

**Bowling Green State University**  
**The Center for Family and Demographic Research**

<http://www.bgsu.edu/organizations/cfdr>

Phone: (419) 372-7279      cfdr@bgsu.edu

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**ADOLESCENT DATING VIOLENCE:  
THE INFLUENCE OF FRIENDSHIPS AND SCHOOL CONTEXT**

Peggy C. Giordano, Angela M. Kaufman, Wendy D. Manning, Monica A. Longmore

Department of Sociology and  
Center for Family and Demographic Research  
Bowling Green State University  
Bowling Green, Ohio

## ABSTRACT

Prior research has examined parental and peer influences on adolescent dating violence, but fewer studies have explored the broader social contexts of adolescent life. The present research examines the effect of variations in school context on IPV perpetration, while taking into account parental, peer and demographic factors. Results indicate that net of parents' and friends' use of violence, the normative climate of schools, specifically school-level partner violence, is a significant predictor of respondents' own IPV. Norms about dating also contributed indirectly to odds of experiencing IPV. However, a more general measure of school-level use of violence toward friends is not strongly related to variations in IPV, suggesting the need to focus on domain-specific influences.

Social learning theory has played an influential role as an underpinning of recent studies of teen dating violence, extending the longer tradition of research on adult intimate partner violence. Much prior research relying on this perspective has emphasized family effects, and the phenomenon of intergenerational transmission (Renner and Whitney 2012; Cui, Durtchi, Lorenz, Donnellan and Conger 2010). Yet it is well recognized that adolescence is a phase of the life course characterized by a heightened interest in friendship and peer relationships (Brown and Bakken 2011), suggesting the need to investigate further the potential impact of such extra-familial relationships. Some prior research has examined peer influences on dating violence, investigating the role of social skills deficits (Linder and Collins 2005), antisocial friends (Capaldi 2001; Foshee, Benefield, Reyes, Ennett, Faris, Chang, Hussong and Suchindran 2013), poor friendship quality (Foshee et al. 2013; Vagi, Rothman, Latzman, Tharp, Hall and Breiding 2013), friends' negative attitudes toward women (Capaldi 2001), or the beliefs about friends' involvement in dating violence (Reed, Silverman, Raj, Decker and Miller 2011).

The current study contributes to this tradition first by examining the effect of friends' own use of violence within the context of the friendship as a socialization experience with the potential for carry-over effects to the realm of romantic ties. We control for a background of parental abuse, in order to determine whether exposure to friends' violence explains additional variance (see Williams, Craig, Connolly, Pepler and Laporte 2008). Second, we consider that a comprehensive understanding of the role of peers requires assessment of the broader social climate within which both friendships and romantic relationships develop. We develop indicators of the normative climate of schools by aggregating reports about hitting friends and hitting romantic partners to create school-level indices. We investigate how the normative climates of schools influence the odds of individuals reporting intimate partner violence (IPV)—in general and once the respondent's own experience of victimization by parents and close friends has been taken into account. Finally, recognizing that school climates may encompass a range of attitudes and behaviors concerning dating and sexuality, and not simply variations in the presence/absence of violence, we determine whether schools characterized by relatively liberal attitudes about dating relationships influence the odds of experiencing IPV perpetration. Prior research has shown that at the individual level,

both actual and perceived cheating are significant risk factors for violent conflict within a focal relationship (Giordano, Soto, Manning and Longmore 2010; Volz and Kerig 2010). Thus, analyses explore whether the normative climate with respect to such dating behaviors is significantly linked with patterns of violent conflict within teen dating relationships. To examine these dimensions of friendship and peer influence, we draw on data collected in connection with the first wave of the Toledo Adolescent Relationships study (TARS). The sample selection process was based on enrollment records of all schools in Lucas County, Ohio which provided a range of distinct school contexts ( $N = 32$ ) and resulted in personal interviews with a large, diverse sample of male and female adolescents ( $N = 467$  males and 488 females).

## **BACKGROUND**

### ***Parents' Use of Violence***

Witnessing parents' use of violence against each other and child abuse are known risk factors for later intimate partner violence, and prior research has documented effects for both forms of intergenerational exposure (see e.g., Milletich, Kelley, Doane and Pearson 2010). However, in a recent review, Foshee, Reyes, and colleagues (2011) concluded that child abuse, as the more direct form of victimization, is more consistently linked to later violence within intimate relationships.

