

## Interparental Conflict and Adolescent Dating Relationships: Integrating Cognitive, Emotional, and Peer Influences

Kristen M. Kinsfogel and John H. Grych  
Marquette University

This study investigated the ways in which exposure to interparental conflict may affect adolescent dating relationships in a sample of 391 adolescents ages 14 to 18 years. Boys exposed to greater parental discord were more likely to view aggression as justifiable in a romantic relationship, had more difficulty managing anger, and believed that aggressive behavior was more common in their peers' dating relationships. Each of these variables in turn linked witnessing interparental conflict to higher levels of verbal and physical aggression toward their own romantic partners. Interparental conflict was not related to girls' aggressive behavior. These data support the value of targeting cognitive and emotional processes in prevention programs designed to reduce dating violence and suggest that such programs will be strengthened by focusing on peer influences as well.

*keywords:* interparental conflict, aggression, romantic relationships, adolescents, peer relationships

Considerable progress has been made in understanding the association between interparental conflict and child maladjustment (see Grych & Fincham, 2001). In particular, there have been significant advances in identifying the characteristics of conflict that are most stressful for children and describing processes that may mediate the impact of conflict on children's functioning (Crockenberg & Langrock, 2001; Davies & Cummings, 1998; Grych, Fincham, Jouriles, & McDonald, 2000). However, one of the limitations of this literature is that most studies have examined a narrow range of child outcomes, primarily internalizing and externalizing behavior problems. Although documenting a link between conflict and child psychopathology clearly is important, a thorough understanding of the impact of interparental discord on children's development depends on expanding the type of outcomes assessed.

Observing how their parents manage anger and conflict may be particularly likely to affect children's socioemotional development. Recent studies support this idea, reporting associations between interparental conflict and attach-

ment quality (e.g., Frosch, Mangelsdorf, & McHale, 2000), peer relationships (Parke et al., 2001), and children's mental representations of family relationships (Grych, Wachsmuth-Schlaefler, & Klockow, 2002; Shamir, Schudlich, & Cummings, 2001). Interparental conflict also may have significant implications for an important developmental task in adolescence: establishing healthy romantic relationships. Because dating parallels marriage in a number of ways—both are relationships between individuals of equal status that involve emotional and sexual intimacy—adolescents' observations of their parents' interactions provide a salient model for relating to a boyfriend or girlfriend. Given that one of the most significant challenges for developing satisfying romantic relationships is managing the disagreements that inevitably arise in a couple, adolescents' experiences with interparental conflict are likely to have particular relevance for their dating relationships.

Although research on the sequelae of exposure to interparental conflict has not systematically assessed adolescent romantic relationships, studies of dating violence and the long-term effects of child maltreatment provide evidence for a link between aggression in the home and in dating relationships (for a review, see Wekerle & Wolfe, 1999). Many, but not all, of these investigations indicate that adolescents who witness or directly experience abuse in the family are more likely to act in controlling, hostile, and abusive ways toward dating partners. These studies typically have examined fairly severe forms of interparental aggression and have not always distinguished it from other types of abuse that occur in families, such as physical and sexual child abuse. Consequently, the existence of an association between less intense expressions of interparental conflict and teen dating behavior has not been established.

Understanding the causes of abuse in adolescent romantic relationships is important for applied as well as theoretical

---

Kristen M. Kinsfogel and John H. Grych, Department of Psychology, Marquette University.

Kristen M. Kinsfogel is now at the Student Health Center, University of California—Irvine.

This study is based on the Kristen M. Kinsfogel's doctoral dissertation and supported by a grant from the National Institute of Mental Health to John H. Grych. We thank Mary Kohl for facilitating data collection at the school as well as the teachers and students who participated. We also extend our appreciation to the undergraduate research assistants who worked on the study.

Correspondence concerning this article should be addressed to John H. Grych, Department of Psychology, Marquette University, P.O. Box 1881, Milwaukee, WI 53201-1881. E-mail: john.grych@marquette.edu

reasons. Aggression is surprisingly common in these relationships, with 10 to 40% of adolescents typically reporting that they have been physically aggressive toward a dating partner (e.g., Bergman, 1992; Malik, Sorenson, & Aneshensel, 1997; O'Keefe, 1997). Research on adult partner violence indicates that physical aggression is preceded by verbally or emotionally abusive behavior earlier in the relationship (e.g., Murphy & O'Leary, 1989); thus, adolescents who become aggressive in their dating relationships may set a course for a continuing pattern of hostility and aggression toward others. Because adolescents are just beginning to develop ways of relating to dating partners, it is a time when they may be most open to learning constructive strategies for managing interpersonal conflict. Identifying factors that give rise to abusive behavior thus can provide critical information for efforts to prevent violence in close relationships.

Conceptual models have been developed in both the interparental conflict and dating violence literatures that address how exposure to discord in the home may lead to hostile, controlling, or abusive behavior in other relationships. Theories designed to understand the effects of parental conflict on children have focused primarily on intrapersonal processes such as cognitive appraisals, affect regulation, and coping behavior as potential mediators (e.g., Davies & Cummings, 1994; Grych & Fincham, 1990). In contrast, research on dating violence has been guided primarily by social learning models that posit modeling or reinforcement as mechanisms by which interparental aggression leads to dating aggression (e.g., Capaldi & Crosby, 1997; Riggs & O'Leary, 1996). These literatures have developed relatively independently and there has been little cross-pollination of ideas between them; however, there are some commonalities in the processes proposed to link interparental and dating aggression. Specifically, conceptual models in both domains propose that cognitive and emotional factors play important roles.

### Cognitive Factors

How children perceive and interpret interparental conflict is held to shape their emotional and behavioral responses to conflict and to affect their adjustment more broadly (see Grych & Cardoza-Fernandes, 2001; Grych et al., 2000). However, most of the cognitive factors investigated to date (e.g., appraisals of threat and self-blame) have been linked more closely to internalizing than externalizing problems and thus may be less useful for understanding dating aggression. An exception is a recent study showing that "aggressogenic" cognitions, or beliefs that aggression is normative and justifiable, mediated the association between interparental conflict and teacher ratings of aggression in a sample of 7- to 13-year-old children (Marcus, Lindahl, & Malik, 2001).

Research on dating violence similarly has investigated attitudes about aggression. Riggs and O'Leary (1989, 1996) proposed that adolescents who witness aggressive behavior between their parents are more likely to view it as acceptable and consequently to be more likely to act abusively

when conflicts arise with a romantic partner. Although their model includes other potential mediators as well, attitudes about aggression have been the most consistent predictor of dating aggression (e.g., O'Keefe, 1997; Riggs & O'Leary, 1996; but see Cano, Avery-Leaf, Cascardi, & O'Leary, 1998). Thus, both the interparental conflict and dating violence literatures indicate that perceiving aggressive or abusive behavior as justifiable is an important element in the link between interparental conflict and dating behavior.

