Published in final edited form as:

J Aggress Maltreat Trauma. 2016 ; 25(8): 793–811. doi:10.1080/10926771.2016.1194938.

A Gendered Approach to Understanding the Roles of Social Bonding, Personal Control, and Strain on College Dating Violence in Emerging Adulthood

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Abstract

Borrowing insights from concepts that have been shown to predict deviant or criminal outcomes (i.e., social bonding, personal control, and strain), this study examined dating violence from the perpetrators' and gender-relevance perspective among young college students (18–25 years old). This study raised 2 research questions: Were social bonding, personal control, and strain associated with college dating violence? How did these associations differ by gender? In sum, 2 types of social bonding (commitment to goal attainment and spending time with delinquent peers) were linked to psychological aggression in dating. Whereas self-control was negatively related to dating violence perpetration, antisocial tendencies were associated with physical aggression. Further, all the strain measures (i.e., daily hassles, relationship distress, and couple conflict) had a positive association with dating violence. When gender was considered, self-control had a protective effect for women and antisocial tendencies served as a risk factor for increased psychological violence among men.

Keywords

College dating; early adulthood; physical aggression; psychological aggression

Dating is a common developmental life experience in early adulthood (e.g., Lanz & Tagliabue, 2007; Zimmer-Gembeck & Petherick, 2006), but 69% of females and 53% of males had their first intimate partner violence (IPV) encounter before age 25 (Black et al., 2011), with the rates of IPV generally the highest among women in the age bracket of 18 to 24 years old (Catalano, 2012). Further, among a specific subset of emerging adults, existing evidence revealed that between 10% and 65% of college students have engaged in some form of IPV, either physical or psychological, with a dating partner (e.g., Barrick, Krebs, & Lindquist, 2013; Kaukinen, Gover, & Hartman, 2012; Luthra & Gidycz, 2006; Miller, 2011). Despite its varying prevalence estimates that likely resulted from different study conceptualizations of IPV, adverse outcomes from dating violence are devastating.

Specifically, along with the detrimental health repercussions that are well-documented in the medical literature, IPV incidence creates a considerable financial burden on our health care system (Bonomi, Anderson, Rivara, & Thompson, 2009; Rivara et al., 2007).

Notwithstanding the growing research that points to the gender symmetry in dating violence among college students in recent decades (e.g., Straus, 2008; Straus & Ramirez, 2007), efforts to better comprehend the complexity of IPV perpetration and gender-specific risk or protective factors among the U.S. college student population remain limited. Borrowing insights from concepts that have shown to predict deviant or criminal outcomes (i.e., social bonding, personal control, and strain) rather than testing the theories, this study examined college dating violence from the perpetrators' and gender-relevance perspective, in an attempt to uncover a dimension of IPV complexities rarely addressed yet pertinent and critical to young adults who have ventured into the college environment. This study raised the following research questions: Were social bonding, personal control, and strain associated with college dating violence? How did these associations differ by gender?

Social bonding

Originally conceived by Hirschi (1969), the social bonding theory perceived engagement in deviant acts as a result of an individual's loose ties with society. The theory holds that internalization of customary rules governing prosocial behaviors increases the probability of social conformity due to fear of jeopardizing social bonds deemed valuable (Hirschi, 1969). Applied to college dating violence, IPV should be viewed as a deviation from social norms because healthy couple relationships are generally built on mutual respect, compromise, and admiration characterized by nondestructive conflict resolution tactics. Further, at least three types of social bonding are presumed to be prevalent among college students (i.e., life goals, peers, and religious involvement). First, goal attainment encompasses the effort and commitment to set missions with the hope of achieving them. Upholding career or educationally related aspirations have been shown to exert a strong impact on positive behavioral and psychological outcomes in emerging adulthood (e.g., Heckhausen, Chang, Greenberger, & Chen, 2013; Stringer, Kerpelman, & Skorikov, 2012). Second, as individuals navigate through adolescence and reach early adulthood, peers play a central role in shaping their dating behaviors, sometimes exceeding the influence of their parents (Dishion, Ha, & Véronneau, 2012; Ramirez, Paik, Sanchagrin, & Heimer, 2012). Socialization in delinquent subculture, however, reinforces acquisition of deviant behaviors through observational learning and norm reinforcement (e.g., Vogel & Keith, 2015; Yarbrough, Jones, Sullivan, Sellers, & Cochran, 2012). Finally, investment in religious or spiritual activities has been posited to encourage social conformity and discourage violence in part because most religious teachings in the United States oppose the use of intimate violence in conflict resolution. In fact, some found that religion frequently serves as a protective factor in maintaining conformity to prosocial behaviors (e.g., Petts, 2009; Salas-Wright, Vaughn, Hodge, & Perron, 2012). Based on the literature review, this study hypothesized that commitment to attaining life goals and religious involvement would be negatively associated with dating violence perpetration, whereas college students' affiliation with delinquent peers would exhibit the opposite association. Further, because males might be more competitively inclined and females are socialized to be more interpersonally oriented (Andersen, Ertac,