Using the Longitudinal Study of Adolescent Health (Add Health) data on young adults ages 18-27, Renner and Whitney (2012) found that a history of childhood maltreatment was significantly associated with IPV for both male and female respondents. While most studies have used retrospective reports of childhood abuse to test intergenerational transmission of violence theories, studies using prospective data have found similar results. Examining a sample of individuals who had official records of childhood abuse and neglect and a matched control group, White and Widom (2003) found that abused and neglected children reported significantly higher rates of IPV perpetration in adulthood than did the control group, and that this relationship was similar for both men and women (see also Cui et al. 2010).

Some researchers have suggested that due to methodological limitations of prior research, it is premature to conclude that intergenerational transmission processes are inevitable (Thornberry, Knight and Lovegrove 2012). For example, Stith and colleagues (2000) conducted a meta-analysis of 39 studies to examine the relationship between growing up in a violent home and experiencing a violent marital relationship in adulthood, and found support for a social learning perspective of violence. However, the authors noted that correlations were weak to moderate, with effect sizes varying considerably across different sample groups. Such findings suggest that during adolescence it is important to include attention to influences outside of the parental home as well as foundational experiences within the family.

### ***The Role of Adolescent Friendships***

Recognizing that peer relationships are central to child and adolescent development (Hartup 1978; Sullivan 1953), prior research has also incorporated various dimensions of peer relationships into studies of teen dating violence. Research has emphasized processes deriving from attachment theories, as well as dynamics associated with social learning theories. For example, using a five-wave panel study of adolescents in the 7<sup>th</sup>-12<sup>th</sup> grades, Foshee et al. (2013) found that individuals with friends who engaged in dating violence were significantly more likely to experience dating violence themselves throughout adolescence. Conversely, adolescents who reported higher relationship quality with their friends and whose friends held more pro-social beliefs were at a decreased risk for dating violence in adolescence. Similarly, Linder and Collins (2005) found that individuals who reported higher quality relationships with peers at age 16 reported lower levels of both IPV perpetration and victimization in subsequent romantic relationships at age 21. Adolescent friendship quality was based on ratings of security, presence of conflict, conflict resolution, disclosure and closeness in their friendships. Also incorporating both parental and peer measures, Stocker and Richmond (2007) found that hostility in close friendships at ages 14-16 was positively associated with hostility in romantic relationships when respondents were aged 17-19.

Focusing primarily on peers and using prospective longitudinal data from the Oregon Youth Study, Capaldi, Dishion, Stoolmiller and Yoerger (2001) examined risk factors for physical and psychological aggression among males. Results indicated that both deviant peer associations and hostile talk about women in late adolescence were significantly and positively associated with aggression toward a romantic partner in young adulthood. Relying on a large sample of undergraduate and graduate students, Cochran, Sellers, Wiesbrock and Palacios (2011) found that respondents who indicated more favorable actual or anticipated reactions of significant others (parents, friends and partners) to their victimization by a partner, or who had been victimized themselves were more likely to experience IPV. Williams et al.'s (2008) approach to dating aggression also emphasized social learning mechanisms, as respondents' reports of the frequency of peers' use of a range of violent 'tactics' against them were related to later dating violence perpetration and victimization. We build on this prior research on peers by including a measure that is similar to that used by Williams et al. (2008) in the current investigation of friendship and school-level effects.

### ***Contextual Effects on Teen Dating Violence***

Scholars have emphasized that friendship relationships necessarily unfold against a broader socio-economic landscape that may directly and indirectly influence patterns of violent behavior (Cohen and Felson 1979; Sampson and Groves 1989; Sampson, Raudenbush and Earls 1997; Morenoff, Sampson and Raudenbush 2001; see also Bronfenbrenner 1986). Although many studies have explored the role of neighborhood effects on crime and general violence, Reed et al. (2009) found that perceptions of neighborhood violence and the belief that violence is needed for survival were significant predictors of IPV perpetration among a sample of African American men. Browning's (2002) research relied on a neighborhood-level measure of attitudes about family violence and also found that this was a significant predictor of non-lethal IPV. Finally, Schnurr and Lohman (2013) analyzed the moderating effect of neighborhood collective efficacy on dating violence perpetration in adolescence. They found that among males, collective efficacy in the neighborhood actually increased the likelihood of violence perpetration in

adolescent relationships, and that neighborhood collective efficacy also served to strengthen the relationship between domestic violence in the home and adolescent dating violence.

