

## **Characteristics of High-Risk Adolescents' Dating Violence**

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*Eighty-nine high-risk dating violent (DV) and non-dating violent (NDV) male and female adolescents were compared on several factors within the domains of behavioral problems, psychological adjustment, and parenting, in this exploratory investigation. Dating violence status was then regressed onto the significantly differing factors. DV males reported more violence against a past partner and marijuana usage in the past year, earlier onset of drug use other than marijuana, and elevated levels of externalization (together accounting for 58% of variance), whereas DV females reported elevated rates of internalization and having received less parental involvement, supervision, and behavioral control (together accounting for 35% of variance). Past dating violence for males and internalization for females accounted for significant unique variance. Findings, clinical implications, and directions for future research on high-risk adolescent dating violence are discussed.*

## ***Characteristics of High-Risk Adolescents' Dating Violence***

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***Dating violence is a very significant*** problem because of its timing, possible immediate and long-term effects, and alarming prevalence. Dating violence occurs at a life stage when romantic relationships are started and interactional styles that will serve in future intimate relationships are learned (Makepeace, 1986). Its sequelae include physical injury, post-traumatic stress disorder, lowered self-esteem and self-worth, psychosomatic reactions, depression, and school performance disruption (O'Leary & Cascardi, 1998; Sugarman & Hotaling, 1989). Surprisingly, there remains a paucity of research directly investigating dating violence among high-risk adolescents (i.e., adolescents with known involvement in multiple risk behaviors, such as substance abuse,

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aggression, truancy, and other delinquency or criminal-related problems), the subpopulation most at risk for its perpetration and use of violence in subsequent intimate partner relationships.

Chase, Treboux, O'Leary, and Strassberg (1998) found that 68% and 33% of high-risk females and males, respectively, reported being violent against their current (or most recent) dating partner. This prevalence rate is considerably higher than the 15% to 35% prevalence found among normative adolescents (i.e., those attending regular high schools and not exhibiting major behavior problems)(see O'Leary & Cascardi, 1998). In addition, longitudinal research conducted in a life-span developmental framework has repeatedly found that high-risk status in adolescence is predictive of partner violence in early adulthood (Huesman, Eron, Lefkowitz, & Walden, 1984; Mihalic, Elliot, & Menard, 1994).

### CURRENT STUDY

The current exploratory study is a comparison of dating violent (DV) and non-dating violent (NDV) high-risk adolescents on factors drawn from the dating violence and delinquency literature, followed by an examination of the relative contributions of those factors that discriminate between the two groups. Identifying and examining the relative import of characteristics associated with dating violence in this subpopulation will provide an extension to the one study that directly examined high-risk adolescents' dating violence (Chase et al., 1998) as well as insights into the nature of dating violence among all adolescents, as differences are more clearly identified in deviant samples (see Compas, Hinden, & Gerhardt, 1995).

The factors examined in this study were those that have discriminated DV from NDV normative adolescents and/or have been linked to interpersonal violence among high-risk/delinquent adolescents. These factors fell into three domains: behavior problems (violence against past dating partners and same-gender peers, substance use), psychological adjustment (depression, stress response, internalizing and externalizing difficulties), and received parenting.

An association between perpetration of violence against current/most recent and past dating partners has been found in several studies (e.g., Cano, Avery-Leaf, Cascardi, & O'Leary, 1998; Deal & Wampler, 1986). For instance, Cano et al. (1998) found that violence perpetrated against a past dating partner discriminated currently DV from currently NDV adolescents in two different high school samples. Similarly, past violence against a same-gender peer is associated with present dating and future intimate partner vio-

lence (O'Leary, Malone, & Tyree, 1994; Riggs, O'Leary, & Breslin, 1990). In addition, alcohol use has repeatedly been found to be related to dating violence (LeJeune & Follette, 1994; Foo & Margolin, 1995) and to increasing the likelihood of becoming DV (O'Keefe, 1997). Indeed, O'Keefe, Brockopp, and Chew (1986) found that alcohol was involved in 40% of dating violence cases in their sample. Drug use, although studied less relative to alcohol use, also has been found to be associated with dating violence (Gwartney-Gibbs, Stockard, & Bohmer, 1987; Tontodonato & Crew, 1992). Several psychological adjustment factors, including stress and depression, have also been found to be correlated with being violent against a dating partner (Marshall & Rose, 1990; Sugarman & Hotaling, 1989). Furthermore, poor parent-adolescent relationships are associated with dating violence, especially low parental support and involvement (Simons, Lin, & Gordon, 1998).