Gneezy, List, & Maximiano, 2013; Jamshidi, Hossien, Sajadi, Safari, & Zare, 2011), this study inferred that goal attainment would have a protective influence among male participants whereas peer affiliation and religious involvement were more relevant among female participants compared to their male counterparts.

Personal control

The concept of self-control can be traced back to the work of Gottfredson and Hirschi (1990), which theorized the lack of self-control as the primary motivator of law-breaking behaviors. Higher self-control is also associated with decreased participation in risky sexual behaviors and nonuse of contraception, which have been empirically linked to dating violence (e.g., Pearson, 2006; Wills, Gibbons, Gerrard, Murray, & Brody, 2003). In general, empirical findings show distinct gender patterns of arrest, with men committing more crimes or attempting more deviant acts than women (e.g., Lauritsen, Heimer, & Lynch, 2009; Petit, Kornreich, Verbanck, & Campanella, 2013). Some critics charged that self-control, which is the product of “failed” early socialization, plays a critical role in predicting future behavioral outcomes (e.g., Berkout, Young, & Gross, 2011; Meldrum, Young, & Lehmann, 2015). Others have also attributed this to the differences in how boys and girls are socialized. For example, females are supervised more closely than their male counterparts; thus, they should have greater self-control than males (Tittle, Ward, & Grasmick, 2003). Along with low self-control, antisocial tendency, a trait more commonly exhibited among males than females (Moffitt, Caspi, Rutter, & Silva, 2001), is another factor that has been identified to interfere with pragmatic decision-making processes (Mazas, Finn, & Steinmetz, 2006). Many individuals with antisocial personality traits are known to possess characteristics including low self-control, sensation-seeking behaviors, lack of responsibility, poor self-regulation, high impulsivity, difficulties in delaying gratification, and diminished ability to discern the consequences of their behaviors (e.g., Black, 2013; Blair, 2001; Fals-Stewart, Leonard, & Birchler, 2005; Hines & Straus, 2007). On the one hand, the interpersonal exploitiveness and lack of empathy that characterize this personality trait might encourage the use of aggression in conflict resolution (see Alcorn et al., 2013; Lobbestael, Cima, & Arntz, 2013); such temperament also correlates with the likelihood of engaging in behaviors associated with partner abuse (Holtzworth-Munroe & Meehan, 2004). Thus, this study hypothesized that college students with self-control and lower antisocial tendencies would be less likely to engage in dating violence. When gender is considered, this study hypothesized that the associations of these elements would be more related to male participants than females.

Strain

From the strain perspective, psychological strain engenders negative emotions and induces the call for corrective actions that might take the form of a criminal act (Agnew, 1992, 2006, 2009a, 2009b). Tension caused by economic stress, relational challenges, and communication difficulties can easily spill over to someone intimate such as a dating partner. Further, the likelihood of turning to crime increases if the “strainful” event is perceived to be unjust, severe, and chronic, or when the cost of crime is low (Agnew, 2001, 2013). Compelling evidence also noted the link between relationship status and the severity of intimate violence, with dating violence more commonly occurring in relationships of greater

