Bullying Predicts Reported Dating Violence and Observed Qualities in Adolescent Dating Relationships

Wendy E. Ellis¹ and David A. Wolfe²

Abstract
The relationship between reported bullying, reported dating violence, and dating relationship quality measured through couple observations was examined. Given past research demonstrating similarity between peer and dating contexts, we expected that bullying would predict negative dating experiences. Participants with dating experience (n = 585; 238 males, $M_{age} = 15.06$) completed self-report assessments of bullying and dating violence perpetration and victimization. One month later, 44 opposite-sex dyads ($M_{age} = 15.19$) participated in behavioral observations. In 10-min sessions, couples were asked to rank and discuss areas of relationship conflict while being video-recorded. Qualities of the relationship were later coded by trained observers. Regression analysis revealed that bullying positively predicted dating violence perpetration and victimization. Self-reported bullying also predicted observations of lower relationship support and higher withdrawal. Age and gender interactions further qualified these findings. The bullying of boys, but not girls, was significantly related to dating violence perpetration. Age interactions showed that bullying was positively predictive of dating violence perpetration and victimization for older, but not younger

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adolescents. Positive affect was also negatively predicted by bullying, but only for girls. These findings add to the growing body of evidence that adolescents carry forward strategies learned in the peer context to their dating relationships.

Keywords
adolescent dating relationships, dating violence, bullying, behavioral observations

Romantic dating relationships generally begin in early adolescence and represent a normal and important transition with long-lasting implications. Positive dating relationships predict healthy social and psychological adjustment (Barber & Eccles, 2003; Furman & Shaffer, 2003). However, not all adolescent dating relationships are positive for the individuals involved. In fact, approximately 10% of adolescents have experienced some form of physical aggression by their boyfriends or girlfriends (Centers for Disease Control and Prevention, 2014). Rates of violence noticeably increase when verbal, psychological, and relational dating aggression are considered (Carney & Barner, 2012; Halpern, Oslak, Young, Martin, & Kupper, 2001). Dating violence in adolescence is associated with a wide range of adverse outcomes including low self-esteem, substance use, school dropout, and feelings of depression and anxiety (Chiodo et al., 2012; Ellis, Crooks, & Wolfe, 2009; Exner-Cortens, Eckenrode, & Rothman, 2013; Silverman, Raj, Mucci, & Hathaway, 2001). When examining the predictors of dating violence, researchers have often noted the importance of family history (Makin-Byrd, Bierman, & Conduct Problems Prevention Research Group, 2013; Wolfe, Scott, Wekerle, & Pittman, 2001) and more recently the role of adolescent peer groups (Ellis, Chung-Hall, & Dumas, 2012). Theoretical frameworks suggest that experiences in romantic relationships should be closely matched to friendships (Furman & Collins, 2008) and studies show dating violence perpetrators often exhibit similar aggression with their peers (Dishion, Spracklen, Andrews, & Patterson, 1996; Ellis et al., 2012; Foshee et al., 2011). The purpose of the present study is to build on previous research by using self-report measures of bullying and dating violence combined with observations of adolescent dating couples to examine the connection between bullying and dating experiences during adolescence.

Teens spend the vast majority of their social time interacting with peers and receive a wealth of information on acceptable behaviors in their peer groups (Rubin, Bukowski, & Parker, 2006). In particular, peer similarity and
socialization of aggressive behavior have been repeatedly documented (Ellis & Zarbatany, 2007; Rulison, Gest, & Loken, 2013). Although peer aggression has been largely associated with poor outcomes including internalizing and externalizing difficulties (Prinstein, Boergers, & Vernberg, 2001), recent conceptualizations of aggression have led to the conclusion that aggression can be adaptive for some individuals (Cillessen & Mayeux, 2004; Hawley, 2003; Rulison et al., 2013). Peer bullying, which is aggressive behavior repeated over time with hostile intent, communicates a power hierarchy with one child dominating others (Olweus, 1991). Children and teens who bully others often receive support from those around them and studies have indicated that bullying is whole-group phenomenon (Salmivalli, 2010). In fact, children who bully are integral members of large peer groups (Salmivalli, Huttunen, & Lagerspetz, 1997) and have just as many friends as other children in their school (Espelage & Holt, 2001). In short, aggressive behavior and bullying are often reinforced in the social context. The belief that aggression can be used to gain acceptance and control others may be particularly dangerous for emerging dating relationships.

