Interpersonal Violence in Adolescence: Ecological Correlates of Self-Reported Perpetration

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What is This?
Interpersonal Violence in Adolescence

Ecological Correlates of Self-Reported Perpetration

Victoria L. Banyard
Charlotte Cross
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Although growing attention is being paid to the problem of teen dating violence, to date less is known about perpetrators of victimization. The current article used a subset of 980 adolescents aged 11 to 19 who were surveyed as part of a statewide community service coordinated through Cooperative Extension to survey all youth in target communities about risky health behaviors. The current article examined correlates of perpetration of either physical dating violence or sexual abuse across all levels of the ecological model (individual, family, and community factors). At the bivariate level, individual factors including substance use and low social responsibility, family factors including divorce, low parental monitoring, and low social support, and community variables such as low school attachment and neighborhood monitoring were associated with self-reported perpetration. At the multivariate level, gender and history of victimization were most significant in explaining variance in perpetration.

Keywords: teen; dating; violence; perpetration

Adolescent dating violence is an ongoing problem in this country (for reviews, see Lewis & Fremouw, 2001; Werkerle & Wolfe, 1999). Researchers are increasingly turning their attention to this issue, though more attention has been given to older adolescent and young adult samples, particularly

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college students as an at-risk group, and to the experiences of victims of dating violence. Literature on interpersonal violence has linked victimization to a variety of negative consequences including mental health concerns, physical health problems, and revictimization (Aguilar & Nightingale, 1994; Brookoff, O’Brien, Cook, Thompson, & Williams, 1997; Cambell, 2002; Gidycz, Coble, Latham, & Layman, 1993; Golding, 1999; Magdol et al., 1997; Smith, White, & Holland, 2003). Prevention of victimization and its negative effects requires also understanding perpetration. The current study sought to add to this literature by examining correlates of dating violence perpetration in a sample of younger adolescents and using an ecological model.

**Ecological Models of Dating Violence**

Both psychological and criminological researchers have utilized Bronfenbrenner’s ecological theory (Bronfenbrenner, 1979, 1986) to identify risk and protective factors that together affect and are affected by individuals. The ecological model is conceptualized as a series of concentric circles of influence, which include intrapersonal, family, peer, community, and wider societal influences on behavior and development. Foshee, Linder, MacDougall, and Bangdiwala (2001) describe its utility for examining risk factors for adolescent dating violence, and, indeed, the model helps to organize past research on dating violence. Past research has often examined such variables individually in studies of perpetrators. These studies tend to solely examine individual-level factors (Dye & Eckhardt, 2000; Eckhardt, Jamison, & Watts, 2002; Kreiter & Krowchuk, 1999) or else focus on only one level of the ecological model at a time (Arriaga & Foshee, 2004; Capaldi & Clark, 1998; Spencer & Bryant, 2000).

Results of such studies show depressed mood and low self-esteem are risk factors, though stronger links with partner aggression were found for girls but not boys (Capaldi & Crosby, 1997). Other variables including low personal power, problems with anger behaviors and control, insecure attachment style, substance use, and previous sexual and physical victimization have also been shown to be significant risk factors (e.g., Brookoff et al., 1997; Dye & Eckardt, 2000; Follingstad, Bradley, Helfff, & Laughlin, 2002; Richardson & Cambell, 1980; Sharpe & Taylor, 1999; Smith et al., 2003).

Gender, as a variable of interest, has not been consistently included in dating violence research. Little work has been done to examine differences in perpetration by boys and girls, beyond the important finding that the degree of violence and injuries sustained from female perpetration tends to
be significantly less than for male perpetration (Arriaga & Foshee, 2004; Foshee, 1996; Makepeace, 1986), that females report more severe forms of violence (e.g., Molidor & Tolman, 1998), and that females perpetrate more violence out of self-defense than do males (Foshee, 1996; Olday & Wesley, 1998). Much work remains to be done to examine correlates of female- and male-perpetrated dating violence across adolescence.