### Affect Regulation

Cognitive processes alone are unlikely to explain why adolescents exposed to greater interparental conflict engage in abusive behavior in dating relationships. Conflict is an emotionally charged event, and individuals must be able to manage their affective arousal if they are to constructively resolve their differences. Witnessing parental conflict also is an emotional event for children, and Davies and Cummings (1994) argued that frequently observing interparental conflict will make children more emotionally reactive over time. Increased reactivity, in turn, has been associated with increased internalizing and externalizing behavior problems in children (e.g., Davies, Harold, Goeke-Morey, & Cummings, 2002).

Riggs and O'Leary (1989) also included emotional regulation in their model of the causes of dating aggression, but empirical research on dating violence has paid little attention to affect. An exception is a study by Wolfe, Wekerle, Reitzel-Jaffe, and Lefebvre (1998) that examined links between child maltreatment, which included exposure to interparental violence, physical abuse, and sexual abuse, and abusive behavior toward dating partners in a large sample of Canadian high school students. Wolfe et al. (1998) found that interpersonal hostility mediated the association between child maltreatment and dating aggression for girls and had an additive effect for boys. These findings provide initial evidence that emotional regulation, particularly the regulation of anger, plays a role in understanding the causes of dating violence.

### Peers

Although there are conceptual and empirical bases for including cognitive and emotional processes in a model of the effects of parental conflict on dating aggression, focusing solely on intrapersonal factors is likely to be insufficient because it fails to take into account adolescents' social context. Peers become increasingly important influences in adolescence, providing models for behavior and shaping individuals' norms and values regarding social interactions (e.g., Capaldi, Dishion, Stoolmiller, & Yoerger, 2001; Connolly & Goldberg, 1999). Consequently, how friends handle conflict in their own dating relationships may be as important—or perhaps even more important—than parents. Dating is an important topic of conversation among adolescents (Connolly & Goldberg, 1999; Simon, Eder, & Evans, 1992), and the extent to which peers approve or disapprove of controlling, abusive behavior toward dating partners may

exert a strong pull on adolescent behavior. However, few studies have examined the role of peers in shaping aggressive behavior in dating relationships.

Capaldi et al. (2001) examined potential peer influences on dating aggression in a longitudinal investigation in which they observed 17- to 18-year-old males talking with their best friends. They reported that hostile and derogatory comments about women predicted boys' aggression toward dating partners at ages 20–23 years, even after accounting for prior levels of antisocial and delinquent behavior. Levandosky, Huth-Bocks, and Semel (2002) investigated the role of social support from peers in predicting dating aggression and found that peers can influence adolescents' dating relationships for better or for worse. Higher levels of peer support predicted greater dating aggression in 14- to 16-year-old adolescents from more violent families, but for adolescents from families low in domestic violence, peer support was associated with lower levels of aggression. Taken together, these findings suggest that if an adolescent's friends view aggressive behavior as normative or even praiseworthy, such behavior will be more likely to occur; in contrast, if peers value and encourage treating dating partners with respect, then abusive behavior will be less likely to occur. Further, adolescents may select into peer groups with congruent value systems: Adolescents from aggressive homes may be drawn to peers who are accepting of aggression, whereas those from low-conflict families may befriend those who view aggression negatively (see also Capaldi et al., 2001).

The goal of the present study was to test an integrative model of the impact of parental conflict on adolescent dating behavior that draws on both the interparental conflict and dating violence literatures. We included adolescents' beliefs about aggression and anger regulation as mediators because they have been emphasized by theoretical models in both domains and have received promising empirical support. These factors have not been examined together in a single study, however, so the extent to which they contribute uniquely to predicting abusive behavior in dating relationships is unknown. Adolescents' perception of the level of aggression in their friends' dating relationships was included as a third mediator as a way to assess the influence of peers on dating behavior. We assessed dating aggression broadly in this study, including hostile, threatening, and demeaning behaviors in addition to physical aggression because such behavior is more common than overt violence in adolescence (Wolfe et al., 1998) and is a precursor of physical aggression in close relationships (Murphy & O'Leary, 1989).

The study also offers two methodological improvements on prior research. First, we utilized structural equation modeling to estimate the paths between conflict, the mediators, and dating aggression. Structural equation modeling offers the important advantage of estimating associations between latent variables without error and therefore provides a more sensitive test of their interrelationships. Second, we examined whether the mediators predicted dating aggression after accounting for the level of conflict in the relationship. Because measures of dating aggression reflect the frequency

of conflict in a relationship as well as the occurrence of specific behaviors, it is not clear whether particular processes specifically predict abusive behavior or simply the degree of conflict that occurs in a relationship. To address this limitation, we tested whether the cognitive, emotional, and peer factors are related to conflict, aggression, or both.

## Method

### *Participants*

The sample consisted of 391 adolescents 14 to 20 years old (205 girls, 186 boys) who were students at a public high school in a mid-sized midwestern city. Most of the participants (67%) were 15 or 16 years old, with smaller numbers aged 14 (14%), 17 (12%), and 19–20 (1%). The sample was diverse with regard to ethnicity: 51% of the adolescents were of European American descent, 21% were African American, 21% Latino, 3% Native American, and 2% Asian. No information about socioeconomic status was collected for the study, but the school population as a whole encompasses a wide range of family income. Nearly all of the youths in the sample had begun dating (89%); although a small percentage had not, all students were included in the study because similar processes are proposed to lead to aggression against dating partners and friends of the opposite sex (Wolfe et al., 1998).

### *Procedure*

The parents of students enrolled in social studies classes were sent a letter describing the study and requesting them to return a consent form indicating whether their children would be allowed to participate. Students who received parental permission were then asked to take part in the study, and those who were interested also provided their written consent. Most students received parental permission (>80%), but a small number were absent on the day the questionnaires were completed or chose not to participate, resulting in a final sample that included approximately 75% of the students in the classes. Participants completed questionnaire packets during their social studies classes and typically took 45 min to 1 hr to finish. Although participants did not receive compensation for completing the survey, members of the research team returned to each classroom to share some of the results with the students and discuss their relevance for understanding their own dating relationships.

### *Measures*

*Interparental aggression.* The Conflict Tactics Scale (CTS; Straus, 1979) was used to assess adolescents' reports of the level of verbal and physical aggression exhibited by each of their parents toward the other. Participants rated how frequently each of 15 behaviors (including "raised voice or yelled at the other" and "pushed, grabbed, or shoved") had occurred in the past year on a 7-point scale ranging from 1 (*never*) to 7 (*more than 20 times*). Scores on the Verbal Aggression and Physical Aggression scales were summed for fathers and mothers separately and used as indicators of the conflict construct. The CTS is a widely used measure of aggression in the family with strong psychometric properties; coefficient alpha in this sample was .91 for mothers' aggression and .88 for fathers' aggression.