In early adolescence, dating relationships develop within the peer group context and friends become responsible for supporting these budding relationships. Friend’s suggestions and opinions can directly influence a romantic relationship by communicating a partner’s value or by directly offering relationship advice (Morgan & Korobov, 2012). It is also likely that adolescents are learning how to manage relationships though indirect means such as modeling social behaviors. When aggression becomes normalized in a peer context, adolescents are likely to believe that conflict resolution in any relationship will consist of violent behavior (Leadbeater, Banister, Ellis, & Yeung, 2008). In some peer groups where the modeling of hostile or aggressive behaviors elicits positive reactions, adolescents quickly learn that using aggression against others can help them to achieve goals and be accepted by others. In a widely cited study, Capaldi, Dishion, Stoolmiller, and Yoerger (2001) observed male friendship dyads and found that men were more likely to use direct physical aggression toward their dating partners when they were part of an aggressive dyad, specifically one that mutually reinforced hostile and derogatory comments about women, compared with men who were members of non-aggressive friendship dyads. Indeed, many researchers have found similar patterns, showing that affiliation with physically violent friends is a consistent predictor of subsequent dating violence perpetration among adolescents (Arriaga & Foshee, 2004; Brendgen, Vitaro, Tremblay, & Wanner, 2002). In fact, peer group relational aggression alone is a significant predictor of both dating violence victimization and perpetration (Ellis et al., 2012). Several studies have also noted a connection between bullying and
Dating behaviors. Connolly, Pepler, Craig, and Taradash (2000) found that adolescents who reported bullying others were more likely to be involved in a dating relationship, suggesting central integration in their peer networks. Furthermore, bullying was significantly related to reports of dating aggression. Adolescents who engaged in bullying behavior also indicated that they would be more willing than their less aggressive peers to engage in unacceptable actions to maintain their romantic relationships (Connolly, Pepler, et al., 2000). In recent studies, dating violence and bullying tended to co-occur in the same individuals (Miller et al., 2013), again showing that that styles of interactions easily transfer from one relationship context to another.

In addition to the behavioral similarity of peer and dating relationships, the unhealthy problem-solving strategies found in aggressive peer relationships likely contribute to poor quality dating relationships. When adolescents consistently rely on aggressive strategies, they may have deficits enlisting healthy conflict resolution techniques. Furthermore, aggressive children often have difficulty understanding social cues and may have trouble developing intimacy due to lack of empathy (Arsenio & Lemerise, 2001; Crick & Dodge, 1996). The friendships of aggressive children are lower in reported closeness and helping (Cillessen, Jiang, West, & Laszkowski, 2005) and have higher levels of observed assertiveness (Dishion, Andrews, & Crosby, 1995) compared with less aggressive children. Even when children who bully others are central members of peer networks, their close relationships are also generally poor quality (Bollmer, Milich, Harris, & Maras, 2005). The dating relationships of aggressive adolescents are also lower quality than less aggressive peers (Capaldi & Crosby, 1997) and adolescents who bully others report that their romantic relationships are low in intimacy and affection (Connolly, Pepler, et al., 2000). Researchers have speculated that negative features of dating relationships may carry significant risk for dating violence (Rusbult, Johnson, & Morrow, 1986). For example, lower relationship satisfaction is reported by individuals in violent dating relationships (Bookwala, Frieze, & Grote, 1994). Moreover, low quality romantic relationships in early adolescence have been linked with an increased likelihood of negative relationships and relationship commitment in early adulthood (Seiffge-Krenke & Lang, 2002). Given these findings, it remains important to examine both reported dating violence as well as specific positive and negative qualities in newly emerging dating relationships.

In sum, existing research has identified aggression and bullying as potential antecedents of dating violence and poor relationship qualities. However, there is no extant research that examines the influence of bullying on observed behavior in adolescent dating relationships. Observational methods can be very useful in understanding relationship skills and causes of violence and
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risky behaviors (Wolfe, Crooks, Chiodo, Hugos, & Ellis, 2012). For example, in observations of adult relationships, hostility, anger, and poor communication distinguish between violent and non-violent couples (Cordova, Jacobson, Gottman, Rushe, & Cox, 1993). Having partners discuss areas of conflict in their relationship will simulate real-life interactions and be extremely useful in understanding the positive and negative dynamics of these relationships (Capaldi & Crosby, 1997).

In the present study, both self-report questionnaire and behavioral observation methods were used to examine the relationships between bullying and dating experiences. Bullying and dating violence perpetration and victimization were assessed with self-report inventories. Behavioral observations of dating couples were used to assess qualities of the dating relationship. We expected that youth who bully will be at greater risk of violence in their dating relationships and show evidence of unhealthy romantic interactions. Specially, we examined both dating violence perpetration and victimization, given the substantial overlap in these behaviors (O’Leary & Slep, 2003) and observations of positive affect, relationship support, conflict, and withdrawal. Both self-reports and observations of dating couples have found that prevalence rates of physical dating violence are often higher for women than men (Capaldi, Kim, & Shortt, 2007; Foshee, Bauman, Linder, Rice, & Wilcher, 2007). However, it is often argued that women use violence primarily in self-defense (Foshee et al., 2007). If women’s motivations for violence are largely retaliatory in the dating context, it is possible that the relationship between bullying and dating violence will be stronger for boys than girls. Researchers have also suggested that the prevalence and severity of dating violence increases over time from early adolescence to mid-adolescence (Arriaga & Foshee, 2004). The implications of increasing rates of dating violence for adolescents will be examined in the present study by including age as moderator in our analyses.