Family-level factors are also thought to play a significant role in adolescent interpersonal violence. Parental divorce is a relatively common phenomenon among adolescents (Glick, 1984; Kreider & Fields, 2002), and although effects are not uniformly negative, parental divorce and interparental conflict have been linked to a number of antisocial outcomes (Capaldi & Patterson, 1991; Carr & VanDeusen, 2002; Hetherington, Cox, & Cox, 1982; Neighbors, Forehand, & Bau, 1997). Although findings have not been uniform in associating parental divorce to dating violence, a number of theories would suggest that divorce is a significant risk factor for adolescent interpersonal violence (e.g., Capaldi & Patterson, 1991; McLanahan & Booth, 1989; Simons & Whitbeck, 1994; Stets & Straus, 1989). Parental support has also been examined as a risk factor in its absence or protective factor when present in adequate amounts. For instance, weak bonds to parents and harsh parenting practices have been associated with delinquent behavior more generally and dating violence specifically (e.g., Lavoie et al., 2002; Magdol, Moffitt, Caspi, & Silva, 1998; Sampson & Laub, 1993; Simons, Lin, & Gordon, 1998; Simons, Wu, Conger, & Lorenz, 1994). Positive parental involvement and warmth have been linked with lowered aggression and delinquency (e.g., Brendgen, Vitaro, Tremblay, & Lavoie, 2001; Simons & Johnson, 1994).

Neighborhoods may also provide monitoring, beyond the family, that could influence adolescent interpersonal violence. Social disorganization theory would suggest that lack of social control in some neighborhoods leaves them ineffective at preventing crime (Bursik & Grasmick, 1993; Cohen & Felson, 1979). Theories of collective efficacy would further sustain that neighborhood support may lead to interpersonal violence intervention including disclosure of victimization and protection of individuals from potential perpetrators (e.g., Browning, 2002). Related to this is whether adolescents who display a sense of social responsibility may use less interpersonal violence as such values have been linked to lower risk behaviors more generally (e.g., Fishbein & Perez, 2000; Ludwig & Pittman, 1999). The sole research to investigate the link between prosocial beliefs and dating violence perpetration (Foshee, Bauman, & Linder, 1999) failed to find an association.

A further, broader contextual factor relates to school attachment, as difficulties in school have been linked extensively to delinquency (Dishion,
Patterson, Stoolmiller, & Skinner, 1991; Jessor, Van Den Bos, Vanderryn, Costa, & Turbin, 1995). Strong adolescent attachment to school has been associated with less rule-violating behavior (Dornbush, Erickson, Laird, & Wong, 2001; Jessor et al., 1995).

Although most studies of correlates of dating violence have examined one or two risk factors, work by Foshee and colleagues (2001), on the other hand, has worked to examine multiple levels of the ecological model in combination. Foshee et al. successfully utilized an ecological framework to examine longitudinal predictors of adolescent dating violence. They found significance for alcohol use and having a friend who was a victim for female perpetrators and for acceptance of dating violence practices as a risk factor for males. They advocate for future studies that include macro-level factors, such as effects of neighborhood, school, poverty, and life event stress.

The present study considers the individual differences that result from cumulative protective and risk factors within Bronfennbrenner’s (1979, 1986) concentric circles of the ecological model. The current study hypothesized that gender would be a significant correlate of perpetration, with males reporting more perpetration than females. Perpetration was also expected to be correlated with an individual’s own experience of victimization and with mental health problems such as higher use of substances and depressive thoughts, low parental monitoring and support, parental divorce, and fewer ties to one’s community (e.g., lower perceived neighborhood monitoring, lower perceived neighborhood support, lower school attachment, and lower expressed sense of social responsibility). Exploratory analyses examined predictors of perpetration separately for males and females. Furthermore, building on work by Gutman, Sameroff, and Eccle (2002) and Bartko, Harper, and Weiss (1999), exploratory analyses examined composite indices of risk and protective factors. We hypothesized that higher numbers of risk factors would be related to greater risk for perpetration, whereas higher numbers of protective factors would predict lower risk for perpetration. As in the tradition of other criminological research (i.e., delinquency), dating violence perpetration may best be understood when examined through a range of both micro- and macro-level factors.