Factors found to be linked with and/or to influence interpersonal violence among high-risk and delinquent adolescents substantially overlap with those reviewed above for dating violence among normative adolescents. Indeed, repeated associations have been found between high-risk/delinquent adolescents' interpersonal violence and their prior perpetration of violence, substance use, weak parent-child bonds, and poor parental supervision (Bernburg & Thorlindsson, 1999; Farrington, 1994; Jessor, Donovan, & Costa, 1991; Loeber, Farrington, Stouthamer-Loeber, Van Kammen, & Welmoet, 1998; Saner & Ellickson, 1996; Wagner, 1996). In addition, high-risk/delinquent adolescents' poor psychological adjustment, in terms of depression and internalization and externalization, is a consistent predictor of their interpersonal violence (Compas, Connor, & Hinden, 1998; Loeber et al., 1998).

## METHOD

### Participants

Ninety-five adolescents (96% of enrolled students over a 2-year period) attending a high school dropout prevention program participated in the study (61 male, 34 female)(see Chase et al., 1998 because there is 80% overlap between that and the current sample). Participants were referred to the alternative setting due to behavioral problems in their home schools with aggression, other behavior/delinquency-related problems, and truancy. Six participants were excluded from the study due to missing data. Therefore, the final sample consisted of 89 adolescents (58 male, 31 female) who ranged in age from 14 to 18 years (male:  $M = 16.4$ ,  $SD = 1.3$ ; female:  $M = 16.3$ ,  $SD = 1.2$ ),

and were Caucasian (69%), African American (14%), Hispanic (9%), or of other/mixed ethnic background (8%). DV or NDV groups were created based on presence of violence against their current/most recent dating partner (using the Conflict Tactics Scale [Straus, 1979] as described below); 68% of females and 33% of males were classified as DV.

## Measures

*Behavior problems.* Two instruments were used to measure violence and substance problems. First, the 18-item *Conflict Tactics Scale* (CTS) (Straus, 1979) served to measure acts of perpetrated physical violence (as a continuous score) against same-gender peers (a best friend, a disliked peer) and the previous dating partner with whom they had the most conflict, as well as to differentiate participants into DV and NDV groups based on presence of violence against the current/most recent dating partner.<sup>1</sup> The CTS is the most commonly used validated instrument of interpersonal violence among adolescents and young adults (see Caulfield & Riggs, 1992). Participants endorsed the frequency with which they used each tactic (*never*, 1; *once or twice*, 2; *3-5 times*, 3; *6-10 times*, 4; *11 times or more*, 5) against persons in the aforementioned four relationships during the most recent 12 months of the relationship. Violence was measured with the following six items: “pushed, grabbed or shoved”; “slapped”; “kicked, bit or hit”; “choked”; “beat up”; “threatened with a knife or gun.”<sup>2</sup> Responses were set to the median values (e.g., 4 assigned to an endorsement of *3-5 times*) and summed to form the continuous scores. Cronbach’s alphas were very good for the past dating partner (.89, .92), friend (.89, .96), and nonfriend (.86, .91) relationships for males and females, respectively.

Second, the onset and frequency of substance use in the past year were measured using a measure developed for this study. This measure was modeled after a measure developed by O’Keefe (1997) but modified to include a larger response scale (to increase variability in responses) and a detailed list of specific drugs that were labeled in technical and slang/street terms (e.g., heroin, smack, and horse as examples for opioids). Participants answered two separate sets of questions regarding use of alcohol, marijuana, cocaine, amphetamines, sedatives, hallucinogens, opiates, inhalants, designer drugs, steroids, and other illegal/nonprescription drugs. Participants first responded to the question, “At what age did you first use . . .” for each class of substances. They responded using a 7-point scale (*never*; *younger than 10 years*; *10-11 years*; *12-13 years*; *14-15 years*; *16-17 years*; *18-20 years*). Participants then reported the frequency they used each class of substances over the