Method

Participants

Participants in this study were recruited from all classes in Grades 9, 10, and 11 in two public high schools in a mid-sized Canadian city. Only those students who provided documentation of parental consent and youth assent participated. The initial sample was comprised of 1,070 students (14–17 years of age, $M_{age} = 15.45$; 522 females and 548 males). There were 340 Grade 9 students (32%), 379 Grade 10 students (35%), and 351 Grade 11 students (33%). Most participants identified as White (80%), and others self-identified as
Asian Canadian (9%), Arab Canadian (2%), or Other (8%). Census data on socioeconomic characteristics of the school neighborhoods revealed that the sample was middle to lower middle class.

For the purposes of the present study, data from participants who indicated previously or currently being involved in dating relationships were used for the analyses. A total of 585 participants (238 males, 346 females; \( M_{\text{age}} = 15.06, SD = 0.80 \)) out of the original 1,070 (55%) were used for analysis. Of all the participants with dating experience, 175 were in Grade 9 (61 males, 114 females), 193 were in Grade 10 (76 males, 117 females), and 217 were in Grade 11 (102 males, 115 females).

Approximately 1 month later, 44 opposite-sex dyads participated in the behavioral observation portion of the study, consisting of 44 males and 44 females. The mean age of participants in the behavioral observation was 15.19 years (\( SD = 0.82 \)). A total of 25 Grade 9 students, 29 Grade 10 students, and 34 Grade 11 students participated in this study. Details on the recruitment of participants for the observations are listed in the procedure.

**Measures**

**Bullying.** Bullying was measured using four questions involving the use of physical, verbal, social, and cyber bullying perpetration (Schwartz, Gorman, Nakamoto, & Toblin, 2005). Participants were asked to respond to items using a 4-point scale to indicate frequency over the past 3 months (e.g., “Have you taken part in physically bullying other students at school by pushing, hitting, or kicking”) ranging from “never,” “once or twice,” “every week,” to “many times a week.” This scale has high reliability with a Cronbach’s alpha of .90 for the four questionnaire items.

**Dating violence.** The *Conflict in Adolescent Dating Relationships Inventory* (CADRI; Wolfe, Scott, Wekerle, & Pittman, 2001) was used to measure violence within dating relationships. Only participants who were previously or currently engaged in a dating relationship completed this survey (55%). The specific instructions were as follows:

The following questions ask you about things that may have happened to you with your boyfriend or girlfriend while you were having an argument. Mark the answer that is your best estimate of how often these things have happened with your current (or ex-boyfriend/ex-girlfriend) in the past year.

Participants were asked to indicate the frequency of occurrence of each statement during any conflicts or arguments with their current or past dating
partner over the past year (e.g., “I insulted him or her with put-downs”). Response options ranged from “never happened,” “1 to 2 times,” “3 to 5 times,” to “6 or more times.” The CADRI contained items for physical, relational, and sexual aggression and threatening behavior. These items were averaged to create an overall score. Victimization ($\alpha = .91$) and perpetration ($\alpha = .89$) were measured separately.

According to our data, the prevalence rates of adolescents with some experience of dating perpetration/victimization (a response of “1-2 times” on at least one item) are listed below. This was done using the five subscales of the CADRI rather than the total score that was used for hypothesis testing. Prevalence rates are as follows for perpetration and victimization, respectively, for each of the five subscales: Sexual Aggression, 27%, 38%; Physical Aggression, 21%, 21%; Emotional Aggression, 83%, 84%; Threatening Behavior, 16%, 23%; Relational Aggression 63%, 58%. The range of prevalence rates we found for different forms of violence is largely consistent with previous research (Hickman & Aronoff, 2004).

Behavioral coding. A 10-min discussion task was completed by couples in the present study. Couples were given a list of 10 common issues in dating relationships (e.g., “His or her parents don’t approve of the relationship”). This list was created based on a series of focus groups with local high school students not participating in the present study. We asked couples to rank and discuss the list with the following instructions:

We recently talked to others couples your age and we found out there are many things that couples disagree on. Here are 10 common problems found in relationships. Rank these in order of what you think most couples argue about.

After working together to rank the problems, couples were asked to independently first, then together, decide the order of the issues for their own relationship. Once they agreed on the order they were asked to use the top ranked item and answer three questions: (a) Think of an example of when that happened; (b) How did you resolve the disagreement? (c) Was this the best way to deal with the issue? Or could you have done something else?