*Dating aggression.* The Conflict in Relationships Scale<sup>1</sup> (CIR; Wolfe, Reitzel-Jaffe, Gough, & Wekerle, 1994) was used to assess coercive and aggressive behavior in dating relationships. The CIR was developed specifically for use with adolescents and includes milder forms of aggression that are likely to be more common than violent behavior in teen dating relationships as well as more severe types of abuse. The CIR asks respondents to indicate how frequently they and their partner (or, for those who have not dated, an opposite-sex friend) engaged in a variety of positive and negative behaviors on a 4-point scale ranging from 1 (*never*) to 4 (*more than three times*). Aggressive behavior is assessed with two scales: Negative Communication (15 items), which taps verbally or emotionally abusive behavior (e.g., “insulting, ridiculing in front of others, using a hostile tone of voice”), and Abuse/Coercion (13 items), which assesses physically aggressive behavior (e.g., “hitting, kicking, destroying something of value”) and sexual coercion (e.g., “kissing partner against their wishes”). Three items representing more severe forms of sexual aggression were omitted from the questionnaire used in this study at the request of the school. Coefficient alpha in this sample was commensurate with that reported by Wolfe et al. (1994): .88 for Negative Communication; .83 for Abuse/Coercion.

*Conflict in dating relationships.* In order to keep assessment of the occurrence of conflict with a partner as distinct as possible from measurement of the kinds of behaviors adolescents engaged in during the conflicts, we asked participants to indicate how often they had arguments with their dating partner on a 6-point scale ranging from 1 (*never*) to 6 (*daily*) and to estimate the number of arguments they had had with their partner in the past month. These two items were then used as indicators of the dating conflict construct. The correlation between the items was .55.

*Beliefs about aggression.* Participants’ beliefs about the justifiability of acting aggressively toward a dating partner were assessed with the Attitudes about Dating Index (ADI; Foo & Margolin, 1995). The ADI asks respondents to indicate how justifiable it would be for a man or woman to slap or hit his or her girl/boyfriend in two types of situations: The Humiliation subscale includes items such as “your girl/boyfriend makes you look like a fool in front of your friends,” and “you learn that your boy/girlfriend is having an affair,” and the Self-Defense scale includes items such as “your boy/girlfriend hits you” and “your girl/boyfriend comes at you with a knife.” Each item is rated on a 7-point scale ranging from 1 (*unjustifiable*) to 7 (*justifiable*). Alpha coefficients on the Humiliation scale in this sample were .91 for boys’ behavior and .94 for girls’ behavior; on the Self-Defense scale, coefficient alpha was .69 for boys and .84 for girls.

*Anger regulation.* Participants’ tendency to experience and express anger was assessed with the Trait Anger scale (TAS; Spielberger, Jacobs, Russel, & Crane, 1983). This measure conceptualizes trait anger as a fairly stable individual characteristic distinct from respondents’ current mood. It includes 15 items rated on a 4-point scale ranging from 1 (*almost never*) to 4 (*almost always*). Sample items include “I am quick tempered” and “When I get mad, I say nasty things.” Coefficient alpha in this sample was .91.

*Peer dating aggression.* Because participants were promised anonymity, we were not able to directly assess the level of aggression occurring in their friends’ dating relationships. Rather, our goal was to measure the participants’ perceptions of the frequency of verbal and physical aggression among their peers. We did this in two ways. First, we selected 8 items from the CIR representing verbally or physically aggressive behaviors that may occur in dating relationships (“yelling at/insulting”; “threatening to hit or throw something at partner”; “throwing objects at partner”; “push-

ing/shaking/shoving”; “slapping/pulling hair”; “kissing partner against their will”; “hitting/kicking/punching something”; “hitting/kicking/punching partner”). Participants were asked to indicate on a 4-point scale ranging from 1 (*never*) to 4 (*often*) how often they believed that each behavior occurred in their friends’ dating relationships. Coefficient alpha for this scale was .92. Second, they were presented with the same eight behaviors and asked to write down the number of friends that they knew had experienced each of the behaviors with a dating partner. Participants were instructed to consider only situations in which they had directly observed the behavior or a friend had told them it had occurred. Coefficient alpha was .79 for this scale.

The second measure is likely to provide a conservative estimate of peers’ dating aggression because it requires that participants have direct knowledge of their friends’ experiences; abusive or coercive interactions often take place in private, and many teens may not tell their friends about them. In contrast, responses on the first scale may be affected by participants’ own beliefs and experiences with aggression, and it is possible that more aggressive teens may overestimate the occurrence of abuse in their friends’ relationships. However, what teens believe happens in their friends’ relationships may have a more powerful effect on them than what actually happens, particularly as they are likely to have only limited knowledge of what actually happens. Thus, although neither measure may be a veridical report of dating aggression among their friends, together they provide an estimate of adolescents’ perceptions of significant behaviors in their peer group.

## Results

The adolescents in the sample reported engaging in fairly high levels of verbally aggressive behavior in their dating relationships. For example, 20% acknowledged that they had insulted, ridiculed, or made fun of their partners in front of others. Physical aggression also was not uncommon: 19% reported that they had pushed, shoved, or shook their partners, and 17% had hit, punched, or kicked a boyfriend or girlfriend. These levels of aggression are comparable to those reported in other studies of high school students (see Wekerle & Wolfe, 1999). Girls’ scores on the Negative Communication ( $M = 11.5$ ,  $SD = 8.94$ ) and Abuse/Coercion ( $M = 3.58$ ,  $SD = 5.32$ ) scales were significantly higher than boys’ scores ( $M = 8.93$ ,  $SD = 8.86$ ;  $M = 2.36$ ,  $SD = 4.46$ , respectively),  $t(365) = 2.77$ ,  $p < .01$ , for Negative Communication, and  $t(371) = 2.40$ ,  $p < .02$ , for Abuse/Coercion. Adolescents reported a range of interparental conflict. The majority reported that one parent had insulted the other during an argument (63%), and many had seen or heard a parent threaten to hit or throw something at the other (43%). A somewhat smaller percentage reported that a parent had pushed, shoved, or grabbed the other parent during a conflict (31%), but relatively few had witnessed more severe levels of physical aggression. For example, 17% reported that a parent had kicked, hit, or bit the other parent, and 12% indicated that one parent had threatened to use a knife or gun. Although girls ( $M = 111.03$ ,  $SD = 121.01$ ) reported more verbal and physical aggression

<sup>1</sup> The CIR is an earlier form of the Conflict in Adolescent Dating Relationships Inventory (CADRI; Wolfe, Scott, Wekerle, Grasley, & Straatman, 2001).

between their parents than did boys ( $M = 89.87, SD = 104.49$ ), this difference was not statistically significant ( $p > .10$ ).

Because several prior studies of dating violence have found gender differences in the associations between aggression in the home and in dating relationships (e.g., O’Keefe, 1997; Riggs & O’Leary, 1996), we conducted Box’s M test to evaluate whether the pattern of correlations among the variables was similar for boys and girls. This test showed that the associations among the measures of conflict, dating aggression, and the proposed mediators were significantly different for boys and girls,  $F(91, 145,315) = 2.18, p < .01$ . Therefore, we analyzed the data separately for each gender.