prior 12 months on another 7-point scale anchored to a range of times (*never; 1-2 days in past year; about 6 days in past year; 1-2 days per month in past year; 1-2 days per week in past year; 3-5 days per week in past year; every day in past year*). For the frequency measure, alcohol and marijuana had adequate response variability to remain as independent factors. In contrast, there was not adequate response variability for cocaine, amphetamines, hallucinogens, opioids, inhalants, designer drugs, and steroids, independently. As a result, these drugs were collapsed into one category labeled "other drugs." For consistency between the two substance measures, the age of onset was also considered in terms of alcohol, marijuana, and other drugs. Therefore, age of onset and days of use in past year (which was set to a 1-year time frame) were computed for alcohol, marijuana, and other drugs.

*Psychological adjustment.* Four instruments were used in the measurement of psychological adjustment. First, internalization and externalization were measured using the Youth Self-Report (YSR) (Achenbach & Edelbrock, 1987). The YSR is a well-validated, psychometrically sound 119-item, true-false, self-report instrument used in the measurement of adolescent internalization (i.e., withdrawal, somatic complaint, anxiety, depression, obsession, and compulsion) and externalization (i.e., hostility, delinquency, aggression, hyperactivity). Internalization and externalization scales were computed for each respondent according to Achenbach and Edelbrock's (1987) age-specific prescriptions.

Second, depression was measured using the Beck Depression Inventory (BDI) (Beck, 1978). The BDI is a widely used and accepted 21-item, forced-choice inventory of depression. Internal consistency of the measure in the current study was good: Cronbach's alphas were .92 and .80 for males and females, respectively.

Third, stressful life events relevant to adolescents (e.g., "I had trouble with teachers at school" and "My parents divorced or separated") were measured using the Life Events Checklist. This instrument assesses the occurrence of 36 events and has been used productively in investigations of adolescent dating violence (Marshall & Rose, 1990). Reliability was good; Cronbach's alphas were .92 for males and .94 for females.

Fourth, participants' stress symptoms were measured with the Stress Response Scale for Adolescents (SRSA) (Curtis & Adams, 1991). This scale measures physiological, behavioral, and cognitive-emotional components of stress response experienced by youth ages 14 to 21 years. Participants responded to 37 items (e.g., "I feel overwhelmed," "My muscles are tight," "I feel keyed up") on a 5-point Likert-type scale (0 = *not at all* to 5 = *extremely so*). The SRSA has demonstrated excellent discriminant and construct valid-

ity, and its internal consistency was good in this study—Cronbach's alphas were .90 for males and .85 for females.

*Parenting factors.* The 26-item Parenting Style instrument developed by Lamborn, Mounts, Sternberg, and Dornbusch (1991) was used to measure participants' perceptions of the parenting they had received since beginning adolescence to the time of the administration. Participants responded to the first 18 parenting quality-related items on a 5-point Likert-type scale (*strongly agree* to *strongly disagree*), the next two items concerning their perceived freedom to go or stay outside of the home on a 7-point scale, and the last six items regarding parental effort to try to or actually know the participant's activities on a 3-point scale (i.e., *don't try or know*, *try or know a little*, *try or know a lot*). Five empirically derived scales were computed according to Lamborn et al.'s established scoring methods: parental involvement ("My parents spend time just talking with me"), psychological autonomy granting ("My parents keep pushing me to think independently"), parental control ("My parents let me make my own plans"), parental strictness ("My parents say that you shouldn't argue with adults"), and parental supervision ("My parents know where I go at night"). Internal consistencies (i.e., Cronbach's alphas) ranged from good to adequate for males and females, respectively, on parental involvement (.80 and .86), psychological autonomy granting (.70 and .63), parental control (.77 and .73), parental strictness (.60 and .60), and parental supervision (.80 and .85).

### Procedure

The instruments were completed as part of a larger assessment battery that was conducted over two 1.5-hour sessions that on average were separated by 1 week. Participants completed all pencil-and-paper instruments anonymously and independently as part of a small group, following consent from the participants and their parents. Several research staff members were present during all administrations to ensure participants' understanding and privacy, as well as response integrity and comprehensiveness. Background and demographic information and data on peer-directed violence, perceived parenting, internalization-externalization, and stressful life events were collected during the first assessment session. Dating violence, substance use, depression, and stress (events and responses) data were measured in the second assessment session. Twenty dollars were paid to each participant.