### Method

#### Procedures

The current analyses represent a secondary analysis of data collected as part of a community intervention and needs assessment project (the Teen
Assessment Project, TAP) originally developed by Small (e.g., Small & Kerns, 1993) in Wisconsin and adapted and administered through Cooperative Extension at a state land-grant university in New England. Measures and procedures were developed with the primary goal of assisting volunteer communities interested in conducting a needs assessment survey of risky behaviors among youth in grades 7 to 12 around the state. Communities enlisted the help of TAP staff to develop a community coalition to oversee the study. TAP staff then administered the survey to all students in grades 7 to 12 on one day during the academic year. Students completed the surveys anonymously in their classrooms during school hours. TAP staff and the community coalition then used the data from each community to raise awareness and develop prevention and intervention strategies around youth risk behaviors particular to each community. The data for the current secondary analyses represent a compilation of data from all of the participating schools during 2000–2001.

Participants

The original sample for the current analyses consisted of 8,475 youth in grades 7 to 12 from 10 school administrative units (SAUs) around the state surveyed during a 1-year period in 2000–2001. Only three of these SAUs chose to include questions about perpetration of physical and sexual abuse; thus, the current analyses use a subsample of 983 participants who did not have missing data on both of these questions. Students with inconsistent responses on the survey (e.g., self-reported that they used all listed drugs daily or said they never used alcohol but scored positively for binge drinking) were eliminated from the analyses because of questions about the reliability of their self-reports. The final sample size for the current analyses was a convenience sample of 980. A total of 52% were female. There was a fairly even distribution across grades (15.0% each for 7th and 8th grades, 21.6% for 9th, 17.0% each for 10th and 11th, and 14.0% for 12th). Of the sample, 69% were between the ages of 13 and 16. Information on ethnicity was not collected because many of the communities in which the survey was done were not ethnically diverse, and such information was potentially identifying for some participants, compromising their anonymity in participating. The median response for father figure’s level of education was 2, which indicated some college or technical school.

Measures

Perpetration. This was assessed using two questions. For physical abuse, students were asked, “How often have you hit, pushed, or beaten a girlfriend
or boyfriend?” This question was taken from the Youth Risk Behavior Survey (Centers for Disease Control and Prevention, 1995) and has been used in previous studies (e.g., Silverman et al., 2001). A dichotomous variable was created such that any response greater than 0 was coded as 1 for the presence of physical dating violence. In all, 93 individuals self-reported this (9.5%).

One question about use of sexual coercion was also used. Participants were asked, “Have you ever made someone do something sexual that they didn’t want to do?” Answer choices were categorical including 0 for no and various categories including unwanted kissing, touching, and intercourse. Again, a dichotomous variable was created for the current analyses with 0 representing a no response to this question and 1 representing any yes response. A total of 60 students reported this (6.1%).

Finally, a composite perpetration variable was created as a dichotomous variable, with 0 for students who answered no to both above questions and 1 for students who answered yes to either. Of participants, 118 reported any type of abuse perpetration (12.0%).

**Individual-level risk correlates.** Victimization history was assessed with two questions. Participants were asked if they “had ever been made to do something sexual that they did not want to do including touching, kissing, and/or sexual intercourse.” Answer choices included no and then a variety of yes options, including unwanted experiences by adults and peers. For the purposes of the current analyses, negative responses were coded as 0 and any yes response, regardless of relationship to perpetrator, was coded as 1. In all, 126 participants indicated that they were the victim of an unwanted sexual experience (13.0%), though 10 people had missing data on this question. A second question asked, “Have you ever been physically abused, for example, beat up, hit with an object, kicked, or some other form of physical force?” Answer choices included no and yes choices including abuse by an adult or by another teen. Again, a dichotomous variable was created with 0 for no and 1 for any yes response. Of participants, 156 reported this experience (16.1%), but again 10 participants had missing data on this question.