commitment because such violence might be perceived as more acceptable and justifiable (see Katz, Kuffel, & Coblenz, 2002; Kenney & McLanahan, 2006). Given that women invest greater effort in relationship maintenance (e.g., Broidy & Agnew, 1997), relational strain might bring greater distress to them than men. Yet, in response to stressors, empirical evidence revealed that males tend to be more problem-focused, whereas females, who are more emotionally focused, are more likely to seek social support, internalize issues, or become depressed (e.g., Broidy & Agnew, 1997; Nolen-Hoeksema & Aldao, 2011; Ptacek, Smith, & Dodge, 1994). Based on this information, this study hypothesized that strain resulting from daily hassles, relationship distress, and couple conflict would be associated with greater likelihood of violent outbursts in dating. Additionally, given the gender differences in coping, this study hypothesized that these factors would be more pertinent to male participants than females.

Data

This study used data from the International Dating Violence Study (IDVS),¹ which is based on a survey of approximately 14,000 undergraduates from 32 nations collected between 2001 and 2006, to examine the study hypotheses. Designed to investigate the risk factors of dating violence from both the victims' and the perpetrators' perspective, the data set included students from 16 U.S. universities and colleges, representing a college population from a combination of public, private, rural, urban, and suburban institutions. With minor exceptions, investigation primarily took place in social science classes (e.g., psychology, family studies, criminology, and sociology) taught by either the research consortium members or classes where permission could be sought. Student participants were reassured of data anonymity and given the freedom to refuse any questions. Overall, the participation rate ranged from 85% to 95% (Straus, 2004a, 2004b, 2008, 2011). Focusing on emerging adults, this study restricted the analysis to students 18 to 25 years old ($N = 3,495$). Additionally, this study limited the analyses to students who (a) attended colleges or universities in the United States; and (b) had at least one heterosexual dating relationship in the last 12 months that had lasted for at least 1 month (missing data < 0.1%).

Dependent variables

The dependent measures, which were derived from the Conflict Tactics Scales,² comprised two composite scales that were used to assess the participants' experience as perpetrators of physical and psychological aggression in dating. Prior to summing the response values of the items to construct the scales, the participants' responses were recoded so that a higher value reflected a greater level of aggression. Factor analyses of relevant items using the principal component method and varimax solution indicated a one-factor solution for both dependent measures, with all items loaded on one factor and at least 0.60 on their respective factor. Further, all items have also been tested in prior research to demonstrate high reliability and validity (Straus, 2004a, 2004b).

¹Data for IDVS is available for downloading from the website of the Inter-University Consortium for Political and Social Research.

²The Conflict Tactics Scale was originally developed by Straus (1979). The items of the scales in this study were derived from the Revised Conflict Tactics Scale, which measures different types of violence such as assault, injury, aggression, and coercion (see Straus, Hamby, Boney-McCoy, & Sugarman, 1996).

Social bonding

Social bonding, operationalized as the participants' level of social integration and commitment to societal norms, life goals, and network involvement, was assessed using three variables. Factor analysis and reliability tests were initially conducted to determine if these measures could be combined to construct a composite measure. Because the underlying structure of the items did not share a single factor in common nor did they cluster together as a group empirically and due to limited face validity (a low alpha; i.e., less than 0.65), the items were not aggregated into a single factor, and rather to represent them as three independent and dichotomous variables in the regression models.

Personal control

The concept of personal control captured the participants' ability to exercise constraints, self-centeredness, risk-taking behaviors, impulsivity, and tendency to alienate and disconnect from social norms. Self-control, a dichotomous variable, signified the participants' self-control in resolving relational challenges. Antisocial tendencies assessed deviant attributes (e.g., deception, rule breaking, impulsivity, and mistreatment of others) grounded on clinical symptoms described in the *Diagnostic and Statistical Manual of Mental Disorders* (4th ed. [DSM-IV]; American Psychiatric Association, 1994) as a scale measure.

Strain

In this study, strain was represented by three continuous variables deemed to be stress-provoking. First, the daily hassles scale was a holistic measure of the extent of irritation or frustration the participants encountered in their day-to-day life. Additionally, relationship distress assessed eight relational domains participants shared with their dating partner with which they expressed dissatisfaction. Finally, couple conflict was a measure of the participants' common clashes that were likely to threaten their relational solidarity.