According to Baron and Kenny’s (1986) criteria, for a variable to act as a mediator of the association between a predictor and a criterion measure, all three variables must be significantly correlated. As Table 1 shows, for boys the interparental conflict measures generally had positive and significant correlations with their attitudes about the justifiability of aggression, anger regulation, and perceptions of the occurrence of abuse in their peers’ dating relationships. These proposed mediators, in turn, consistently predicted emotional/verbal abuse and physical abuse/coercion toward dating partners. In contrast, the measures of interparental conflict did not predict dating aggression by girls. Interparental conflict was correlated with anger regulation and perceptions of peer dating aggression, which in turn were correlated with dating aggression, but unlike boys, girls’

attitudes about aggression were not related either to interparental conflict or dating behavior. The absence of significant correlations between girls’ reports of parental conflict and dating behavior means that there is no association to mediate, and consequently tests of the mediational model were conducted only for boys.

The first model that we tested proposed that beliefs about the justifiability of aggression, anger regulation, and peer norms mediated the link between interparental conflict and dating aggression (see Figure 1). Structural equation modeling (SEM) was conducted with Analysis of Moment Structures software (AMOS 4.0; Arbuckle & Wothke, 1999) using maximum likelihood estimation. SEM was used because it offers distinct advantages over multiple regression analyses for testing mediational hypotheses. Most importantly, it provides error-free estimation of the relations between constructs (latent variables) and affords simultaneous testing of all of the pathways specified in a given model. We formed latent variables using two indicators for each construct, with the exception of anger regulation, for which only one measure was obtained (see Figure 1). Table 1 shows that the measures used as indicators of each latent variable were significantly correlated and thus supports their inclusion in the structural equation model.

The first step in testing the mediational model was to examine the direct association between the interparental conflict and dating aggression latent variables (see Baron & Kenny, 1986). Consistent with the correlations among the observed variables, the pathway between these constructs

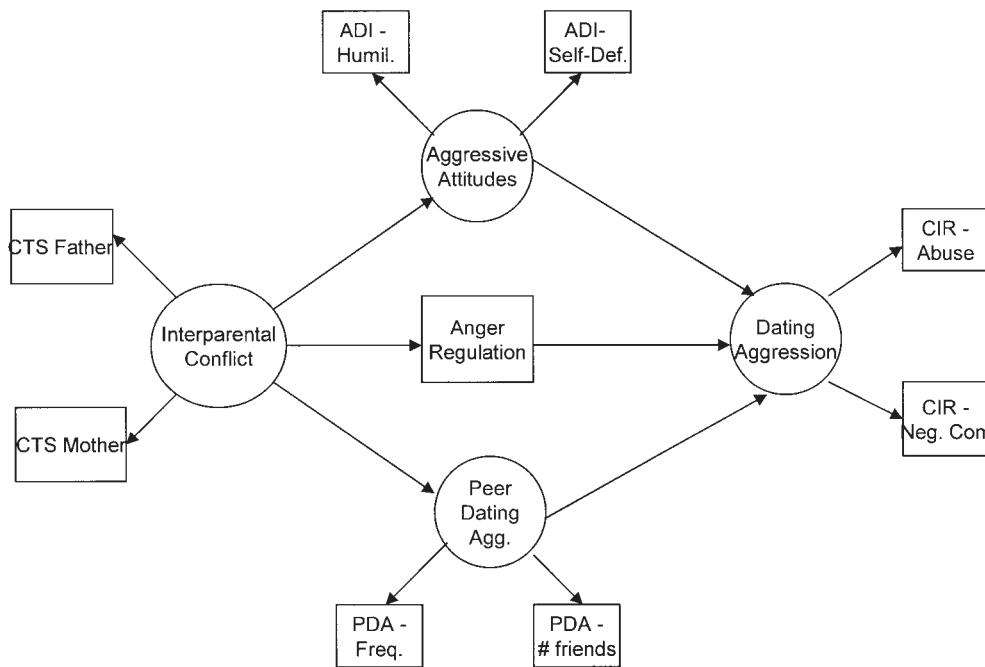


Figure 1. Hypothesized mediational model. CTS = Conflict Tactics Scale; ADI = Attitudes About Dating Index; Humil. = Humiliation; Self-Def. = Self-Defense; Agg. = Aggression; CIR = Conflict in Relationships Scale; Neg. Com. = Negative Communication; PDA = Peers’ Dating Aggression Scale; Freq. = frequency.

Table 1  
Descriptive Data for Study Variables

Variable	1	2	3	4	5	6	7	8	9	10	11	M	SD
1. CTS father		.54*	.12	.09	.21*	.27*	.34*	.08	.09	.15	.21*	52.05	65.50
2. CTS mother	.50*		.05	.03	.12	.11	.05	.12	.12	.07	.05	58.26	72.24
3. ADI Self-Defense	.13	.31*		.55*	.09	.07	.07	.06	.04	.07	.04	11.95	5.50
4. ADI Humiliation	.12	.30*	.61*		.13	.19*	.20	.16*	.19*	.09	.04	25.58	14.68
5. TAS	.26*	.38*	.25*	.32*		.30*	.22*	.20*	.22*	.17*	.04	30.90	9.85
6. PDA frequency	.30*	.34*	.17*	.32*	.23*		.51*	.31*	.31*	.26*	.09	5.92	6.04
7. PDA No. friends	.09	.12	.12	.20*	.18*	.33*		.13	.11	.12	.10	2.18	1.33
8. CIR Abuse	.26*	.32*	.45*	.50*	.38*	.52*	.19*		.62*	.44*	.17*	3.58	5.31
9. CIR Negative Communication	.17*	.23*	.29*	.37*	.37*	.44*	.28*	.70*		.50*	.21*	11.51	8.94
10. Conflict frequency	.08	.13	.08	.19*	.32*	.33*	.27*	.44*	.61*		.57*	2.18	1.33
11. Conflict number/month	.01	.24*	.12	.27*	.23*	.33*	.12	.37*	.42*	.53*		2.80	5.44
M	40.72	44.94	8.77	21.34	28.93	4.73	11.65	2.36	8.93	1.76	1.75		
SD	53.94	63.50	5.18	13.39	11.10	5.64	18.18	4.46	8.86	1.33	3.67		

Note. Correlations for girls appear above the diagonal; boys' correlations appear below the diagonal. *Ns* range from 141 to 177. CTS = Conflict Tactics Scale (sum of Verbal Aggression and Physical Aggression scales); ADI = Attitudes About Dating Index; TAS = Trait Anger Scale; PDA = Peers' Dating Aggression Scale; CIR = Conflict in Relationships Scale; conflict frequency = reports of frequency of conflict in dating relationships. Conflict number/month = reports of the number of conflicts in dating relationships in the past month. \**p* < .05.