An adapted and abbreviated version of the System for Coding Interactions in Dyads (SCID; Malik & Lindahl, 2004) was used to code the interactions. One undergraduate student researcher coded the videos, with a second undergraduate researcher coding approximately 20% of the videos for inter-rater reliability. The interclass correlations for all variables ranges were high, ranging from .73 to .96 ($ps < .01$). Intraclass correlations were used instead of kappa to assess reliability to demonstrate the closeness of
raters scores on a continuous scale (Banny, Heilborn, Ames, & Prinstein, 2010; Lasnsford et al., 2006).

The SCID was created to code interactions between married couples; however, the scheme was modified to capture similar behaviors in adolescent dating relationships. The SCID measured behavioral aspects of each partner including positive affect, relationship support, withdrawal, and conflict. All scores were made on a 5-point scale, ranging from very low to very high.

**Positive affect.** Positive affect assessed the qualities of the partner’s tone of voice, facial expression, and body language. Positive affect was measured through behaviors such as affection, laughter, smiling, or making jokes. A positive tone of voice can be happy, cheerful, or satisfied. Positive facial expressions include smiles and looking relaxed and happy. Positive body language includes being relaxed, holding the other’s hand, and touching on the leg or shoulder, legs or arms, and other touches, unless they do not appear to be playful.

**Relationship support.** This code assessed the degree to which the partner is supportive and attuned to the other partner. Individuals high in support listen carefully to the other, are sensitive to the emotions and concerns of the other, and validate and attempt to understand the other partner’s perspective. Listening attentively to the other partner is characterized by nodding, clearly looking at them while they speak, not becoming distracted while they speak, not interrupting, asking questions to enhance understanding of the other’s perspective, and waiting to speak. Being attuned to a partner is being able to “read” the other’s verbal and/or non-verbal signals of emotion. A partner who is not attuned may seem oblivious to or unaware of the other’s needs. For example, a partner may continue to criticize angrily, even when the other partner appears to be feeling overwhelmed or very distressed.

**Conflict.** Conflict assessed the level of tension, frustration, irritation, and anger displayed by each partner. This code captures the negative feeling and tone of the interaction. This code measured conflictual, sarcastic, or defensive statements. Critical or blaming comments that are angry were also coded as conflict.

**Withdrawal.** This code assessed the degree to which each member of the couple removes himself or herself from the interaction or avoids the interaction or discussion, through three types of actions: body language, tone of voice, and attitude. A partner may evade the issue or may seem to pull himself or herself out of the discussion. A partner may seem to retreat into a shell,
become detached, back off, or shut down, physically or emotionally (through body language, tone of voice, and/or attitude).

**Procedure**

Parental consent and youth assent forms were sent home with students in Grades 9, 10, and 11. Only students who returned both completed forms were allowed to participate in the study. Consent was calculated by grade and ranged from 60% to 77% (M consent rate = 69%). There were no significant differences in consent rates between grades or between boys and girls. Confidentiality was maintained by using an identification number instead of each participant’s name. Self-report questionnaires were administered during class time in the month of April. Undergraduate and graduate student researchers supervised participants’ completion of the questionnaire package within their classrooms. Each session lasted approximately 1 hr. Students of classes that brought back all of their parental consent and youth assent forms, regardless of the decisions made, received a class pizza party (approximately 40% of classes). Schools were given an honorarium of Can$500 for their participation in the study.

All students were debriefed upon completion of the survey and provided with contact information should any concern arise.

For the second portion of the study held in May and June, eligible (in a dating relationship for a minimum of 3 months) and willing couples participated in behavioral observational sessions. At the end of the self-report study, students who participated in the self-report questionnaire portion of the study were asked if they were currently involved in a steady romantic relationship and would be willing to participate in an observational study with their partner. Only couples who had both participated in the previous session and who had been dating for a minimum of 3 months were eligible to participate in the observations. A follow-up information letter was given to students and their parents. This letter was to remind them of the study and provide more details about the observational study. Consent to participate in the observations was obtained from the original consent form sent to students in fall. The observation sessions took place during the lunch hour or after school in an empty classroom. Each session took approximately 20 min to complete and participants were compensated Can$20 per session for their time. There were three tasks for the couples to complete: a warm-up task, a discussion task, and a puzzle task. The warm-up task lasted 5 min and involved asking the couple to respond to five hypothetical questions (e.g., “If you could take a vacation together anywhere in the world for any length of time, where would you go?”). The discussion task lasted 10 min and was analyzed for the present
study and is outlined in the measures. After the discussion task, couples completed another 5-min task where there were asked to work together to complete a difficult puzzle. Two researchers, one undergraduate student and one graduate student, supervised the observation sessions and remained in the classroom. One researcher read instructions to the participants, while the other monitored the video camera. When the dyads were engaging in the task, the researchers moved out of participants’ field of vision, positioned themselves away from participants, and appeared to be occupied (e.g., reading a book). Ethical guidelines at each school required researchers to remain in the classroom at all times. No other students or teachers were present. Once each session was completed, both participants were debriefed and thanked for their participation.