Other relational variables

As part of the effort to assess the relative influence of bonding, personal control, and strain, the study analyses controlled for the participants' dating relationship dynamics using two dichotomous variables. Relational commitment was used as the basis to evaluate the strength of their dating relationship, and sexual involvement assessed if sexual intercourse was an integral part of their dating relationship.

Sociodemographic variables

Several sociodemographic covariates were also included in the data analyses as control variables: gender, age, and father's and mother's educational level. About 30.8% of the participants in this study were male; average age was 20 years old ($SD = 1.69$). Father and mother's educational levels, an indication of the participants' household socioeconomic status, were measured in years. See Appendix for more detailed information (psychometric properties and sample items) for the variables included in this study.

Analytical approach

The analysis was conducted in several stages. First, the frequency distributions of different violent acts were calculated to gauge the prevalence of each behavior in the total sample, and separately by gender. Following Kaukinen et al. (2012), mean values for each item were also estimated to provide an indication of chronicity. *T* tests and nonparametric tests (i.e., Wilcoxon–Mann–Whitney test) were then used to examine statistical differences by gender in the frequency and chronicity of the aforementioned items (see Table 1) as well as the means of the dependent and independent variables (see Table 2). Next, this study used multiple regression to estimate the association of the independent variables with the participants' likelihood of imposing physical or psychological aggression in their dating relationship. Full information maximum likelihood was used to predict the model parameters based on available data. Although missing data did not present a challenge in the analysis (missing data were < 1%), this procedure, nonetheless, allowed estimation of parameters efficiently in the presence of missing data (Enders & Bandalos, 2001). Finally, because differences in magnitude might be concealed when both genders were estimated together, this study assessed the models separately by gender to determine if any pair of regression coefficients for male and female participants was significantly different from one another using the formula postulated by Brame, Paternoster, Mazerolle, and Piquero (1998):

$$z = \frac{\theta_1 - \theta_2}{\sqrt{SE \theta_1^2 + SE \theta_2^2}}$$

Results

Table 1 presents the frequency and chronicity of physical and psychological perpetration reported in dating. On average, female participants admitted throwing things, pushing and shoving, or slapping their dating partner more frequently and persistently than males. Additionally, their rates of insulting, yelling, stomping out of an agreement, and spiting their partner were statistically higher than the rates reported by their opposite gender. Females also had higher chronicity scores on the first three aforementioned behaviors.

Table 2 reports the descriptive statistics of the variables of interest. Overall, this study found that female participants reported higher rates of physical and psychological perpetration, on average. Further, a greater proportion of female participants claimed to be goal-oriented and attending religious services compared to their male counterparts. More male participants admitted spending time with delinquent peers than females, however. *T*-test analysis indicated statistical differences in mean values reported by female and male students for antisocial tendencies, daily hassles, and relationship distress, with male participants having higher average scores. Among other variables, more women claimed that sex was part of their dating relationship than men, on average. With respect to their sociodemographic characteristics, male participants tended to be older and with a slightly higher level of paternal education than women, on average.

Findings on physical aggression

Table 3 presents the results from the multiple regression for the pooled sample. Table 4 presents analyses by gender.

Contrary to the study predictions, none of the social bonding variables were significantly associated with the participants' engagement in physical aggression. Controlling for other variables in the model, the participants who could assert their self-control in dating, however, were less likely to engage in physical altercations with their dating partner. Specifically, these participants scored 1.65 units lower in physical perpetration ($p < .001$), on average. Antisocial tendencies, however, were positively linked to physical aggression in dating, as for every unit increase in the antisocial tendencies scale, the participants' likelihood of imposing violence increased by 0.09 units ($p < .001$). All strain variables but relationship distress were positively associated with physical violence in dating. Arguably, the more hassles or conflicts the participants experienced, the greater the likelihood of physical aggression ($p < .001$). Being sexually involved was also associated with increased incidence of physical aggression. On average, the participants who reported sex as part of their dating relationship scored 0.86 units higher in physical perpetration than their counterparts who did not ($p < .001$). Regarding gender, male participants, on average, scored 1.12 units lower in physical aggression compared with their female counterparts ($p < .001$). Detailed gender analyses on Table 4 showed that delinquent peers affiliation had a marginal association with the male participants but not the females ($z = -2.301$). In addition, when other effects were held constant, females' self-control was negatively associated with physical perpetration ($z = 4.438$). This variable had no statistically significant influence among the male participants.