These studies of neighborhood effects indicate a significant impact of the broader social context, but scholars with an interest in youth development have stressed the critical role of the school for understanding the character of adolescent life (Eccles and Roeser 2011; Kasen, Cohen, Chen, Johnson and Crawford 2009; Eder, Evans and Parker 1995; Eder and Kinney 1995; Fleming, Catalano, Mazza, Brown, Haggerty and Harachi 2008). Within the confines of the school, unique status systems and norms emerge that draw from the broader neighborhood environments in which they are located but are never an exact replica (Corsaro 1985, 2005; Eder et al. 1995). In an examination of general patterns of violence, Felson, Liska, South and McNulty (1994) found that an aggregated measure of school values regarding violence was a significant predictor of interpersonal violence, controlling for respondents' own commitment to values regarding violence. More recently, Klein, Cornell and Konold (2012) analyzed the relationship between school climate and a range of different risk behaviors, including carrying a weapon to school and engaging in physical fights. The researchers found that students who felt that bullying and teasing were widespread at their school were more likely to engage in risk behaviors themselves. Specific to intimate partner violence, O'Keefe (1998) analyzed predictors of dating violence among a sample of Los Angeles high school students. Results indicated that both community and school violence exposure, measured by the type and frequency of violent behaviors that respondents witnessed during the past year, were significant predictors of IPV perpetration, and this finding held for both males and female respondents.

The studies described above examined how general exposure to violence may affect both generally violent and IPV-specific behavior, but most studies have not examined variations in school-level exposure to IPV itself. One exception is Straus and Savage's (2005) International Dating Study, which relied on questionnaire data from college students and included aggregated IPV-specific behavioral predictors of individual IPV outcomes. In this study, school climate was measured by the percentage of students at each university who reported being physically attacked or who injured a dating partner in the last year. In

addition to the finding that child maltreatment (neglect) increased the likelihood of engaging in violence against a partner, results indicated that attending a university with a high level of dating violence was positively and significantly associated with IPV perpetration at the individual-level, and further, that the link between childhood maltreatment and engaging in violence against a partner was stronger at universities in which dating violence was more prevalent. In the current analysis, we rely on responses of all individuals in the study who attended the same school to construct aggregated measures of IPV perpetration, as well as school-level reports about perpetrating violence against friends. This will allow us to distinguish the potential role of school-level exposure to IPV and friends' use of violence, and whether such broader contextual factors matter for understanding IPV, once more proximal social influences (parental abuse, victimized by friends' aggression) have been taken into account.

### ***Broadening the Concept of School Climate***

The most straightforward approach to understanding social influences on violence has been to concentrate on the violent attitudes or behaviors of significant others (and more rarely the "wider circle," as reflected in studies of neighborhood or school effects). Yet it is potentially useful to broaden the scope of our inquiry and conceptualization of what constitutes the normative climate of a school, to include other attitudes and behavioral repertoires that may also figure into violence risk. Research investigating the influence of negative attitudes toward women on men's violence toward their partners falls within this tradition, as such investigations proceed from the assumption that while outside the realm of violence, such attitudes may nevertheless prove consequential for understanding patterns of IPV (Parrott and Zeichner 2003; Allen, Swan and Raghavan 2009).

Recognizing that dating violence may stem from dynamics that are somewhat unique to romantic relationships, we extend our assessment of school climate to include variation in norms about behavior within the dating realm. We focus particularly on cheating behaviors, as cheating and jealous reactions have been significantly related to relationship discord and violence (Giordano et al. 2010; Volz and Kerig 2010). Miller and White's (2003) qualitative study is particularly important in highlighting that concerns

about cheating are often implicated in girls' as well as boys' use of violence within the context of romantic relationships. While cheating references dyadic behavior and a third party, a sense of what is considered desirable, acceptable, tolerable, or subject to derision is learned through processes of socialization (Harris 1977). In the current analysis, we explore whether the broader school climate with respect to norms about this aspect of dating behavior is significantly related to variations in IPV reports—in general and after taking into account exposure to violence from parents, friends and at the school level.