## Analyses

Two sets of analyses were conducted. Males and females were examined separately because several studies have found gender differences in dating violence perpetration (see O'Leary & Cascardi, 1998). First, analysis of variance (ANOVAs) were performed on behavior problems, psychological adjustment, and parenting factors to test for DV-NDV group differences. Prior to the ANOVAs, however, preliminary analyses were conducted to rule out the influence of potentially confounding variables. There was only one significant group difference (i.e., NDV females were significantly more often than DV females to have been raised by both biological parents)(see Table 1).<sup>3</sup> Subsequent investigation revealed that this factor did not covary with any dependent variables. The means, standard deviations, *F* values, and effect sizes for the ANOVA comparisons are provided in Table 2.

The series of ANOVAs were followed by simultaneous logistic regressions predicting violence against the current/most recent partner from the factors that emerged as significantly different between the DV and NDV groups. These regressions were conducted to understand better the combined and unique contributions of the significant factors.

Given the exploratory nature of this investigation and the small participant subgroups, procedures were not conducted to reduce possible Type I error and effect sizes were presented to allow examination of possible Type II error. Also, as is common with the measurement of deviant behavior, the three CTS-derived violence scores and the three substance use scores were square root-transformed to improve mild skewness and kurtosis problems (Tabachnick & Fidell, 1989).

## RESULTS

### DV and NDV Group Comparisons

*Behavior problems.* For males, there were three significant group differences that emerged. DV males, relative to their NDV counterparts, reported perpetrating a significantly greater amount of violence against their former dating partner, more frequent marijuana use during the prior year, and earlier onset of other drug use. There were no female or additional male DV-versus-NDV group differences.

*Psychological adjustment.* DV males were significantly elevated on the externalization score relative to NDV males, whereas DV females were sig-



**TABLE 1: Group Means, SD, and Percentages on Background Variables for Dating Violent and Non-Dating Violent Males and Females**

Variable	Males						Comparison	Females						
	DV (n = 19)			NDV (n = 39)				DV (n = 21)			NDV (n = 10)			
	M	SD	p	M	SD	p		M	SD	P	M	SD	p	Comparison
Age	16.3	1.1		16.6	1.3		$F(1, 56)$ $F < 1, NS$	16.3	1.1		16.4	1.4		$F(1, 29)$ $F < 1, NS$
Education <sup>a</sup>	11.0	1.1		10.5	1.0		$F = 2.0, NS$	10.9	1.3		10.4	1.0		$F < 1, NS$
Relationship <sup>b</sup>	7.2	4.9		6.4	4.4		$F < 1, NS$	8.9	3.7		7.7	3.2		$F < 1, NS$
Family size	3.0	1.3		3.2	1.2		$F < 1, NS$	4.2	1.7		4.1	1.5		$F < 1, NS$
Race <sup>c</sup>			63			69	$\chi^2(1, N = 58)$ $\chi^2 = .2, NS$			67		80	$\chi^2(1, N = 31)$ $\chi^2 = .5, NS$	
Raised by <sup>d</sup>			67			64	$\chi^2 = .0, NS$			24		60	$\chi^2 = 3.9^*$	
Parents' relationship <sup>e</sup>			37			54	$\chi^2 = 1.5, NS$			24		10	$\chi^2 = .8, NS$	
Mother's education <sup>f</sup>			89			74	$\chi^2 = 1.8, NS$			81		70	$\chi^2 = .5, NS$	
Father's education <sup>f</sup>			58			56	$\chi^2 = .01, NS$			57		80	$\chi^2 = 1.6, NS$	

NOTE: DV = dating violent, NDV = non-dating violent, *M* = mean, *SD* = standard deviation, *NS* = not significant.

a. Grade level.

b. Length of current/most recent dating relationship in months.

c. Percent Caucasian relative to ethnic minority.

d. Percent raised by biological parents.

e. Percent married.

f. Percent high school graduates or equivalent.

\**p* = .05.

