	<i>95% Confidence Interval</i>
Marital violence	-0.28	0.21	0.76	0.50, 1.15
Child's sex	0.13	0.38	1.14	0.54, 2.42
Older than age 18	-0.09	0.58	0.91	0.29, 2.82
Marital Violence × Older Than Age 18	0.48	0.28	1.62	0.94, 2.78*
Depression	0.72	0.39	2.05	0.96, 4.40*
Marital violence	0.23	0.21	0.80	0.53, 1.20
Child's sex	0.30	0.40	1.35	0.62, 2.96
Older than age 18	-0.02	0.57	0.98	0.32, 3.00
Marital Violence × Older Than Age 18	0.49	0.28	1.63	0.95, 2.79
Empathy	-0.38	0.38	0.68	0.33, 1.43

* $p < .10$.

Summary

The data indicate that children from violent homes are at risk for becoming aggressive adolescents in some relationship domains. We found evidence supporting a mediating role of depression in the relationship between exposure to marital violence and adolescent aggression toward peers. Depression

relates to early exposure to marital violence and aggression in girls. Empathy is an important variable in explaining adolescent aggression toward peers and toward dating partners, although it appears to develop independently of whether a child grows up in a maritally violent household. Growing up in homes with marital violence may increase the risk for adolescent violence among older youth living at home. However, the small number of children who reported aggressing against a parent may have limited our power to detect an effect.

DISCUSSION

The Profile of Aggressive Behavior in Youth

Most research on adolescent aggression focuses on a single relationship dimension. One unique feature of this study was the measurement of aggression in three different relationship domains. Aggression against same-sex peers is by far the most prevalent form in this study. We also discovered, however, that if an adolescent reports aggression against an intimate, such as a dating partner or parent, they nearly always have a history of peer aggression too. The inverse is not true. Among the many youth who hit or fought with peers, only a few showed concordant aggression with intimates. It appears that youth who strike out at intimates are aggressive across a wider range of contexts than youth who only manifest aggression against acquaintances or same-sex peers. In studies of aggression in children, researchers have found that aggressing in several different contexts predicts a more entrenched pattern of antisocial behavior (Loeber & Dishion, 1984).

There were some gender differences in reports of aggression. More boys than girls engage in peer aggression; more girls than boys report perpetrating dating aggression. There were no gender differences in aggression against a parent. The finding that the boys in this sample do not describe more experience with dating violence than girls is consistent with other studies of teenage dating violence (Foshee et al., 1996; Neufeld et al., 1999). On the other hand, the gender asymmetry in the potential to inflict physical harm is lost to measurement within the confines of our own research instruments. To conclude that there are no gender differences in physical aggression, or, in the present case, that girls are more physically threatening than boys, is to ignore the different meanings and potential threats of aggression emanating from different sources (Dobash et al., 1992; Molidor & Tolman, 1998; Reitzel-Jaffe & Wolfe, 2001). These findings are cursory, and further study is needed to reveal more

about the nature of aggressive episodes, the social context, and ultimately the meaning.

Is There a Cycle of Violence?

Our findings show that youth from maritally violent homes are more likely to report physical aggression against a same-sex peer. Marital violence relates to later depression scores, and the state of depression accounts for some of the variance in peer aggression. Therefore, both exposure to marital violence in childhood and subsequent depression result in higher self-reports of aggressing against same-sex peers.

Although a direct cycle of violence fails to explain dating aggression in this analysis, it is plausible that exposure to family violence early in life launches a risk for psychopathology that in turn promotes dating aggression in girls. Marital violence correlates with later teenage depression. Depression in turn predicts girls' reports of dating aggression. Among young adults in the study, exposure to marital violence predicts their own physical aggression against a parent, usually the mother.

Each of these relationship domains deserves more in-depth analysis to further uncover the dynamics of these aggressive episodes. The psychological mechanisms also require further scrutiny, yet from our results, we can discern that depression bestows a unique risk for aggression behavior in different relationship domains. Empathy acts as a buffer across two of the relationship domains.

Depression and Aggressive Behavior

Youth from violent family backgrounds carry a rather broad mental health burden. This represents the likelihood of heterotypic outcomes from a single and common source of risk, what Cicchetti and Rogosch (1996) have termed "multifinality." Depression appears to be one of those outcomes in our own study, more prominent among girls, and a link between the influence of family violence and aggression against peers and dating partners. This finding corroborates another recent report of mental health as a mediator of intergenerational transmission of intimate partner violence (Murphy & Blumenthal, 2000).

Researchers find that psychological morbidity predicts marital discord (Beach & O'Leary, 1993) and even physical aggression (Feldbau-Kohn, Heyman, & O'Leary, 1998). Mood disorders in particular are implicated in

these studies. A history of depression before marriage predicts divorce (odds ratio = 1.7) (Kessler, Walters, & Forthofer, 1998). A recent study based on a national sample reported that a psychiatric history of clinical disorders including major depression, anxiety, alcoholism, and nonaffective psychosis predicted men's physical abuse of their wives (Kessler et al., 2001).