Alcohol and drug use were assessed through calculation of a mean score on three items adapted from Small and Rodgers (1995) and Johnston, Bachman, and O’Malley (1993). The items asked participants to indicate on a 6-point scale, including 0 (don’t use to never have), 1 (have used it but don’t anymore), 2 (once or twice a year), to 6 (daily), how frequently they use smoking tobacco, alcohol, and marijuana. Scores were created by taking the mean of responses to these three items; thus, missing data were treated
with mean substitution unless there were missing values on all three items (the case for two participants). The mean for this sample was 1.69 ($SD = 1.47$), with scores ranging from 0 to 6.

Depressed mood was assessed with one question asking, “During the past month have you felt depressed or very sad?” Response choices ranged from 0 (no) to 4 (yes, all of the time). The mean for this sample was 1.07 ($SD = 1.10$), with a range from 0 to 4. Eleven participants had missing data on this item.

Worries were assessed with five items adapted from Small and Rodgers (1995). Participants were asked how much they worried about “getting good grades,” “getting along with parents at home,” “not fitting in with other kids at school,” “how well parents get along,” and “how I look.” Answers were given on a 5-point scale from not at all to very much. Scores were calculated by taking the mean across these five items. Cronbach’s alpha was .73 for these items. The mean score for this sample was 2.10 ($SD = 0.90$).

Perceived risk of substance use was assessed with six items from Small, Silverberg, and Kerns (1993). Students were asked,

How much do you think people risk harming themselves (physically or in other ways) if they: Smoke one or more packs of cigarettes a day? Try marijuana once or twice? Smoke marijuana regularly? Use inhalants (like glue, White Out correction fluid, contents of aerosol spray cans, rush, etc.)? Take one or two drinks of an alcoholic beverage (beer, wine, liquor) nearly every day? (a “drink” is a glass of wine or beer, a shot of liquor, or a mixed drink)? Have 5 or more drinks at one time once or twice each weekend?

For each question, participants responded on a 4-point scale from 0 (no risk) to 3 (great risk). The Cronbach’s alpha for these items was .82 for this sample. Lower scores indicate lower perceived risk. The mean for this sample was 2.03 ($SD = 0.70$).

**Family-level risk correlates.** Parental divorce was assessed with one question asking students to categorize the relationship of their parents as “never married, never been divorced or separated, currently going through a divorce or separation,” or divorced or separated within various time frames. If students indicated that their parents had never been married or never been divorced or separated, they were given a score of 0. Participants who responded that their parents were divorced or separated, regardless of when it occurred, were scored as 1. Of students, 28 had missing data on this variable. A total of 353 participants (37.1%) were children of divorce.

Parental monitoring was assessed with eight items from Small and Kerns (1993). These items include questions about how frequently the participant is
expected to call parents if he or she will be home late, tell parents who he or she is going out with, how often parents know where the participant is when out at night, parents knowing what the participant is doing after school, and whether parents know how the participant spends his or her money. Students responded to these items using a 5-point scale from 0 (never) to 4 (always), and scores were created from the mean of responses to the eight items. Cronbach’s alpha was .86 for this sample ($M = 3.08, SD = 0.74$).

Maternal support and paternal support were assessed with three items each adapted from Armsden and Greenberg (1987) and Small and Rodgers (1995). Separate questions for mother and father were asked about whether the parent is “there when I need her/him,” “cares about me,” and “is fair when it comes to enforcing family rules.” Scores were calculated by taking the mean of the three items separately for mothers and fathers on a 5-point scale from never to very often. There was also an answer choice for participants who did not have an adult female or male at home; these responses were coded as missing because the question was not applicable to them. Cronbach’s alpha for maternal support was .78 ($M = 3.34, SD = 0.81$), with 33 missing, and was .84 for paternal support ($M = 3.06, SD = 1.05$), with 75 missing.