All videotapes were coded for positive affect, relationship support, conflict, and withdrawal by two undergraduate researchers trained on the coding system until reliability was achieved. Coding took place over a 3-month period.

Results

Zero-order correlations were examined among all the dependent variables and are shown in Table 1. As expected, dating violence perpetration and victimization were highly correlated (.87). The observational outcomes were moderately correlated (range = −.40-.12), suggesting we are likely measuring unique aspects of the dating relationships. Bullying was positively related to both dating violence victimization and perpetration as we expect to find in the regression analysis. Bullying was related to less supportive dating relationships in the observations. Finally, there were no significant correlations between the observed relationship qualities and dating violence.

One hierarchical regression analysis was conducted for each of the six outcome variables examined. Two self-report outcome variables were examined: dating violence victimization and dating violence perpetration. Four observational relationship variables were examined: positive affect, relationship support, withdrawal, and conflict. For the regression analysis, the predictor variables were entered in three blocks: (a) sex and age, (b) reported bullying, (c) interactions between Age × Bullying and Sex × Bullying. Non-significant interaction terms were removed from the final regressions analyses. All variables were centered and significant interactions were analyzed according to the guidelines outlined by Aiken and West (1991). Simple slopes were tested following the procedures outlined by Preacher, Currran, and Bauer (2006). To decipher the overall pattern of each interaction, separate regression lines were computed and plotted for individuals one standard
deviation above (+1 SD) and one standard deviation below (−1 SD) the mean of the predictor. Simple slope analyses tested whether the slopes representing each relationship were significantly different from 0 at high and low levels. The use of ±SD for age analysis split the sample into younger (ages 14-15 years) and older adolescents (16-17 years).

**Dating Violence**

The first regression analysis was computed to determine whether dating violence perpetration could be predicted from reported bullying and if these effects were moderated by interactions between sex and bullying and age and bullying. This model was significant, \( F(5, 552) = 5.20, p < .001 \), and accounted for 5% of variance in dating violence perpetration. The final model is shown in Table 2. Dating violence perpetration was predicted positively by reported bullying, but not sex and age. However, the interactions between sex and bullying and age and bullying were also significant. The interaction with sex indicated that boys’ bullying was significantly related to dating violence perpetration, \( \beta = .09 (.02), t = 5.01, p < .001 \), such that high levels of bullying were associated with the highest levels of dating violence perpetration. For girls, dating violence perpetration did not significantly differ as a function of bullying, \( \beta = .02 (.02), t = 1.34, ns \). The interaction with age showed that bullying was positively predictive of dating violence perpetration for older adolescents, \( \beta = .09 (.02), t = 4.27, p < .001 \), but not younger adolescents, \( \beta = .018 (.02), t = 0.8473, ns \).

The second regression analysis was computed to determine whether dating violence victimization could be predicted from reported bullying and whether these effects were moderated by interactions between sex and

### Table 1. Means, Standard Deviations, and Correlations Among Dating Violence, Observed Relationship Qualities, and Reported Bullying.

<table>
<thead>
<tr>
<th></th>
<th>M (SD)</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Perpetration</td>
<td>1.24 (0.38)</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>2 Victimization</td>
<td>1.26 (0.38)</td>
<td>.87**</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>3 Positive affect</td>
<td>2.84 (0.98)</td>
<td>.04</td>
<td>—</td>
<td>.07</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>4 Support</td>
<td>3.03 (1.06)</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>.28**</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>5 Withdrawal</td>
<td>2.00 (0.89)</td>
<td>.10</td>
<td>—</td>
<td>.03</td>
<td>—</td>
<td>.33**</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>6 Conflict</td>
<td>1.09 (0.34)</td>
<td>—</td>
<td>.02</td>
<td>.04</td>
<td>—</td>
<td>—</td>
<td>.40**</td>
<td>—</td>
</tr>
<tr>
<td>7 Bullying</td>
<td>1.43 (0.81)</td>
<td>.15**</td>
<td>.11**</td>
<td>.21</td>
<td>—</td>
<td>.29*</td>
<td>.19</td>
<td>—</td>
</tr>
</tbody>
</table>

*p < .05. **p < .001.
bullying and age and bullying. This model was significant, $F(5, 552) = 2.46$, $p < .05$, and accounted for 2.4% of variance in dating violence victimization. Dating violence perpetration was predicted positively by reported bullying, but not sex and age (see Table 2). The interaction between age and bullying was also significant and showed that bullying was related to dating violence victimization for older, $\beta = .07 (.03)$, $t = 3.03$, $p < 0.01$, but not younger students, $\beta = .01 (.03)$, $t = 0.48$, $\text{ns}$.