(.39) was significant and of moderate magnitude (see Table 2). Next, we assessed the direct associations between the latent variables for interparental conflict and each of the three proposed mediators (beliefs about aggression, anger regulation, and peer dating aggression). As Table 2 shows, each of the paths was significant and of approximately the same magnitude (.49 to .53). Finally, the direct associations between the mediators and the dating aggression latent variable were all significant, with the paths representing beliefs about the justifiability of aggression (.48) and peer dating aggression (.41) roughly twice as large as the anger regulation path (.23; see Table 2).

Mediation is documented when the association between the predictor and criterion variables decreases significantly after the mediators are taken into account, and the association between the mediators and the criterion variable remains significant (Baron & Kenny, 1986). Therefore, in the final step, the cognitive, affective, and peer constructs were added to a model linking interparental conflict with dating behavior (see Figure 1). When the proposed mediators are included in the model, the path between interparental con-

flict and dating aggression was reduced from .39 to -.08 (*ns*). Aggressive Attitudes, Anger Regulation, and Peer Dating Aggression all were significantly associated with dating aggression (path coefficients ranged from .20 to .47) in the full model (see Figure 2). Together, the variables accounted for 54% of the variance in dating aggression. Although a chi-square test suggests that the model should be rejected,  $\chi^2(21, N = 21) = 35.89, p = .02$ , this test is highly sensitive to sample size and often leads to rejection of good-fitting models (Kline, 1998). In fact, more robust goodness-of-fit measures indicate that the model fit the data well: goodness of fit (GFI) = .96, adjusted goodness of fit (AGFI) = .91, root mean square error of approximation (RMSEA) = .062, and ratio of chi-square to degree of freedom  $\chi^2 = 1.71$ .

Examining the direct and indirect effects of these variables indicates that interparental conflict had a negligible direct effect (.08) on dating aggression but a strong indirect effect (.54) that operated through boys' tendency to view aggression in a romantic relationship as justifiable, to have difficulty controlling anger, and to report higher levels of abuse in their friends' dating relationships. Because the pathways between each mediator and dating behavior represent the strength of the relationship after accounting for all of the other paths in the model, these data indicate that these cognitive, emotional, and peer factors are each uniquely related to coercive, abusive behavior in dating relationships. As a final test, we refit the model after omitting the direct path from interparental conflict to dating aggression. This improved the fit of the model slightly but nonsignificantly (GFI = .96, AGFI = .92, RMSEA = .059,  $\chi^2/df = 1.65$ ), which provides further confidence that the relation between interparental conflict and dating aggression is wholly accounted for by the mediators.

Next, we added dating conflict to the model to examine whether the proposed mediators were linked specifically to aggression or to conflict more broadly. The significant, moderately strong correlations between the measures of

Table 2  
Paths Between Latent Constructs

Pathway	Standardized path coefficient
1. Interparental conflict → Dating aggression	.39**
2a. Interparental conflict → Beliefs about aggression	.49**
2b. Interparental conflict → Anger regulation	.49**
2c. Interparental conflict → Peer relationships	.53**
3a. Beliefs about aggression → Dating aggression	.48**
3b. Anger regulation → Dating aggression	.23*
3c. Peer relationships → Dating aggression	.41**

\**p* < .05. \*\**p* < .01.

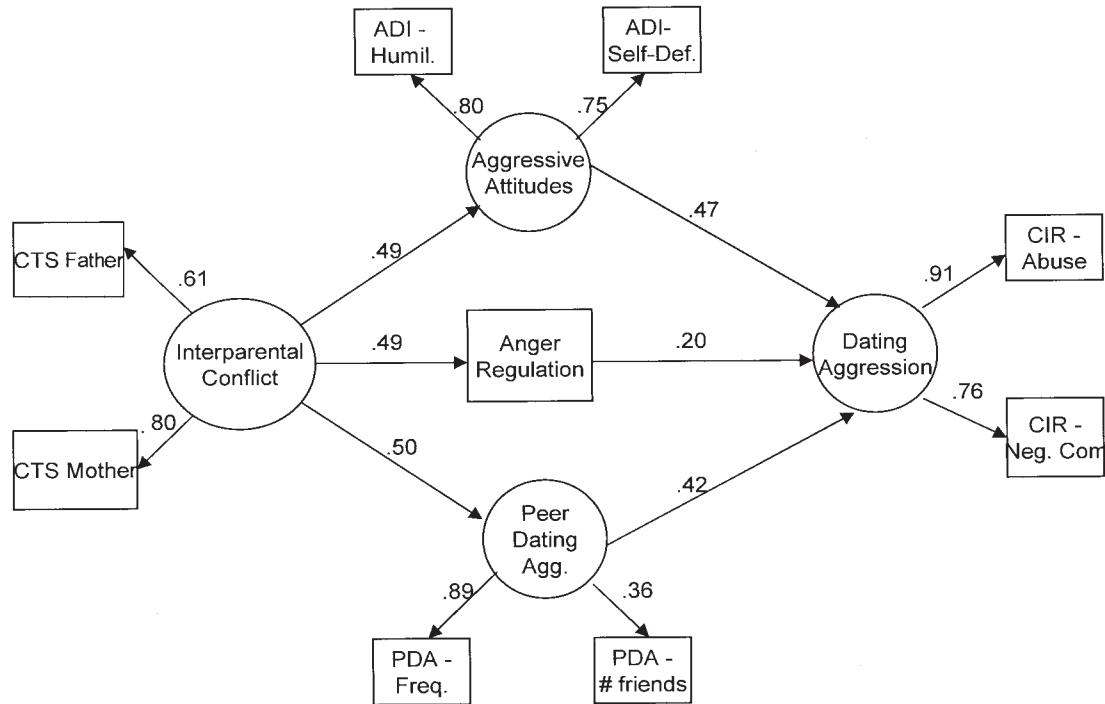


Figure 2. Mediation model predicting boys' dating aggression. CTS = Conflict Tactics Scale; ADI = Attitudes About Dating Index; Humil. = Humiliation; Self-Def. = Self-Defense; Agg. = Aggression; CIR = Conflict in Relationships Scale; Neg. Com. = Negative Communication; PDA = Peers' Dating Aggression Scale; Freq. = frequency.

dating conflict and aggression (see Table 1) support the possibility that the measures of dating abuse may be reflecting the level of discord in the relationship and thus raise the question of whether the proposed mediators predict conflict in relationships more generally rather than abuse per se. Figure 3 presents the standardized path coefficients for this model. This figure indicates that the proposed mediators predicted different aspects of adolescents' dating behavior. Anger regulation was significantly related to the level of conflict in the relationship (.27) but did not predict dating aggression (.07), whereas beliefs about aggression continued to relate significantly to dating aggression (.40) but did not predict conflict (.01). Perceptions of peers' dating aggression predicted both conflict (.35) and aggression (.26) in dating relationships. As in the first model tested, the pathways from interparental aggression to both relationship conflict (-.01) and aggression (.08) were nonsignificant with the mediators included and thus are omitted in Figure 3. Together, the predictors accounted for 24% of the variance in dating conflict and 74% of the variance in dating aggression. Goodness-of-fit measures indicated that the overall fit of this model was acceptable: GFI = .93; AGFI = .86; RMSEA = .087;  $\chi^2/df = 2.39$ . As above, the fit of a model omitting direct paths from interparental conflict to dating conflict and aggression was nearly identical (GFI = .93; AGFI = .86; RMSEA = .085;  $\chi^2/df = 2.38$ ), indicating that these paths were unnecessary.