Community-level risk correlates. Neighborhood monitoring was assessed with two items from Small and Kerns (1993). These items are, “If I were to do something wrong, adults in my town would probably tell my parents/guardian,” and “If an adult in my town saw me drinking alcohol, they would probably tell my parent/guardian.” Participants responded on a 4-point scale from 0 (strongly agree) to 3 (strongly disagree). Scores were calculated as the mean across these two items and then were subtracted from 2 to reverse score the scale so that higher scores reflected higher perceived monitoring. Cronbach’s alpha was .79 for this scale ($M = 1.01, SD = 0.74$), with 10 participants missing data on this variable.

Neighborhood support was assessed with three items also from Small and Kerns (1993). The items were, “My town is a good place to live,” “In my town there are a lot of fun things for kids my age to do,” and “If I had a problem, there are neighbors whom I could count on to help me.” A 4-point scale from 0 (never) to 3 (strongly disagree) was used. Scores were calculated as the mean across the three items and reversed so that higher scores indicated views of greater perceived support and positive view of community. The Cronbach’s alpha for this sample was .50 ($M = 1.61, SD = 0.66$).

School attachment was assessed with four items from Small and Rodgers (1995) that examined perceptions of school environment. The items were, “I enjoy going to school,” “The rules in my school are enforced fairly,”
“I will probably drop out before I complete high school,” and “I believe I am getting a good, high quality education at my school.” Responses on a 4-point scale from strongly agree to strongly disagree were reverse scored so that higher scores indicated more positive views of school. Final scores were calculated as the mean across responses to the four questions. Cronbach’s alpha was .63 for the current sample ($M = 1.82$, $SD = 0.54$).

Sense of social responsibility was assessed with four items adapted from Greenberger and Bond (1984). Participants indicated on a 4-point scale their agreement with each of the following items: “I often think about doing things so that people can have things better in the future,” “It is important to me to contribute to my community and society,” “It’s not really my problem if my neighbors are in trouble and need help,” and “If I had to choose between helping to raise money for a neighborhood project or enjoying my own free time, I’d keep my own free time.” Scores were computed as the mean response across items and reversed so that higher total scores reflected greater expressed social responsibility. Cronbach’s alpha was .67 for this sample ($M = 1.77$, $SD = 0.60$), with five participants missing data.

Results

Initial analyses focused on examining the prevalence of self-reports of perpetration of physical and sexual victimization. Overall, across the 980 students in the sample, 9.5% ($n = 93$) reported ever perpetrating physical dating violence, and 6.1% ($n = 60$) reported ever perpetrating sexual coercion. Combined across these two variables, 12.0% ($n = 118$) self-reported perpetrating either form of interpersonal violence. A series of chi-square analyses examined differences in self-reported perpetration based on demographic variables. There were no significant differences for physical abuse by grade, age, or gender. Males had higher rates of perpetration of sexual coercion (10.0% vs. 2.5% for females, $\chi^2 = 23.63, p < .001$) and higher overall rates of perpetration across types (14.5% vs. 9.8% for females, $\chi^2 = 5.02, p < .05$). Older students had higher rates of perpetration for sexual abuse and overall ($\chi^2 = 10.77, p < .05$; $\chi^2 = 11.41, p < .05$; respectively). For sexual abuse, the 15- to 16-year-olds had the highest perpetration rate (8.7%), and this was also true for overall perpetration for this age group (15.3%), whereas 11- to 12-year-olds had the lowest rates (0.0% for sexual abuse, 3.2% overall).