### Table 2. Hierarchical Regression Analysis Predicting Dating Violence Perpetration and Victimization and Observed Relationship Qualities From Reported Bullying.

<table>
<thead>
<tr>
<th>Step and variable</th>
<th>$\beta$</th>
<th>$SE$</th>
<th>$t$</th>
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</thead>
<tbody>
<tr>
<td><strong>Regression 1: Predicting dating violence perpetration</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Age</td>
<td>-.22</td>
<td>.004</td>
<td>-0.495</td>
</tr>
<tr>
<td>Sex</td>
<td>.07</td>
<td>.04</td>
<td>1.48</td>
</tr>
<tr>
<td>2. Bullying</td>
<td>.15</td>
<td>.05</td>
<td>3.35**</td>
</tr>
<tr>
<td>3. Bullying $\times$ Age</td>
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<td>.04</td>
<td>2.82**</td>
</tr>
<tr>
<td>4. Bullying $\times$ Sex</td>
<td>-.09</td>
<td>.03</td>
<td>-1.98*</td>
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<tr>
<td><strong>Regression 2: Predicting dating violence victimization</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>1. Age</td>
<td>-.02</td>
<td>.005</td>
<td>-0.52</td>
</tr>
<tr>
<td>Sex</td>
<td>-.05</td>
<td>.03</td>
<td>-1.04</td>
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<td>2. Bullying</td>
<td>.11</td>
<td>.02</td>
<td>2.36*</td>
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<tr>
<td>3. Bullying $\times$ Age</td>
<td>.11</td>
<td>.02</td>
<td>1.99*</td>
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<td><strong>Regression 3: Predicting positive affect</strong></td>
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</tr>
<tr>
<td>1. Age</td>
<td>.29</td>
<td>.15</td>
<td>2.26*</td>
</tr>
<tr>
<td>Sex</td>
<td>.23</td>
<td>.26</td>
<td>1.75</td>
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<td>2. Bullying</td>
<td>-.16</td>
<td>.20</td>
<td>-1.26</td>
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<tr>
<td>3. Bullying $\times$ Sex</td>
<td>-.40</td>
<td>.49</td>
<td>-2.59*</td>
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<td><strong>Regression 4: Predicting support</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>1. Age</td>
<td>.22</td>
<td>.18</td>
<td>1.60</td>
</tr>
<tr>
<td>Sex</td>
<td>-.05</td>
<td>.30</td>
<td>-0.37</td>
</tr>
<tr>
<td>2. Bullying</td>
<td>-.34</td>
<td>.23</td>
<td>-2.51*</td>
</tr>
<tr>
<td><strong>Regression 5: Predicting withdrawal</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>1. Age</td>
<td>.001</td>
<td>.15</td>
<td>0.008</td>
</tr>
<tr>
<td>Sex</td>
<td>.17</td>
<td>.25</td>
<td>1.29</td>
</tr>
<tr>
<td>2. Bullying</td>
<td>.33</td>
<td>.19</td>
<td>2.43*</td>
</tr>
<tr>
<td><strong>Regression 6: Predicting conflict</strong></td>
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<td></td>
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</tr>
<tr>
<td>1. Age</td>
<td>.08</td>
<td>.15</td>
<td>0.60</td>
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<tr>
<td>Sex</td>
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<td>.25</td>
<td>1.27</td>
</tr>
<tr>
<td>2. Bullying</td>
<td>-.07</td>
<td>.20</td>
<td>-0.54</td>
</tr>
</tbody>
</table>

*p < .05. **p < .001.
Observations of Dating Couples

The next series of regression analyses were computed to examine the relationship between reported bullying and observations of dating relationship qualities.

A third regression analysis examined bullying as a predictor of observed positive affect in the dating relationship. This model was significant, $F(5, 70) = 3.40, p < .01$, and accounted for 26% of variance in positive affect. The final model is shown in Table 2. Positive affect was predicted positively by age but not by reported bullying. However, given our initial predictions about moderating effects, we continued to examine possible interactions in this regression model and found a significant interaction between bullying and sex. This interaction indicated that girls’ observed positive affect differed by bullying such that girls with high levels of bullying had the lowest levels of positive affect, $\beta = 3.01 (.18), t = 16.66, p < .001$. Boys’ level of positive affect did not differ significantly by levels of bullying, $\beta = .27 (.18), t = 0.90, ns$.

A fourth regression analysis examined bullying as a predictor of observed relationship support. This model was significant, $F(3, 70) = 3.12, p < .05$, and accounted for 16% of variance in support. The final model is shown in Table 2. Observed support was predicted negatively by reported bullying. No significant interactions were found between bullying and sex or bullying and age.