### Discussion

This study offers insight into the processes that may explain how exposure to interparental conflict leads to abusive behavior in adolescent boys' romantic relationships. We tested a model integrating intrapersonal and interpersonal factors as mediators and found that for boys, cognitive, affective, and peer factors all mediated the link between their reports of interparental and dating aggression. The data further indicate that the processes associated with the perpetration of aggression are somewhat different than those that lead to increased levels of conflict in dating relationships. However, interparental conflict was not associated with girls' reports of aggression toward their dating partners; thus, mediational models were not tested for girls. The different pattern of results for boys and girls is consistent with several prior studies showing that exposure to interparental aggression is a better predictor of dating behavior for boys than for girls (e.g., DeMaris, 1987; Foo & Margolin, 1995; Gwartney-Gibbs, Stockard, & Brohmer, 1987). Because this study is cross-sectional, it does not show that interparental aggression actually causes dating aggression, but the findings have a number of important implications for understanding this association.

First, consistent with conceptual models of the effects of interparental conflict on children, the data suggest that social-cognitive processes are important for understanding

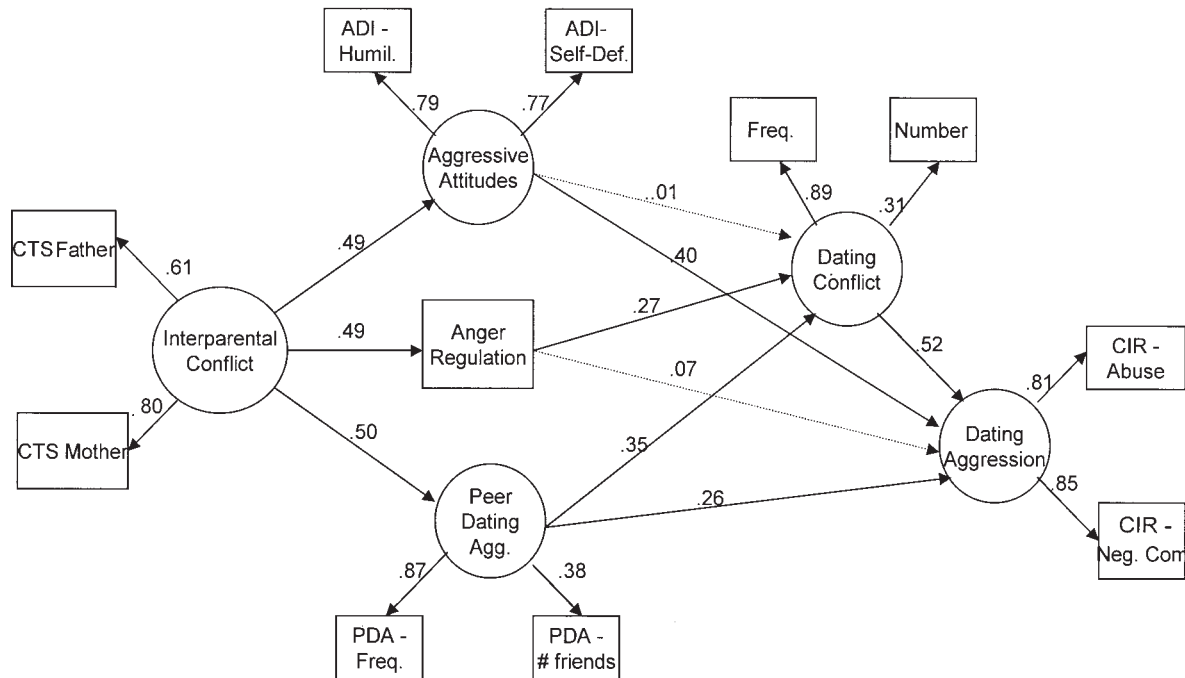


Figure 3. Mediation model predicting boys' dating conflict and aggression. CIS = Conflict Tactics Scale; ADI = Attitudes About Dating Index; Humil. = Humiliation; Self-Def. = Self-Defense; Agg. = Aggression; CIR = Conflict in Relationships Scale; Neg. Com. = Negative Communication; PDA = Peers' Dating Aggression Scale; Freq. = frequency.

links between aggression in the family and in dating relationships, at least for boys. Boys who witnessed higher levels of aggressive interparental conflict were more likely to perceive aggression as justifiable in a romantic relationship, and this belief in turn predicted reports of greater hostile and abusive behavior toward dating partners. Attitudes about aggression did not predict the degree of conflict that occurred in the relationship, however. These findings, which replicate Riggs and O'Leary's (1996) data from a sample of young adults, support a specific pathway between this cognitive construct and dating aggression. It appears that observing parents engage in aggressive or coercive behavior can affect boys' beliefs about what kind of behavior is appropriate or defensible in close relationships (Marcus, Lindahl, & Malik, 2001; Riggs & O'Leary, 1989). Although many adolescents (and adults) may have aggressive impulses when they are embroiled in a conflict, the belief that such behavior is morally unacceptable may serve as a critical deterrent for most. In contrast, individuals who believe that aggression is justifiable are more likely to act on their impulses.

Girls' beliefs about aggression were not correlated with their exposure to interparental conflict, a finding consistent with several prior studies (e.g., Bookwala, Frieze, Smith, & Ryan, 1992; O'Keefe, 1998; Tontodonato & Crew, 1992). It is not clear why witnessing interparental aggression would have a different effect on boys' and girls' attitudes, but one possible explanation lies in gender differences in socializa-

tion patterns. Davies and Lindsay (2001) proposed that differences in the extent to which boys and girls are taught to emphasize communal (relationship-oriented) goals versus agentic (individually focused) goals may lead them to respond differently to interparental conflict. Girls who witness parental conflicts may be more sensitive to the potential harm conflict may cause to the relationship, whereas boys may focus more on the functionality of aggression for achieving dominance. Thus, boys who witness high levels of conflict may interpret aggression as a way to achieve one's aims in a relationship, whereas girls may perceive aggression as something that is damaging to relationships.

Children from more conflictual homes also reported experiencing and expressing higher levels of anger. Anger regulation, in turn, predicted boys' reports of abusive behavior toward their dating partners. However, when the frequency of conflict in dating relationships was included in the model, anger predicted conflict but not aggression. Thus, it appears that difficulty managing anger is related to aggression because it increases the likelihood that conflicts and arguments will arise in a close relationship. Witnessing interparental conflict is an emotionally arousing experience for children, and this finding suggests that frequent exposure to conflict may lead children to become more emotionally reactive and to have difficulty regulating their affective states (Davies & Cummings, 1994). Alternatively, it may be the experience of anger per se that is critical. In their specific emotions model, Crockenberg and Langrock (2001)

argued that children who experience anger when witnessing interparental conflict are more likely to develop externalizing behavior problems, which may include aggression directed at peers and dating partners. Because anger was the only emotion assessed in this study, we cannot determine whether emotional reactivity in general or anger specifically is responsible for the links with dating conflict. This is an important question to investigate in future research.