Next, Pearson correlations were used to examine bivariate relationships between risk correlates and perpetration. Table 1 shows these results.
Perpetration, whether assessed as physical dating violence, sexual coercion, or the composite of the two, was related to having experienced sexual abuse, being the victim of physical abuse, lower perceived risk of substance use, higher self-reported use of alcohol and drugs, higher levels of depressed mood, divorce, lower perceived parental monitoring, and perceived lower maternal and paternal support. At the community level, perpetration was related to lower perceived neighborhood monitoring, lower perceived neighborhood support, lower school attachment, and lower sense of social responsibility. There was no significant relationship between self-reported worries and any of the perpetration variables.

Logistic regression was used to assess the contribution of risk correlates at the individual, family, and community levels using participants who did not have missing data on any of these variables. Given the large amount of missing data on the paternal support variable (because of 30 students not responding and 45 indicating that there was no father figure in their home), a decision was made to exclude this variable from the multivariate analyses. Table 2 presents these results for the three indicators of perpetration behavior. All risk variables were entered simultaneously into the equation. The four variables that remained significant were having been the victim of sexual abuse (sexual abuse victims were nearly 3 times more likely to self-report physical abuse perpetration, 21 times more likely to report sexual perpetration, and 4 times more likely to report either form), having higher depressed mood (increased odds of perpetrating either form of abuse by 37%), gender (being female decreased the odds of perpetrating sexual abuse by 90% and of perpetrating the composite index of abuse by 50%), and having parents who were divorced (70% increase in odds of physical abuse perpetration). Being the victim of physical abuse was significant only for risk of perpetrating physical dating violence, increasing the odds by 100%.

Further exploratory analyses were conducted to examine patterns of significant risk correlates separately for males and females, again using logistic regression with the composite perpetration variable as the outcome. A decision was made to use only this outcome as the number of female perpetrators for the individual variables (most notably sexual abuse) was too low for adequate analysis. Table 3 shows these results. Though the same predictor variables were entered for each analysis, for males, 45.6% of perpetrators were correctly classified using the entered variables, whereas this was reduced to only a 2.4% correct classification of female perpetrators. For males, the most significant risk correlates were use of alcohol and drugs and being the victim of sexual abuse, though depressed mood showed a
trend toward significance ($p = .07$). For females, the only significant variable was depressed mood, though there was a trend for increase odds of perpetration if parents were divorced.

Finally, exploratory analyses were done using the composite measures of total number of risk factors (being the victim of abuse, higher use of alcohol or drugs, low parental monitoring, being male, parental divorce, low neighborhood monitoring, and low perceived risk of substance use) and total number of protective factors (higher average grades, higher maternal

<table>
<thead>
<tr>
<th>Risk Factor</th>
<th>Physical</th>
<th>Sexual</th>
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<tbody>
<tr>
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<td></td>
<td></td>
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<tr>
<td>Gender</td>
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<td>Depressed mood$^a$</td>
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<td>.21***</td>
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<td>Substance use$^b$</td>
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<td>.21***</td>
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<tr>
<td>Perceived risk of substance use$^c$</td>
<td>−.08**</td>
<td>−.09**</td>
<td>−.11***</td>
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<tr>
<td>Victim physical abuse$^d$</td>
<td>.27***</td>
<td>.29***</td>
<td>.26***</td>
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<tr>
<td>Victim sexual abuse$^d$</td>
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<td>.09**</td>
<td>.11***</td>
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<tr>
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<tr>
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<td>−.13***</td>
<td>−.11***</td>
<td>−.13***</td>
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Note: $N = 980.$

a. $n = 969.$
b. $n = 978.$
c. $n = 973.$
d. $n = 970.$
e. $n = 952.$
f. $n = 977.$
g. $n = 947.$
h. $n = 905.$
i. $n = 975.$