Findings on psychological aggression

Moving to psychological aggression, in the pooled sample, the participants who expressed commitment to goal attainment and those who spent time with delinquent peers were more likely to exhibit psychological aggression in dating ($p < .001$ and $p < .01$, respectively), despite the fact that these variables exhibited no association with physical aggression. Concerning personal control, only self-control was significantly associated with psychological aggression. That is, on average, the participants who acknowledged their ability to control their feelings when their partner hassled them, on average, were less likely to impose psychological aggression, scoring 2.1 units lower, compared to their counterparts who indicated otherwise ($p < .001$). Conversely, controlling for other variables, daily hassles, relationship distress, and couple conflict, all sources of strain in the model were positively associated with psychological aggression. In other words, the more strain that the participants reported, the greater the prevalence of psychological aggression. Although relational commitment had a nonsignificant statistical association with psychological aggression, the participants who reported sexual intercourse as part of their relationship scored 3.3 units higher, on average, in psychological aggression ($p < .001$), a similar finding shared with the physical aggression model (i.e., Model 1). Finally, not only were the male participants less likely to impose physical aggression than the females, but they were also less likely to impose psychological violence. The significant z tests in Table 4 showed self-control was negatively related to psychological aggression for females but had a statistically

marginal influence on male participants ($z = 2.097$). Although antisocial tendencies had a positive association with psychological violence for the male participants, it had no statistically significant influence on the females ($z = 2.203$).

Discussion and concluding remarks

Dating violence is a widespread phenomenon among college students that has garnered much empirical attention in recent decades (Barrick et al., 2013; Kaukinen et al., 2012; Luthra & Gidycz, 2006; Miller, 2011). Using data from the IDVS, this study examined two types of college dating violence (i.e., physical and psychological aggression) and their association with social bonding, personal control, and strain. By incorporating different sets of measures that corresponded to these concepts into the study's empirical models and by linking these factors to form a coherent model of theory-based risk and protective factors, more effective prevention strategies can be developed by university officials to protect young college students from engaging in abusive dating relationships.

In sum, this study found that at least two types of social bonding (commitment to goal attainment and spending time with delinquent peers) were associated with psychological aggression in dating even though they had no influence on physical aggression. We suspect that college student participants' overly committing to life goal attainment might detract them from nurturing or committing to a serious dating relationship. Likewise, association with delinquent peers, as suggested by previous literature, could encourage commission of deviant behaviors through observational learning (e.g., Vogel & Keith, 2015; Yarbrough et al., 2012).

Aligned with the study hypothesis, greater self-control was associated with lower likelihood of dating violence perpetration, either physically or psychologically. Although a limited number of studies have examined the function of self-control in the context of college dating violence, low self-control has been found in a few studies to be linked to both physical and psychological aggression in dating violence (e.g., Gover, Kaukinen, & Fox, 2008; Jennings, Park, Tomsich, Gover, & Akers, 2011). Antisocial tendencies, on the contrary, were significantly associated with physical aggression; however, not with psychological aggression. Although Hines and Straus (2007) were less interested in this direct association, they indicated that antisocial traits fully mediated the association between binge drinking and dating violence, another evidence of the harmful effect of antisocial tendencies in dating. Consistent with the hypotheses, and with literature highlighting the roles of strain on criminal coping and deviance (Agnew, 1992, 2006, 2009a, 2009b, 2013), this study found that almost all the strain measures (i.e., daily hassles, relationship distress, and couple conflict) had a positive association with dating violence, further attesting to the detrimental influence of strain in healthy relationship preservation.

Whereas relational commitment exerted no influence, sexual involvement was related to both types of dating violence, perhaps because violence was perceived to be more acceptable in dating relationships that seem to be moving forward or "getting serious" (see Katz et al., 2002). When gender was considered, self-control was more pertinent to females' experience of physical and psychological violence than to males', contrary to the study hypothesis. In

other words, whereas no statistically significant relationship was found among the male participants, self-control had a protective effect on females. Last but not least, antisocial tendencies served as a risk factor for increased psychological violence among males, but not females.