### *Mechanisms of Transmission beyond the Realm of Close Ties*

Most of the research on mechanisms of social influence has concentrated on the centrality of close, intimate ties. Sutherland and other social theorists have posited that the intimacy of ties is generally associated with influence (Sutherland 1939; Homans 1950; Ridgeway 2006) as: a) the reoccurring nature of such interactions provides numerous opportunities for communication and modeling to occur, and b) views/opinions of valued others are believed to 'count' more. Yet as Simmel (1950) theorized, less intimate others possess an 'attitude of objectivity' that is often difficult to ignore. Giordano (1995), for example, in a study of messages written in high school yearbooks by close friends and the 'wider circle' of friends and acquaintances, noted that the latter often appear to be a "tougher audience" for the developing adolescent. Although friendships develop around areas of similarity, these smaller friendship groups necessarily must navigate a wider arena of peers who may offer a stronger element of contrast (Sussman, Pokrel, Ashmore and Brown 2007). Simmel noted that "for the actions of the individual, his difference from others is of far greater interest than is his similarity with them."

How do these broader normative climates exert an influence, when almost by definition the 'wider circle' does not have recurring, intimate access to the individual? The work of Eder et al. (1995) and other interpretive theorists (see e.g., Corsaro 1985, 2005) is particularly instructive in this regard. These researchers focus heavily on various forms of communication that are not limited to the small circle of close friends, such as gossip, storytelling, teasing and ridicule, that serve to communicate and in effect create localized cultural worlds during the adolescent period (Fine and Kleinman 1983). Along with

these more ritualized forms of communication, students engage in more routine, taken-for-granted communications with a range of others characterized by a measure of ‘nearness and remoteness’ (Simmel 1950, Giordano 1995) -- friends of friends, fellow-travelers on the bus, bandmates, teammates, siblings’ friends, dating partner’s friends, classmates, friends from grade school. These forms of communication, combined with direct observation, create cultural knowledge and act as a socializing influence that transcends the attitudes and opinions of close friends.

Intimate partner violence may be less subject to direct observation than other forms of violence, but students may be exposed to visible manifestations (e.g., a girlfriend is slammed against a locker; a boyfriend is slapped at a party). As with traditional forms of school violence, the communication that surrounds a given act of violence (e.g., gossip about the incident) also extends the adolescent’s understanding about its meaning. For example, in a series of focus groups, Johnson and colleagues (2005) found that some teens viewed IPV as reflecting that a given relationship is a serious one, or a sign of being in love, rather than a destructive pattern that calls for immediately breaking up with the offending partner. Cheating behaviors are also subject to direct observation, gossip, as well as other forms of communication about how such violations of trust should be viewed and managed. Eder (1995) suggested that within the context of the middle school she studied, socialization pressures were strong to “always be in love,” but an equally strong cultural mandate was that it is only appropriate to love/ date one person at a time. Given the relatively high rates of concurrency (overlapping relationships) documented in other studies of adolescents (Williams and Hickle 2010; Feldman and Cauffman 1999) it seems likely that this is another dimension of social climate that may vary significantly across school contexts.

### ***The Current Study***

This paper addresses a significant gap in the literature by including attention to multiple levels of social network influence. We assess the role of parental and friend victimization, but also explore the role of the broader school context on patterns of IPV perpetration. We assess whether three aspects of school normative climate (prevalence of cheating behaviors, violence within the friendship context and reports of

IPV) make a difference for understanding IPV, net of experiences within the more immediate circle of family and close friends. This analysis relies on data derived from a study with a strong relationship emphasis (Toledo Adolescent Relationships Study) and includes respondents who attended a range of different schools.

The first step in the analysis is to determine whether parents' use of physical violence and reports of friends' use of violence toward the respondent are significantly related to the odds of using violence within the context of one's current or most recent dating relationship, net of basic sociodemographic and family correlates. An asset of this study is that we construct school-level indices of IPV experience by aggregating responses of all TARS respondents attending the same school to reflect the percentage of others at the same school who report "hitting friends" and "hitting romantic partners." This will allow us to determine whether school-level variations in IPV perpetration are significantly related to respondent reports, once more proximal influences are taken into account. We develop a third indicator focusing on dating norms, specifically the prevalence of cheating behaviors across the various school contexts. We examine whether school-level cheating is significantly related to reports of intimate partner violence. This model controls for the individual's own cheating, in order to determine whether the broader school climate appears to have an effect, beyond an association with one's own cheating behavior. Thus, we assess how specific domains of the school climate (general violence, the prevalence of IPV and dating norms), are tied to IPV.