*p < .05, **p < .01, ***p < .001.
and paternal support, higher neighborhood support, higher social responsibility, lack of depressed mood, and school attachment). Median splits were used to score participants dichotomously as high or low on continuous variables (M = 2.81, SD = 1.71 for total risk; M = 3.54, SD = 1.77 for total protective factors). A higher number of risk factors was related to perpetration of physical abuse (r = .24, p < .001), sexual abuse (r = .28, p < .001), and the composite indicator of perpetration (r = .28, p < .001). A higher number of protective factors was related to lower physical abuse perpetration (r = –.20, p < .001), sexual abuse perpetration (r = –.16, p < .001), and the composite (r = –.21, p < .001). Logistic regression was used to analyze the contribution of protective factors to the model predicting the composite perpetration variable after accounting for risk factors (e.g., Gilgun, Klein, & Pranis, 2000). The first logistic regression entered only total number of risk factors as the predictor. Exp(B) was 1.73, p < .001, with a chi-square

<table>
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<tr>
<th>Risk Correlate</th>
<th>Physical Exp(B)</th>
<th>Physical 95% CI</th>
<th>Sexual Exp (B)</th>
<th>Sexual 95% CI</th>
<th>Either Exp(B)</th>
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<td>0.41-1.19</td>
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<tr>
<td>Maternal support</td>
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<td>0.71-1.27</td>
<td>1.03</td>
<td>0.70-1.49</td>
<td>1.00</td>
<td>0.76-1.32</td>
</tr>
<tr>
<td>School attachment</td>
<td>0.62</td>
<td>0.36-1.07</td>
<td>0.56</td>
<td>0.26-1.18</td>
<td>0.68</td>
<td>0.41-1.11</td>
</tr>
<tr>
<td>Neighborhood monitoring</td>
<td>0.87</td>
<td>0.62-1.23</td>
<td>0.75</td>
<td>0.47-1.22</td>
<td>0.89</td>
<td>0.65-1.21</td>
</tr>
<tr>
<td>Depressed mood</td>
<td>1.30*</td>
<td>1.05-1.62</td>
<td>1.17</td>
<td>0.86-1.58</td>
<td>1.37***</td>
<td>1.12-1.68</td>
</tr>
<tr>
<td>Divorce</td>
<td>1.70*</td>
<td>1.00-2.87</td>
<td>1.25</td>
<td>0.60-2.60</td>
<td>1.58****</td>
<td>0.98-2.55</td>
</tr>
<tr>
<td>Gender</td>
<td>0.78</td>
<td>0.44-1.37</td>
<td>0.09***</td>
<td>0.03-0.23</td>
<td>0.50**</td>
<td>0.30-0.85</td>
</tr>
<tr>
<td>Sexual abuse victim</td>
<td>2.84***</td>
<td>1.55-5.19</td>
<td>21.15***</td>
<td>9.07-49.30</td>
<td>4.22***</td>
<td>2.43-7.34</td>
</tr>
<tr>
<td>Physical abuse victim</td>
<td>2.00*</td>
<td>1.01-3.64</td>
<td>2.16d</td>
<td>0.97-4.83</td>
<td>1.63</td>
<td>0.93-2.83</td>
</tr>
</tbody>
</table>

Note: N = 888. CI = confidence interval.
a. n = 847, χ² = 92.01***, Nagelkerke R² = .22.
b. n = 847, χ² = 148.91***, Nagelkerke R² = .44.
c. n = 847, χ² = 122.81***, Nagelkerke R² = .26.
*p < .05. **p < .01. ***p < .001. ****p < .10.
Next a second regression was run entering both total risk and total protective factor variables. The chi-square increased to 77.32, $p < .001$, Nagelkerke $R^2 = .17$. Both variables were significant, $\text{Exp}(B)$ for total risk = 1.56, $p < .001$; $\text{Exp}(B)$ for protective factors = 0.79, $p < .01$.

### Discussion

The current study found that for this sample that included younger adolescents, although a variety of factors across the ecological model were significantly related to dating violence perpetration at the bivariate level, what remained significant at the multivariate level was being a victim of interpersonal violence and depressed mood. This fits with earlier work highlighting potential links among victimization and perpetration (e.g., Smith et al., 2003) and depression (e.g., Capaldi & Crosby, 1997).