These findings highlight the need for college-based interventions to address both risk and protective factors associated with bonding, control, and strain in dating. Despite the fact that emerging adults in postsecondary educational settings might become more independent of parental influence, many might not have acquired the mature problem-solving skills needed to resolve relational challenges. In addition to teaching effective conflict resolution and coping skills to minimize antisocial propensities in dating and associations with antisocial peers, effective interventions are necessary to educate students on how unhealthy dating relationships can impede the realization of future educational and career goals. Given the advancement of technology and prevalence of social media gadgets, web-based interventions that deliver health promotion education might provide a potential channel to tailor specific gender-relevant risk and protective factors.

Because stressors associated with daily activities and relational difficulties could serve as precursors for college IPV, we recommend that universities and colleges take proactive steps in promoting a campus culture that helps reduce life strain. More faculty–student organizations and mentoring programs can be offered to foster healthy campus interactions or integration and minimize the influence of delinquent peers. Additionally, campus counseling programs can provide one-on-one coaching and group therapy designed to reduce antisocial tendencies and form healthy dating commitments among college students. If sexual activity is involved, knowledge about healthy relationship dynamics can be extended to students through campus clinics, health courses, and short seminars hosted by qualified medical professionals or scholars with the participants' privacy protected.

Although the finding that female students were more likely to perpetrate dating violence than their male counterparts is not new and has in fact been supported by several studies (e.g., Archer, 2000; Gover et al., 2008), it should be noted that the participants in this study were not necessarily dating each other, and could have been dating someone off-campus (Gover et al., 2008). Additionally, it is critical to point out that women continue to face a greater likelihood of sustaining severe injuries caused by dating violence due to their generally smaller physical attributes (Archer, 2000). Although many college students might continue to depend on their parents' income to fund daily expenses or to qualify for financial aid or scholarships, this subpopulation, in general, can represent a higher socioeconomic category than the general population. The fact that parents' education (which was used as a measure of the participants' socioeconomic status) was not significantly associated with dating violence among young college students implies that violence can be a universal phenomenon across income and socioeconomic levels.

Thus far, the findings of this study have highlighted the importance of understanding dating violence within the context of bonding, control, and strain, but certain limitations should be noted. First, the cross-sectional study design prevents the establishment of any causal order of variables in this study. Second, self-reported data might be susceptible to social

desirability bias, particularly with respect to reporting physical aggression by male students. Further, convenience samples cannot be generalized to all college students. However, the fact that participating sites comprised 16 universities or colleges throughout the United States increases the likelihood that this study can offer valuable insight into factors that might contribute to the dynamics of college dating violence and development of effective prevention or intervention.

Acknowledgments

Funding

This study effort was supported by the UTEP BUILDING SCHOLARS NIH Award #1RL5MD009592.

APPENDIX Item Descriptions

Social bonding	
Commit to attain goals	I have goals in life that I try to reach
Spend time with delinquent peers	I spend time with friends who have been in trouble with the law
Attend religious service	I attend a church, synagogue, or mosque once a month or more
Personal control	
Self-control	There is nothing I can do to control my feelings when my partner hassles me ^a
Antisocial	1. I often lie to get what I want 2. I lie to make myself look better 3. I often break things that belong to others on purpose 4. I often do things that are against the law 5. I often do things that other people think are dangerous 6. I have trouble following the rules at work or in school 7. I don't think about how what I do will affect other people 8. I only treat people badly if they deserve it 9. I feel sorry when I hurt someone ^a
Strain	
Daily hassles	1. Finding time for meals is hard for me 2. My housing is not satisfactory (e.g., too much noise, heating problems, run down, problems with neighbors) 3. My friends pressure me to do things I don't want to do 4. People at work or school don't get along with me 5. My partner often nags me 6. I get hassled because of who I am 7. People often interrupt me when I'm trying to get things done 8. I don't have enough money for my daily needs 9. I don't like my work or classes
Relationship distress	1. I wish my partner and I got along better than we do 2. My partner treats me well ^a 3. My partner and I have a very good relationship ^a 4. My sex life with my partner is good ^a