**TABLE 2: Group Differences Between Dating Violent and Non-Dating Violent Males and Females**

Variable	Males				<i>F</i> (1, 56)	r	Females				<i>F</i> (1, 29)	r
	<i>DV</i> (n = 19)		<i>NDV</i> (n = 39)				<i>DV</i> (n = 21)		<i>NDV</i> (n = 10)			
	M	SD	M	SD			M	SD	M	SD		
Behavior problems												
Violence (acts)												
Nonfriend	26.9	19.0	26.9	16.6	<i>F</i> < 1, <i>NS</i>	.00	8.2	12.8	15.6	19.5	<i>F</i> < 1, <i>NS</i>	.22
Friend	11.1	13.4	7.4	13.0	<i>F</i> < 1, <i>NS</i>	.14	5.9	4.7	2.1	3.9	<i>F</i> = 1.6, <i>NS</i>	.15
Ex-partner	15.0	15.7	.3	0.9	<i>F</i> = 34.8***	.62	16.3	13.2	7.8	12.5	<i>F</i> = 1.8, <i>NS</i>	.24
Substance use (onset)												
Alcohol	11.5	1.7	12.0	2.1	<i>F</i> < 1, <i>NS</i>	.13	11.9	1.6	12.9	2.4	<i>F</i> = 1.7, <i>NS</i>	.24
Marijuana	11.9	1.8	12.5	1.9	<i>F</i> = 1.4, <i>NS</i>	.15	13.4	1.5	13.4	2.6	<i>F</i> < 1, <i>NS</i>	.01
Other	10.9	0.9	11.7	1.3	<i>F</i> = 6.0*	.31	11.1	0.9	11.1	0.7	<i>F</i> < 1, <i>NS</i>	.00
Substance use (frequency)												
Alcohol	95.8	73.8	114.2	99.9	<i>F</i> < 1, <i>NS</i>	.09	86.8	84.6	96.2	83.0	<i>F</i> < 1, <i>NS</i>	.04
Marijuana	262.3	125.8	190.0	129.3	<i>F</i> = 4.1*	.26	128.3	120.4	133.2	1.4	<i>F</i> = 2.1, <i>NS</i>	.26
Other	1.7	1.2	1.4	0.8	<i>F</i> < 1, <i>NS</i>	.16	1.3	0.6	1.4	0.7	<i>F</i> < 1, <i>NS</i>	.08

(continued)

42 **TABLE 2 Continued**

Variable	Males				<i>F</i> (1, 56)	<i>r</i>	Females				<i>F</i> (1, 29)	<i>r</i>
	<i>DV</i> (n = 19)		<i>NDV</i> (n = 39)				<i>DV</i> (n = 21)		<i>NDV</i> (n = 10)			
	M	SD	M	SD			M	SD	M	SD		
Psychological adjustment factors												
Externalization	34.1	11.1	27.8	11.3	<i>F</i> = 3.8*	.25	35.5	10.6	33.2	10.2	<i>F</i> < 1, <i>NS</i>	.11
Internalization	30.5	11.2	26.0	11.0	<i>F</i> = 2.1, <i>NS</i>	.19	36.1	11.3	23.3	8.6	<i>F</i> = 10.0**	.51
Depression	9.8	11.6	7.4	8.1	<i>F</i> < 1, <i>NS</i>	.13	13.5	7.2	12.1	7.5	<i>F</i> < 1, <i>NS</i>	.09
Life events	14.4	2.6	14.8	2.8	<i>F</i> < 1, <i>NS</i>	.07	13.6	2.7	13.8	1.9	<i>F</i> < 1, <i>NS</i>	.04
Stress response	33.8	19.2	24.8	18.4	<i>F</i> = 3.0, <i>NS</i>	.23	42.4	25.1	40.5	26.2	<i>F</i> < 1, <i>NS</i>	.04
Parenting factors												
Parental involvement	31.5	5.8	30.0	7.1	<i>F</i> < 1, <i>NS</i>	.11	29.9	6.9	36.1	6.4	<i>F</i> = 5.7*	.40
Autonomy granting	29.9	6.0	29.8	6.4	<i>F</i> < 1, <i>NS</i>	.00	30.2	6.5	32.8	5.4	<i>F</i> = 1.2, <i>NS</i>	.20
Behavioral control	15.5	3.7	15.3	3.2	<i>F</i> < 1, <i>NS</i>	.03	15.9	4.4	19.4	3.8	<i>F</i> = 4.6*	.37
Parental strictness	4.2	1.9	3.4	1.5	<i>F</i> = 2.5, <i>NS</i>	.21	4.1	2.4	4.7	3.3	<i>F</i> < 1, <i>NS</i>	.10
Parental supervision	11.3	2.9	11.8	3.1	<i>F</i> < 1, <i>NS</i>	.08	11.8	3.0	14.4	3.2	<i>F</i> = 5.0*	.38

NOTE: *DV* = dating violent, *NDV* = non-dating violent, *r* = effect size index, *NS* = not significant. Substance use onset is presented in years of age, substance use frequency is presented in number of days.