Although the magnitude of the paths between anger regulation and dating aggression were weaker than those involving attitudes about aggression or peers' dating aggression, two factors may have attenuated these associations. First, anger regulation was assessed with a single measure and thus may have been measured less reliably than the other mediators, each of which had two indicators. Second, in contrast to the attitudes measure, questions about anger regulation were not specific to a dating context. It is possible that asking how reactive adolescents are when conflict arises in close relationships may produce stronger associations with dating aggression.

Finally, this study provides evidence that peer relationships play a significant role in understanding how interparental conflict may lead to aggression toward dating partners. Boys and girls from more conflictual homes reported that their friends engaged in higher levels of verbal and physical aggression with their dating partners than did adolescents from less conflictual homes. Perceived peer aggression in turn predicted reports of both the level of conflict and aggression in dating relationships. Youths from more aggressive homes appear to associate with peers who are more inclined to engage in abusive behavior, and these peer groups may develop their own "norms" that support or even encourage aggressive treatment of dating partners. One mechanism through which these norms may be made salient is in discussions about dating. Romantic relationships are a frequent topic of conversation among teenagers (e.g., Connolly & Goldberg, 1999), and Capaldi et al. (2001) showed that adolescent boys' tendency to engage in hostile, demeaning talk about girls predicted violent behavior toward dating partners several years later.

Alternatively, this finding may reflect the possibility that boys who are more aggressive simply view their peers as more aggressive as well, or that reporting aggression among their peers may serve as a justification for their own behavior. Because we did not directly assess how aggressive the participants' peers were toward their dating partners, we do not know the extent to which boys' reports reflect their actual behavior vs. their perceptions (or misperceptions) of that behavior. However, because the peer measure uniquely predicted aggression after accounting for beliefs about the justifiability of aggression, it is unlikely that the peer measures are simply another way of tapping aggressive attitudes. Further investigation of the role that peers play in shaping adolescents' attitudes and behavior toward dating partners holds considerable promise for understanding the genesis of dating aggression. Gaining a better understanding of this role will require identifying participants' friends and assessing their dating behavior directly and devising meth-

ods to tap into the ways that peers may encourage or discourage coercive behavior toward dating partners.

Some limitations of this investigation should be noted. All data were gathered using self-report measures from a single rater, and mono-informant bias may inflate associations among the constructs. Whereas adolescents are in the best position to report on their attitudes and beliefs, it would be useful to have independent measures of anger regulation and peer dating behavior. In addition, although participants answered the questionnaires anonymously, they may have underreported the level of aggression in their relationships. Finally, as noted above, cross-sectional data can support or fail to support mediational hypotheses but cannot address questions of causality.

This study suggests that exposure to interparental conflict and aggression affects boys' development in a variety of ways that, taken together, undermine their ability to resolve interpersonal conflicts and establish healthy dating relationships. Moreover, it provides support for specific pathways between particular aspects of boys' socioemotional functioning and particular dimensions of dating behavior. These findings have a number of implications for efforts to reduce conflict and violence in adolescent dating relationships. Prevention programs designed to reduce dating violence in adolescence tend to focus on intraindividual factors that may give rise to interpersonal aggression (e.g., attitudes about violence, communication skills, anger control; for a review, see Wekerle & Wolfe, 1999), and the present study supports the value of addressing boys' beliefs about the justifiability of aggressive behavior and ability to regulate anger. Few programs, however, directly address peer influences on dating behavior. The current data indicate that adding an explicit focus on peer group attitudes may make existing prevention programs stronger by changing the context in which individual attitudes and skills function. By promoting positive and respectful ways of interacting with dating partners, prevention programs situated in high schools have the potential to shape the culture of the school (see also Emery, 2001). If most teens become intolerant of coercion and abuse in dating relationships, they may provide a form of social control that decreases aggression in dating relationships. Although the tendency of aggressive youths to form antisocial peer groups that tolerate dating violence is unlikely to be eliminated by such a cultural change, an environment that actively discourages coercive or abusive behaviors may have an effect on many individuals whose attitudes and emotional regulation may otherwise put them at risk for becoming abusive.

## References

- Arbuckle, J. L., & Wothke, W. (1999). *Amos 4.0 user's guide*. Chicago: Smallwaters.
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, *51*, 1173-1182.