A fifth regression analysis examined bullying as a predictor of observed withdrawal in the dating relationship. This model was approaching significance, $F(3, 70) = 2.57, p = .06$, and accounted for 14% of variance in withdrawal. The final model is shown in Table 2. Withdrawal was predicted positively by reported bullying. No significant interactions were found between bullying and sex or age.

A sixth and final regression analysis examined bullying as a predictor of observed conflict in the dating relationship. This model was not significant, $F(3, 54) = 0.70, ns$, and there were no significant predictors.

Discussion

The purpose of the present investigation was to examine the relationship between bullying and reported and observed behavior in adolescent dating relationships. Our results add to the growing body of evidence showing the interconnections between peer and dating contexts. Both dating violence perpetration and victimization were positively predicted by bullying, particularly for older adolescents. As well, bullying was related to observations of
lower positive affect, less relationship support, and higher withdrawal in adolescent dating couples. Specifically, our results highlight the potential dangers in the dating relationships of adolescents who bully.

We found strong support for our first hypothesis that adolescent bullying would predict dating violence. Our findings are clearly in line with previous research on the topic (Arriaga & Foshee, 2004; Connolly, Pepler, et al., 2000; Ellis et al., 2012), suggesting that aggression and bullying with peers predicts similar behaviors within dating contexts. For both dating violence perpetration and victimization, peer bullying was a significant predictor. It is likely that adolescents who report bullying believe that aggression in relationships is an effective and normative behavior in social interactions. Dating relationships are entirely new experiences, and teens tend to have a poor understanding of acceptable behaviors in these contexts (Foshee et al., 2007). In their emerging dating relationships, issues of power and control are quite common and youth are likely to rely on behaviors learned in their previous peer interactions (Furman & Collins, 2008). Adolescents who bully others are often the first of their peers to start dating, and this may be a reflection of the social position that some aggressive teens experience (Connolly, Pepler, et al., 2000). There is a cluster of aggressive youth who are able to carefully manipulate others without losing their social standing (Hawley, 2003). In dating relationships, popular or central adolescents may be able to control their partners in a highly sophisticated, yet violent, manner. It is also possible that adolescents who bully others are marginalized from their peers and initiate dating relationships as an escape from their negative peer interactions (Bukowski, Sippola, & Hoza, 1999) but continue to use violent behaviors due to a lack of alternatives. Despite possible status differences, adolescents who bully others are entering their dating relationships with an understanding that violence can be effectively used to manage social relationships.

Importantly, we also noted age-related differences in the dating violence outcomes in our study. The age range of our sample was 14 to 17 years and our analysis of moderating effects compared this sample as two groups: older and younger. Compared with their younger counterparts, older adolescents experienced a significant link between bullying and both dating violence perpetration and victimization. The time period studied in the present sample is clearly a time of emerging relationships. In the beginning stages of dating, romantic relationships can be an extension of friendships and generally take place in a group setting (Connolly, Furman, & Konarski, 2000). Older adolescents could be experiencing more serious, intense, or stable relationships compared with early adolescents. The issues emerging from serious dating relationships may challenge adolescents’ repertoire of social problem-solving skills, exacerbating the link between bullying behavior and dating violence.
We also found that gender was an important qualifier of dating violence. Specifically, boys’ bullying was significantly related to dating violence perpetration but girls’ bullying was not. Past research suggests that rates of dating violence do not vary between boys and girls but that gender differences exist in motivations and consequences (Wolfe, Scott, & Crooks, 2005). If girls are using aggression in response to their dating partner, girl’s aggression may be context specific. In the present study, gender alone was not a significant predictor, but when boys engaged in bullying, they were more likely to exhibit violent behaviors in the dating relationship. There may be key differences in the ways boys and girls bully others and in the manner through which violence is expressed in the dating relationship. Although we did not distinguish type of bullying here, it is likely that boys engaged in more physically aggressive bullying while girls showed more relational or verbal bullying (Prinstein et al., 2001). Although these gender-based differences are not always clear, there may be implications for dating violence and possibly stronger pathways between physical aggression and acts of dating violence compared with other forms of aggression. Physically aggressive children experience more serious social consequences and likely have a greater defect in relationships skills than those behaving in socially aggressive ways (Rose & Swenson, 2009). Moreover, girls may be fine-tuned with their use of aggression, understanding what type of aggression to use in different relationship contexts.