Social bonding	
Couple conflict	5. I have a good social life with my partner ^a
	6. My relationship with my partner is worth the effort I put into it ^a
	7. I have thought seriously about ending my relationship with my partner
	8. There are more bad things than good things in my relationship with my partner
	1. My partner and I disagree about how much money to spend when we go places
	2. My partner and I disagree about telling other people about things that happen between us
	3. My partner and I disagree about my friends and family
	4. My partner and I disagree about his or her friends and family
	5. My partner and I disagree about whether it is okay to tell each other we disagree
Other relational variables	6. My partner and I disagree about when to have sex
	7. My partner and I disagree about what types of affection are okay in public
	8. My partner and I disagree about each other's irritating habits
	9. My partner and I disagree about how much time we should spend
Relational commitment	Sometimes I have doubts that my relationship with my partner will last ^a
Involved sex	Is (was) sex a part of your relationship?

Source: International Dating Violence Study.

^aReverse coded.

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Table 2

Descriptive Statistics of Variables in Analysis.

Variables	Pooled sample (N = 3,495)				Male (n = 1,075)		Female (n = 2,420)		Statistical Tests	Response format	α
	Min	Max	M	SD	M	SD	M	SD			
Dependent variables											
Physical aggression (scale) ^a	5	37	7.112	4.267	6.687	3.688	7.301	4.489	3.930 ***	8-point response scale (this has never happened to more than 20 times in the past year)	0.76
Psychological aggression (scale) ^a	4	32	11.947	6.758	10.885	6.443	12.418	6.842	6.217 ***		0.78
Social bonding											
Commit to attain goals	0	1	0.966	0.181	0.944	0.230	0.976	0.153	4.810 ^b ***	Agree vs. disagree ^c	N/A
Spend time with delinquent peers	0	1	0.462	0.499	0.588	0.492	0.406	0.491	-9.965 ^b ***	Agree vs. disagree ^c	N/A
Attend religious service	0	1	0.487	0.500	0.453	0.498	0.502	0.500	2.654 ^b **	Agree vs. disagree ^c	N/A
Personal control											
Self-control	0	1	0.890	0.312	0.886	0.317	0.892	0.310	0.501 ^b	Agree vs. disagree ^c	N/A
Antisocial (scale) ^a	9	32	15.617	3.746	17.480	3.742	14.790	3.439	-20.761 ***	4-point response scale (strongly disagree to strongly agree)	0.73
Strain											
Daily hassles	0	9	1.984	1.651	2.432	1.731	1.786	1.574	-10.858 ***	Number of hassles	N/A
Relationship distress (scale) ^a	8	32	15.545	4.834	16.155	4.372	15.274	5.003	-4.993 ***	4-point response scale (strongly disagree to strongly agree)	0.85
Couple conflict (scale) ^a	9	35	17.965	4.422	18.698	4.101	17.639	4.521	-6.573	4-point response scale (strongly disagree to strongly agree)	0.79
Other relational variables											
Relational commitment	0	1	0.600	0.490	0.592	0.492	0.603	0.489	0.619 ^b	Agree vs. disagree ^c	N/A
Involved sex	0	1	0.755	0.430	0.723	0.448	0.769	0.422	2.750 ^b **	Agree vs. disagree ^c	N/A
Sociodemographic variables											
Male	0	1	0.308	0.462	—	—	—	—	—	Male, female	N/A
Age	18	24.503	20.088	1.692	20.322	1.712	19.984	1.673	-5.473 ***	Age in number	N/A
Father's education	2	18	13.534	3.457	13.743	3.486	13.442	3.441	-2.376 *	Years in number	N/A
Mother's education	2	18	13.424	3.332	13.559	3.360	13.364	3.319	-1.593	Years in number	N/A

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^fFactor analyses, which were conducted on all scale items that correspond to the construct, indicated a one-factor solution.

^hResults from the Wilcoxon–Mann–Whitney test, otherwise *t* test.

^cResponse categories have been altered from the original survey.

* refers to $p < 0.05$,

** refers to $p < 0.01$,

*** refers to $p < 0.001$

Table 3
Multiple Regression Analyses with Physical or Psychological Aggression as the Dependent Variables.