\**p* < .05. \*\**p* < .01. \*\*\**p* < .001.

nificantly higher than their NDV counterparts on the internalization score. No other psychological adjustment differences were found for males and females. In sum, only the omnibus psychological adjustment scores were significantly different between the DV and NDV groups versus the more specific measures of depression and stress. Furthermore, male subgroups differed on the “acting out” adjustment factors, whereas female subgroups differed on the “acting in” adjustment factors.

*Parenting factors.* There were no significant differences between DV and NDV males on the five parenting factors. In contrast, DV females differed from NDV females on the parenting factors of involvement, behavioral control, and supervision. Hence, DV relative to NDV females perceived their parents to be less involved, less open and mutual with decision making, and less frequently monitoring their whereabouts and well-being, whereas the two male groups did not perceive the parenting they had received to be significantly different.

### Multiple Regression Analyses

Simultaneous logistic regressions predicting violence against the current/most recent partner from the factors that emerged as significantly different between the DV and NDV groups were then conducted. Therefore, the independent variables were violence against the former dating partner, past-year marijuana use, age of first drug use other than marijuana, and externalization for males, and internalization, parental involvement, parental behavioral control, and parental supervision for females. As can be seen in Table 3, multicollinearity for the variables entered into the analyses was not a significant concern (see Tabachnick & Fidell, 1989). Females' parenting variables, however, were moderately intercorrelated.

The overall  $R^2$  for the male regression was significant:  $F(4, 53) = 14.1, p < .001$ . The four factors together accounted for 58% of the variance and only violence against a former dating partner accounted for significant unique variance with a standardized regression coefficient of .66 ( $t = 6.8, p < .001$ ). The other standardized regression coefficients were .06 for past year marijuana use, .12 for age of first other drug use, and .11 for externalization. A similar pattern was found in the regression for females; the overall  $R^2$  was significant,  $F(4, 26) = 3.5, p < .05$ , with the four factors accounting for 35% of the variance and internalization being the only significant unique predictor with a standardized regression coefficient of .44 ( $t = 2.4, p < .05$ ). The other standardized regression coefficients were: .02 for parental involvement, .18 for parental behavioral control, and .14 for parental supervision.

**TABLE 3: Correlations Among Regression Predictors for Males and Females**

	<i>Males</i>		
	<i>Ex-Partner Violence</i>	<i>Frequency of Marijuana Use</i>	<i>Onset of Hard Drug Use</i>
Frequency of marijuana use	.25*		
Onset of hard drug use	.30*	.14	
Externalization	.08	.08	.09
	<i>Females</i>		
	<i>Internalization</i>	<i>Parental Involvement</i>	<i>Parental Behavioral Control</i>
Parental involvement	-.51*		
Parental behavioral control	.16	.44*	
Parental supervision	-.20	.60*	.68*

\* $p < .05$ .

## DISCUSSION

The present study was the first investigation into the predictors of dating violence among high-risk adolescents. The collective findings suggest that future researchers and prevention/intervention developers working with high-risk adolescent males should focus efforts on those with an earlier onset of drug use, elevated use of marijuana and rates of externalization, and, especially, histories of being violent against a past dating partner. The difference between the DV and NDV males on past dating violence—which was not accounted for by differences in relationship length—was striking; NDV males reported near-zero mean acts of perpetrated violence against a former partner, whereas DV males reported perpetrating an average of 15 violent acts against their past dating partner. This association between violence against past and subsequent dating partners is parallel but substantially amplified relative to findings found on normative adolescents (e.g., Makepeace, 1986) and young adults who were classified high risk as adolescents (e.g., Mihalic et al., 1994).