Interaction terms in our analyses reveal that the depression effect in dating violence in this study applies only to girls. Depressed girls are almost 6 times more likely to aggress against a dating partner than others in the sample. This finding can be interpreted in two ways. One possibility is that girls who are depressed are also more hostile and prone to aggress. On the other hand, given that dating violence is frequently mutual, it is possible that the depression assessed at Time 2 actually resulted from relationship conflict unmeasured at that time, and possibly even of ongoing abuse. This finding requires further exploration to clarify why it is that depression and dating violence are related, and only among girls.

Although the relationship between depression and child-to-parent aggression in this study failed to meet the criteria of statistical significance, it seems plausible that depression at Time 2 either prompts later physical disputes with parents or, conceivably, results from parent-child conflict during Time 2 that precedes these outbursts. It is also possible that in a larger sample this odds ratio would have met the criteria for statistical significance. Depression might be psychologically significant in understanding the origins of child-to-parent aggression.

Empathy and Aggression

Although empathy did not emerge as a mediator in our study, it was still an important deterrent to adolescent aggression. Children from violent households were no less empathic as measured with combined self and maternal reports than children from nonviolent backgrounds. Girls showed higher empathy scores overall than boys, but empathy served as a buffer against peer and dating aggression equally for the sexes. Similar findings have been reported in studies of preadolescents (Miller & Eisenberg, 1988). Youth, therefore, low on empathy are more physically aggressive toward other youth. This finding is also consistent with recent research implicating self-centered traits and narcissism in the proneness to aggress (Baumeister et al., 2000); low empathy corresponds to a high degree of narcissism. Therefore, although there was not evidence for a mediating effect of empathy, it did have a direct effect on dating violence.

Limitations

This study demonstrates that a link exists between exposure to marital violence and aggression toward same-sex peers and parents. However, the cycle of violence hypothesis was not entirely confirmed by the analyses on dating aggression. One of the reasons for this may be a problem with the measurement of the dating aggression construct. The Conflict Tactics Scale does not differentiate between the initiation of aggression and aggression in retaliation. We found that girls were more likely to be aggressive toward their dating partners, but it remains unclear whether their aggression was in response to violence by a partner or whether it was unprovoked. Furthermore, the different implications of victimization by a male versus a female dating partner are lost when using this type of measurement. Researchers, such as Marshall (1992), have attempted to capture gender differences in the experience of partner aggression by weighting the acts based on frequency and severity. In these analyses, using a dichotomous variable to capture dating aggression perhaps limited our ability to capture the full range of experiences with partner violence.

A related concern was reliance on self-reported aggressive behavior during adolescence. Youth tend to underreport aggression perpetration, especially against dating partners. Several studies have documented the influence of social desirability among respondents questioned about intimate partner aggression (Sugarman & Hotaling, 1997). However, a strength of this study was the use of multiple informants for the report of empathy and using mother reports of marital violence along with youth self-reports of depression, empathy, and aggression.

Finally, it is important to acknowledge that although we focus exclusively on exposure to marital violence, such a risk factor of course correlates with many other risk factors that could potentially influence outcomes. According to one prospective study of 600 New Zealanders, adversity across multiple domains accounts for later relationship violence. Poverty, family conflict, low educational performance, and child problem behaviors all contributed to the outcome of dating aggression in young adulthood (Magdol, Moffitt, Caspi, & Silva, 1998). In this study, exposure to marital violence is likely one of several precursors to adolescent depression and aggression.

This study contributes to current research by considering aggression in several relationship contexts and by placing two psychological constructs, depression and empathy, as links between early violence exposure and aggression in youth. The longitudinal design and use of a community sample help to strengthen the findings presented here. Yet we believe that our findings are only at the tip of an iceberg requiring further elaboration with qualitative study as well as new approaches to quantitative empirical study.

APPENDIX
Parent's Report Of Child Empathy

Please describe how much you agree or disagree with any of the following statements about your child. The scale is 1 = *strongly disagree* to 5 = *strongly agree*.

- 1 = strongly disagree
- 2 = disagree
- 3 = neither
- 4 = agree
- 5 = strongly agree

My child: [name]

1. acts genuinely sorry when she or he has hurt other people's feelings.
 2. is kind and helpful to younger children.
 3. When [name] does something wrong she or he blames other people for why she or he made a mistake.
 4. shows concern for other people with troubles.
 5. has a hard time seeing another person's side when they disagree.
 6. tries to help others when they seem to need help.
 7. shows concern when she or he thinks other people are treated unfairly.
 8. will make a good and caring parent someday.
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