We also found support for our second hypothesis that bullying would predict observed behavior in dating relationships. Using 10-min long observations of couples discussing sources of conflict in their relationships, we were able to identify differences based on adolescents’ bullying. As expected, bullying predicted relationships with lower positive features and higher withdrawal. Given that previous research has shown that the peer and dating relationships of aggressive children are generally lower in positive features (Capaldi & Crosby, 1997), we expected to see similar evidence in our observations of dating couples. Indeed, adolescents who reported higher levels of bullying had lower positive affect and relationship support and higher withdrawal compared with those with little or no bullying. The experience of openly discussing areas of relationship conflict was likely unique and somewhat uncomfortable for the young couples in our study. Given the potentially stressful task, there were many opportunities to show support or affection and ease the tone of the discussion. We noted that girls who self-reported bullying used fewer positive strategies such as touching, laughing, joking, and being cheerful in their discussions compared with girls with less bullying. These differences in positive affect were qualified by the gender of our participants and generally applied to girls and not boys. This difference is possibly a
reflection of the known gender differences in emotional expression (Brody & Hall, 1993). Boys, who already have a low baseline for positive expression, did not differ as a result of bullying experience.

Our observations also showed that bullying predicted lower relationship support. Adolescents with more frequent bullying demonstrated a lack of socially sensitive and attuned responses to their partners compared with those who reported infrequent bullying. Finally, our observations revealed that adolescents who bully were removed from the conversation and showed an unwillingness to engage in a meaningful discussion. Taken together, the pattern of behavior elicited from adolescents who bully demonstrates a major deficit in adaptive interpersonal skills. Given that experiences in healthy dating relationships help adolescents to develop a sense of identity, foster interpersonal skills, and promote feelings of self-worth (Barber & Eccles, 2003), it appears that adolescents who bully are at a serious disadvantage in their romantic relationships. Interestingly, observations of conflict were not directly related to bullying experience. Despite findings by Capaldi and Crosby (1997), overt aggression may be rare in observations of normative adolescent population, given the contrived and public nature of the discussion. Nevertheless, clear differences were found in the overall quality of dating relationships based on levels of bullying. The observed differences in the present study may provide a window into the couple behaviors on a day-to-day basis. As suggested in previous research, adolescents who bully others may be lacking important skills to build close meaningful romantic relationships. Although we found little overlap between dating violence and observed relationships qualities, the negative features observed in the present study may be an early sign of persistent relationship difficulties or possibly escalating violent behavior (Rusbult et al., 1986).

The conclusions of our study should be considered in light of several methodological limitations. First, we did not use longitudinal data to determine the temporal ordering of behaviors examined. Although it is likely that bullying is a precursor of dating violence, given the age of our sample and the stability of childhood aggression and bullying (Scholte, Engels, Overbeek, de Kemp, & Haselager, 2007), it is also possible that dating violence extends to peer relationships. Partners who are either victims or perpetrators of violence in their dating relationships may begin to use bullying outside of the relationship as well, possibly in response to jealously or other threats to the relationships. A valuable extension of this work would be to examine historical rates of bullying and emerging dating relationships. Similarly, there are likely key variables that underlie the bullying–dating link that could be examined in further research. For instance, child temperament and abusive family relationships may prime some children to be

Second, the present study examined only individual behaviors in a dyadic setting; however, we did not consider the reciprocal nature of the relationship. The couple’s similarity on bullying or observed quality remains unknown. It is possible that adolescents who bully others develop relationships together based on shared experiences or attitudes. There may also be considerable socialization of behavior in romantic relationships, and partners may form a team bullying others. Future research could examine the extent to which dyadic similarity of dating attitudes or behaviors predict further increases in violent behavior.

Finally, as motioned previously, we did not distinguish different aspects of dating violence (e.g., verbal, physical, sexual, threatening, and relational) or bullying separately. Given the sometimes overlapping categories of dating violence (O’Leary & Slep, 2003) and the expectation that all forms of bullying directed at peers could lead to poor relationships and dating violence expressed in any number of ways (Ellis et al., 2012), the analyses were not further divided into the five categories of dating violence measured and four categories of bullying. It would be interesting for future work to examine the specific associations between these categories given the present findings.

Despite study limitations, several implications emerge from our results. First, healthy peer and dating relationships likely involve interrelated social and emotional skills. Dating relationships emerge at a time when peer group belonging and the need for acceptance are highest (Furman & Collins, 2008). It is critical to simultaneously address the role of aggression in each relationship context, particularly when adolescents are often positively reinforced for their aggression. Second, the present study demonstrates that observations can add to our understanding of healthy relationship skills. Self-report measures have been highly criticized for inconsistent reports of dating violence (Jourile, McDonald, Garrido, Rosenfield, & Brown, 2005), and our findings show the scope of relationships effects, which may be neglected by examining numbers alone. Measures of program efficacy may benefit from the inclusion of observed behaviors.

To conclude, our findings support and extend previous research by illustrating the close connection between peer and dating contexts. Adolescents who engage in bullying experienced higher levels of dating violence, lower relationship support, less positive affect, and higher patterns of withdrawal. The combination of self-report and observational methods employed in the present study adds strength to our conclusion that peer directed bullying is indeed a risk factor for healthy dating relationships.
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