Variables	Model 1			Model 2		
	(Physical aggression)			(Psychological aggression)		
	<i>b</i>	<i>SE</i>	95% CI	<i>b</i>	<i>SE</i>	95% CI
Intercept	4.484	1.050	*** [2.426, 6.543]	-1.300	1.561	[-4.357, 1.762]
Social bonding						
Commit to attain goals	0.329	0.380	[-0.416, 1.073]	2.506	0.565	*** [1.400, 3.614]
Spend time with delinquent peers	0.092	0.143	[-0.189, 0.373]	0.729	0.213	** [0.311, 1.146]
Attend religious service	-0.121	0.139	[-0.394, 0.153]	-0.264	0.207	[-0.700, 0.143]
Personal control						
Self-control	-1.651	0.227	*** [-2.095, -1.207]	-2.080	0.337	*** [-2.739, -1.419]
Antisocial	0.090	0.023	*** [0.044, 0.135]	0.037	0.034	[-0.030, 0.105]
Strain						
Daily hassles	0.171	0.047	*** [0.079, 0.264]	0.142	0.070	* [0.005, 0.279]
Relationship distress	0.022	0.019	[-0.015, 0.060]	0.078	0.029	** [0.022, 0.134]
Couple conflict	0.171	0.021	*** [0.130, 0.211]	0.458	0.031	*** [0.398, 0.518]
Other relational variables						
Relational commitment	-0.001	0.161	[-0.318, 0.315]	-0.081	0.240	[-0.552, 0.389]
Involved sex	0.861	0.171	*** [0.526, 1.196]	3.334	0.258	*** [2.829, 3.839]
Sociodemographic variables						
Male	-1.118	0.159	*** [-1.431, -0.806]	-2.209	0.237	*** [-2.674, -1.744]
Age	-0.046	0.041	[-0.126, 0.034]	-0.009	0.060	[-0.127, 0.109]
Father's education	-0.043	0.027	[-0.096, 0.010]	0.002	0.040	[-0.077, 0.080]
Mother's education	-0.011	0.028	[-0.066, 0.043]	0.041	0.042	[-0.040, 0.122]

Note: *N* = 3,495.

* refers to $p < 0.05$,

** refers to $p < 0.01$,

*** refers to $p < 0.001$

Table 4

Multiple Regression Analyses by Gender.

Variables	Physical aggression				Psychological aggression			
	Male		Female		Male		Female	
	b	SE	b	SE	b	SE	b	SE
Intercept	4.201	1.700	* 3.860	1.337	** 0.158	0.158	-5.283	2.799
Social bonding								
Commit to attain goals	-0.489	0.482	0.831	0.555	-1.796	†	2.654	0.795
Spend time with delinquent peers	-0.382	0.227	† 0.284	0.180	-2.301	*	0.167	0.373
Attend religious service	0.146	0.223	-0.238	0.174	1.357		-0.269	0.367
Personal control								
Self-control	-0.218	0.358	-2.249	0.285	*** 4.438		-1.027	0.591
Antisocial	0.115	0.035	** 0.081	0.030	** 0.746		0.144	0.058
Strain								
Daily hassles	0.117	0.072	0.217	0.060	*** -1.069		0.199	0.119
Relationship distress	0.025	0.032	0.014	0.024	0.280		0.068	0.052
Couple conflict	0.141	0.035	*** 0.183	0.025	*** -0.967		0.389	0.057
Other relational variables								
Relational commitment	-0.333	0.248	0.146	0.206	-1.488		-0.135	0.408
Involved sex	0.696	0.271	* 0.933	0.216	*** -0.683		2.868	0.450
Sociodemographic variables								
Age	-0.069	0.064	-0.026	0.051	-0.527		-0.064	0.296
Father's education	-0.063	0.043	-0.029	0.034	-0.615		0.017	0.049
Mother's education	-0.005	0.044	-0.019	0.035	0.250		0.036	0.050

Note: b = unstandardized coefficients; SE = standard errors; CI = confidence interval of bs.

† $p < .10$.* $p < .05$.** $p < .01$.*** $p < .001$.