- Bergman, L. (1992). Dating violence among high school students. *Social Work, 37*, 21–27.
- Bookwala, J., Frieze, I. H., Smith, C., & Ryan, K. (1992). Predictors of dating violence: A multivariate analysis. *Violence and Victims, 1*, 297–311.
- Cano, A., Avery-Leaf, S., Cascardi, M., & O'Leary, K. D. (1998). Dating violence in two high school samples: Discriminating variables. *Journal of Primary Prevention, 18*, 431–446.
- Capaldi, D. M., & Crosby, L. (1997). Observed and reported psychological and physical aggression in young, at-risk couples. *Social Development, 6*, 184–206.
- Capaldi, D. M., Dishion, T. J., Stoolmiller, M., & Yoerger, K. (2001). Aggression toward female partners by at-risk young men: The contribution of male adolescent friendships. *Developmental Psychology, 37*, 61–73.
- Connolly, J., & Goldberg, A. (1999). Romantic relationships in adolescence: The role of friends and peers in their emergence and development. In W. Furman, B. Brown, & C. Feiring (Eds.), *The development of romantic relationships in adolescence* (pp. 266–290). Cambridge, England: Cambridge University Press.
- Crockenberg, S., & Langrock, A. (2001). The role of emotion and emotional regulation in children's responses to interparental conflict. In J. Grych & F. Fincham (Eds.), *Interparental conflict and child development: Theory, research, and application*. (pp. 129–156). Cambridge, England: Cambridge University Press.
- Davies, P. T., & Cummings, E. M. (1994). Marital conflict and child adjustment: An emotional security hypothesis. *Psychological Bulletin, 116*, 387–411.
- Davies, P. T., & Cummings, E. M. (1998). Exploring children's emotional security as a mediator of the link between marital relations and child adjustment. *Child Development, 69*, 124–139.
- Davies, P. T., Harold, G. T., Goeke-Morey, M., & Cummings, E. M. (2002). Child emotional security and interparental conflict. *Monographs of the Society for Research in Child Development, 67*, (3, Serial No. 270).
- Davies, P. T., & Lindsay, L. L. (2001). Does gender moderate the effects of marital conflict on children? In J. Grych & F. Fincham (Eds.), *Interparental conflict and child development: Theory, research, and application* (pp. 129–156). New York: Cambridge University Press.
- DeMaris, A. (1987). The efficacy of a spouse abuse model in accounting for courtship violence. *Journal of Family Issues, 8*, 291–305.
- Emery, R. E. (2001). Interparental conflict and social policy. In J. Grych & F. Fincham (Eds.), *Interparental conflict and child development: Theory, research, and application* (pp. 417–439). New York: Cambridge University Press.
- Foo, L., & Margolin, G. (1995). A multivariate investigation of dating aggression. *Journal of Family Violence, 10*, 351–377.
- Frosch, C. A., Mangelsdorf, S. C., & McHale, J. L. (2000). Marital behavior and the security of preschooler-parent attachment relationships. *Journal of Family Psychology, 14*, 144–161.
- Grych, J. H., & Cardoza-Fernandes, S. (2001). Understanding the impact of interparental conflict on children: The role of social cognitive processes. In J. Grych & F. Fincham (Eds.), *Interparental conflict and child development: Theory, research, and applications* (pp. 157–187). Cambridge, England: Cambridge University Press.
- Grych, J. H., & Fincham, F. D. (1990). Marital conflict and children's adjustment: A cognitive-contextual framework. *Psychological Bulletin, 108*, 267–290.
- Grych, J. H., & Fincham, F. D. (2001). *Interparental conflict and child development: Theory, research, and application*. Cambridge, England: Cambridge University Press.
- Grych, J. H., Fincham, F. D., Jouriles, E. N., & McDonald, R. (2000). Interparental conflict and child adjustment: Testing the mediational role of appraisals in the cognitive-contextual framework. *Child Development, 71*, 1648–1661.
- Grych, J. H., Wachsmuth-Schlaefler, T., & Klockow, L. L. (2002). Interparental aggression and young children's representations of family relationships. *Journal of Family Psychology, 16*, 259–272.
- Gwartney-Gibbs, P. A., Stockard, J., & Brohmer, S. (1987). Learning courtship violence: The influence of parents, peers, and personal experiences. *Family Relations, 36*, 276–282.
- Kline, R. B. (1998). *Principles and practice of structural equation modeling*. New York: Guilford Press.
- Levandosky, A. A., Huth-Bocks, A., & Semel, M. A. (2002). Adolescent peer relationships and mental health functioning in families with domestic violence. *Journal of Clinical Child and Adolescent Psychology, 31*, 206–218.
- Malik, S., Sorenson, S. B., & Aneshensel, C. S. (1997). Community and dating violence among adolescents: Perpetration and victimization. *Journal of Adolescent Health, 21*, 291–302.
- Marcus, N. E., Lindahl, K. M., & Malik, N. M. (2001). Interparental conflict, children's social cognitions, and child aggression: A test of a mediational model. *Journal of Family Psychology, 15*, 315–333.
- Murphy, C. M., & O'Leary, K. D. (1989). Psychological aggression predicts physical aggression in early marriage. *Journal of Consulting and Clinical Psychology, 57*, 579–582.
- O'Keefe, M. (1997). Predictors of dating violence among high school students. *Journal of Interpersonal Violence, 12*, 546–568.
- O'Keefe, M. (1998). Factors mediating the link between witnessing interparental violence and dating violence. *Journal of Family Violence, 13*, 39–57.
- Parke, R. D., Kim, M., Flyr, M., McDowell, D. J., Simpkins, S. D., Killian, C. M., & Wild, M. (2001). Managing marital conflict: Links with children's peer relationships. In J. Grych & F. Fincham (Eds.), *Interparental conflict and child development: Theory, research, and application* (pp. 291–314). Cambridge, England: Cambridge University Press.
- Riggs, D. R., & O'Leary, K. D. (1989). Theoretical model of courtship aggression. In M. A. Pirog-Good & J. E. Stets (Eds.), *Violence in dating relationships: Emerging social issues* (pp. 53–71). New York: Praeger.
- Riggs, D. R., & O'Leary, K. D. (1996). Aggression between heterosexual dating partners: An examination of a causal model of courtship aggression. *Journal of Interpersonal Violence, 11*, 519–540.
- Shamir, H., Schudlich, T. D., & Cummings, E. M. (2001). Marital conflict, parenting styles, and children's representations of family relationships. *Parenting: Science and Practice, 1*, 123–151.
- Simon, R., Eder, D., & Evans, C. (1992). The development of feeling norms underlying romantic love among adolescent females. *Social Psychology Quarterly, 55*, 29–46.
- Spielberger, C. D., Jacobs, G., Russel, S., & Crane, R. S. (1983). Assessment of anger: The State-Trait Anger Scale. In J. N. Butcher & C. D. Spielberger (Eds.), *Advances in Personality Assessment* (Vol. 2, pp. 159–187). Hillsdale, NJ: Erlbaum.
- Straus, M. A. (1979). Measuring intrafamily conflict and violence: The conflict tactics (CT) scales. *Journal of Marriage and the Family, 41*, 75–88.
- Tontodonato, P., & Crew, B. K. (1992). Dating violence, social learning theory, and gender: A multivariate analysis. *Violence and Victims, 7*, 3–14.

- Wekerle, C., & Wolfe, D. A. (1999). Dating violence in mid-adolescence: Theory, significance, and emerging prevention initiatives. *Clinical Psychology Review, 19*, 435–456.
- Wolfe, D. A., Reitzel-Jaffe, D., Gough, R., & Wekerle, C. (1994). *Conflicts in relationships: Measuring physical and sexual coercion among youth*. Available from the Youth Relationships Project, Department of Psychology, University of Western Ontario, London, Canada, N6A 5C2.
- Wolfe, D. A., Scott, K., Wekerle, C., Grasley, C., & Straatman, A. L. (2001). Development and validation of the Conflict in Adolescent Dating Relationships Inventory. *Psychological Assessment, 13*, 277–293.
- Wolfe, D. A., Wekerle, C., Reitzel-Jaffe, D., & Lefebvre, L. (1998). Factors associated with abusive relationships among maltreated and nonmaltreated youth. *Development and Psychopathology, 10*, 61–85.

Received March 20, 2003

Revision received September 23, 2003

Accepted January 12, 2004 ■

### **New Editor Appointed for *Journal of Occupational Health Psychology***

The American Psychological Association announces the appointment of Lois E. Tetrick, PhD, as editor of *Journal of Occupational Health Psychology* for a 5-year term (2006–2010).

As of January 1, 2005, manuscripts should be submitted electronically via the journal's Manuscript Submission Portal ([www.apa.org/journals/ocp.html](http://www.apa.org/journals/ocp.html)). Authors who are unable to do so should correspond with the editor's office about alternatives:

Lois E. Tetrick, PhD  
Incoming Editor, *JOHP*  
George Mason University  
Department of Psychology, MSN, 3F5  
4400 University Drive, Fairfax, VA 22030

Manuscript submission patterns make the precise date of completion of the 2005 volume uncertain. The current editor, Julian Barling, PhD, will receive and consider manuscripts through December 31, 2004. Should the 2005 volume be completed before that date, manuscripts will be redirected to the new editor for consideration in the 2006 volume.