Similar to dating violence research on normative adolescents, the findings on females were different from those on males. Specifically, DV relative to NDV females were more troubled with global internalization symptoms (such as a sum of withdrawal, anxiety, and depression symptoms) and per-

ceived themselves to have received less parental care. Because of the cross-sectional nature of the data, these findings may be interpreted in several ways. DV females may have physically aggressed against their current/most recent partners reactively because of their accumulated internalized distress, possibly consequent to feeling less cared for by their parents. This interpretation is possible given the negative correlation between parental involvement and internalization and is consonant with previous research on delinquent adolescents (e.g., Dishion, Patterson, & Griesler, 1994), which revealed that parental involvement and monitoring played a critical role in whether adolescents progressed further on antisocial trajectories and enacted additional, novel maladaptive behaviors (i.e., dating violence). Another possibility is that DV females' reports of poor parenting may be interpreted as their perception of authoritative parenting or it may speak to the limitations confronted by single parents (71% of DV females were raised by a single mother), who are potentially faced with less ability to share in and monitor their daughter's activities because of increased personal demands (e.g., work). Alternatively, females' dating violence and elevated rates of internalization may be subsequent and reactive to being victimized by male partners. As such, females' dating violence may have been primarily self-defensive. Females' greater use of interpartner violence for self-defense is well documented in the literature (e.g., O'Keefe, 1997). In this scenario, their perception of poorer parenting may be either a trauma reaction, where they see others as untrustworthy and uncaring, or reflect poor parental care that if it had been better, may have to some extent prevented them from being in an abusive relationship.

The current study has sampling, design, and statistical limitations that highlight directions for future research. Future research should be conducted on larger samples of male and female high-risk adolescents. In the current study, as one can see from the sample and effect sizes, there were problems with power. Specifically, there was only an approximate .65 and .35 chance of rejecting the null hypothesis (with alpha at .05) for medium effect sizes (i.e.,  $r = .30$ ) for males and females, respectively. Increased power due to larger sample sizes may have an impact most clearly on findings regarding the females, where effect sizes for several behavior problem factor comparisons approached the medium range.

In addition, future research should use a prospective design with increased collection of data on the context of the dating violence. The prospective design and increased contextual information will greatly increase our ability to understand the sequential ordering, causality, and roles of such factors as partners' violence and substance use. Future researchers should also increase their measurement of factors that are more common to high-risk adolescents,

including antisocial/delinquent behaviors (e.g., stealing, assaults on strangers), major psychopathology (e.g., post-traumatic stress disorder, attention deficit hyperactivity disorder; see Loeber et al., 1998), present and historical environmental influences (e.g., family relationships and abuse, peer rejection, and social incompetence), as well as possible proximal factors (e.g., jealousy and related emotional arousal, anger, desire to get control over partner, seriousness of and satisfaction with dating relationship; Cano et al., 1998; O'Keefe, 1997). Relatedly, multivariate models should be examined because several recent studies have shown that the relationship between different variables and high-risk adolescents' violence is complex and may be mediated or moderated by other predictors (e.g., Loeber et al., 1998; Simons et al., 1998). Last, as mentioned earlier, significance levels were not adjusted relative to the number of comparisons conducted because of the exploratory nature of this study. Therefore, the reader must use caution in interpreting the results from this study because there may be inflated Type I error.

The findings from this study provide introductory information on the predictors of dating violence among high-risk adolescent males and females, which may stimulate much-needed future research on this population. Albeit challenging to work empirically and clinically with this subpopulation of adolescents (see Swenson & Kennedy, 1996), their high likelihood of perpetrating dating violence and suffering from its aftermath indicates that dating violence and delinquency researchers should channel some efforts in their direction.

## NOTES

1. There were no participants who did not have at least two dating partners that they could report on while completing the CTS.

2. The physical violence score was computed, consistent with recent dating violence research, using the two more severe moderate physical violence items and the four severe physical violence items (see Caulfield & Riggs, 1992). The authors decided on this more conservative scoring in response to the debate concerning what constitutes physical violence among adolescents, which had to be considered in the present study because of the relative deviance of the sample.

3. Being raised by both biological parents as opposed to being raised by one biological parent and a stepparent, two nonbiological parents, a single biological or nonbiological parent, grandparents, and various combinations of these caregivers.

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