Also consistent with previous work, the link between depression and victimization seemed more important for girls, whereas the link between...
victimization and perpetration was more significant for boys. Interestingly, in the current study, the variables explained much more variance in perpetration for boys than for girls. Much more research is needed to more carefully understand the use of violence by girls in relationships.

The current results also highlighted the utility of examining risk and protective factors in combination (e.g., Bartko et al., 1999). When a composite of risk factors was used, for each additional risk factor present, odds of perpetration increased by 1.5 times. These findings support models of dating violence that examine both intrapersonal and family variables. Further research on the interconnections among these factors and broader contextual variables such as peer norms, neighborhood environment, and so on is needed.

Research focusing on adolescent dating violence may provide prevention programs with important insight into early risk and protective factors, including providing resources for survivors of family violence and identifying adolescent depression. Early interventions often prove more successful than later interventions because with time behaviors can become more fixed. Adolescent interventions may target two patterns specific to the developmental period. First, adolescents are forming norms for their future dating relationships. Interventions can prevent relationship norms from being established as violent dynamics (Werkerle & Wolfe, 1999). Second, adolescent relationships may contribute to their identity formation (Furman & Shaffer, 2003). Interventions may prevent adolescents from distinguishing themselves as either perpetrators or victims.

Similarly, adolescent dating violence research may provide insight into other rule-violating behaviors. For instance, research suggests that perpetrators of dating violence share similar characteristics with adolescent perpetrators of more general crimes (Brendgen et al., 2001; Capaldi & Clark, 1998). If this is the case, criminological research suggests early identification and intervention is the most successful.

There are a number of limitations to the current study. In particular, a limitation is the use of only one question to measure different forms of violence. The current study could have benefited from measures that used more detailed questions about behavior and provided more details about characteristics of abuse (e.g., Hanson, 2001). For example, the measure of sexual abuse perpetration used in the current study was so broad that that it did not necessarily encompass just sexual abuse in a dating relationship. It also treats all forms of sexual abuse, both in the victimization and perpetration questions, as equivalent. There is a large literature documenting links between different characteristics of sexual abuse and various outcomes (e.g., Banyard & Williams, 1996), a more specific and important
level of analysis that was not possible in the current study. For example, correlates may be different for different types of sexual abuse perpetration. Furthermore, there is a need to investigate whether particular characteristics of sexual abuse victimization are most key as risk factors for perpetration. In addition, further studies with more comprehensive measures of outcomes and risk factors would be useful because many used in the current study were quite brief as a result of both trying to gather info about a wide variety of risk behaviors and protective factors in a survey that could be completed by students in school and being part of research in which the primary goal was community needs assessment. More detailed measures would permit a more fine-tuned analysis of what factors related to depression or divorce or victimization are key in relation to perpetration. Furthermore, the current study used a convenience sample that is not necessarily representative of all teens, and the design was cross-sectional. There was a large amount of missing data because most schools chose not to include questions about perpetration on their surveys. This sets further limits on the generalizability of the current sample. To establish causal pathways, longitudinal research with a diverse sample of youth is needed.

Given these limitations, the findings from the current study are perhaps best seen as exploratory. However, they do add some interesting information to research on youth dating violence. In particular, the current study extends previous work that has mainly focused on college student or older high school samples. The current study also examines risk correlates in combination using an ecological framework. The results of the current study suggest that further research using such a framework would be fruitful.

References


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Charlotte Cross is an extension professor and 4-H youth development specialist at the University of New Hampshire Cooperative Extension. She has expertise in a number of areas of youth development and adolescence. She was the former director of the UNH Teen Assessment Project, providing needs assessment, parent education, and community coalition building to reduce risk factors and promote resilience among adolescents around the state. She is involved in other community youth development efforts, including a youth asset mapping project.

Kathryn L. Modecki received an MA in psychology from the University of New Hampshire. She is currently a doctoral candidate in the PhD program there as well. She has many years experience working directly with delinquent youth through Outward Bound. Her research interests include delinquency, maturity of judgment, and decision making.