## **DATA AND METHODS**

The TARS study is based on a stratified random sample of 1,321 adolescents and their parents/guardians. The sampling frame of the TARS study encompassed 62 schools across seven school districts, and the initial sample was drawn from 7th, 9th and 11th grade enrollments records, although school attendance was not a requirement for inclusion in the study. Devised by the National Opinion Research Center, the stratified random sample includes over-samples of black and Hispanic adolescents. The TARS structured data were collected in the years 2001, 2002, 2004 and 2006, and the quantitative

analyses presented here rely on structured interviews conducted at wave 1, when respondents are, on average, 15 years of age. Interviews generally took place in respondents' homes, and after preliminary data were entered, the respondent completed the bulk of the interview using laptops to enter the information directly (CASI). The analytic sample includes all those individuals who participated in wave 1 ( $N = 1,316$ ), but individuals who did not report on violence within their dating relationships were excluded ( $n = 345$ ), as were those individuals attending a school where the sample size was too small to construct normative climate measures ( $n = 16$ ). The final analytic sample thus consists of 955 respondents (467 males and 488 females).

## MEASURES

For many of the domains assessed, information is available about perpetration of violence as well as victimization. Following the logic of social learning theory, we focus on parents and friends hitting the respondent (victimization), as experiences external to the individual that may nevertheless prove consequential for later actions (perpetration) within the dating realm. If we had used the corollary measure to assess, for example, the respondent's own report of hitting friends, this could be a reflection of an individual proclivity/trait that resulted in enacting both forms of violence. Our school-level measure aggregates responses to the perpetration questions focused on hitting friends and hitting romantic partners.

With a similar logic in mind, a measure of cheating is assessed. Due to the young age of the sample, at the individual level we assess a range of behaviors that could be sources of jealousy and discord. Items index respondents' reports of whether they have flirted with, "seen," or gotten physically involved with another person other than their dating partner. To assess cheating at the school-level, responses about these behaviors from all TARS respondents attending the same school (deleting the respondent's own reports), are aggregated, in order to construct a school-level index that reflects the percentage of others at the same school who report cheating behaviors.

## Dependent Variable

Intimate partner violence (IPV) perpetration is based on responses to four items from the revised Conflict Tactics Scale (CTS) (Straus and Gelles 1990), including whether the respondent had “thrown something at,” “pushed, shoved or grabbed,” “slapped in the face or head with an open hand,” and “hit,” in reference to experiences with the current or most recent partner. Due to the skewed distribution of responses to these items, IPV perpetration is dichotomized, where individuals reporting perpetrating any of these acts are coded as 1. A victimization scale composed of the same measures is used in supplemental analyses in which victimization is the dependent variable.

## Key Independent Variables

### *Individual-level Social Learning Constructs*

Parental violence is based on an item that asked respondents how often their parents push, slap or hit them during disagreements. Responses range from “never” to “two or more times per week.” Again, due to the skewed nature of the distribution, this measure is dichotomized, where only those respondents reporting “never” are coded as 0, and 1 otherwise.

Friends’ violence is based on responses to four items which elicit information about how often a friend threw something at; pushed, shoved or grabbed; slapped the respondent in the face or head with an open hand; and hit them. To align with measures of IPV perpetration and parental violence, as well as due to the skewed distribution of the measure, friends’ violence is also dichotomized, where only those respondents reporting they have never been victimized by their friends are coded as 0 and 1 otherwise.

### *Relationship Dynamics*

Given that cheating is a known correlate of IPV, a measure of respondent’s cheating behaviors is assessed. This measure is based on responses to three items: whether the respondent has ever flirted with, “seen,” or been physically involved with someone other than their dating partner. Respondents reporting positively about at least one of these measures are coded as 1, whereas only those respondents reporting they have never engaged in any of the three behaviors are coded as 0.

### *Contextual Factors*

School-level friend violence is based on responses to four items, asking respondents how often they have thrown something at one of their friends; pushed, shoved or grabbed them; slapped a friend in the face or head with an open hand; or hit a friend. Each of these individual-level responses is dichotomized, where only those respondents reporting they have never been violent toward their friends are coded as 0, and 1 otherwise. Then, to assess friend violence at the school-level, responses of all TARS respondents attending the same school (deleting the respondent's own reports), are aggregated, in order to construct a school-level index that reflects the percentage of others at the same school who report violence toward friends. Based on these percentages, schools are then categorized into low (contrast category), high and midrange categories. Thus, the bottom third of schools with the lowest percentage of friend violence are categorized as low, the top third of schools with the highest percentage of friend violence are categorized as high, and the remaining schools are categorized as midrange. This measure allows for the analysis of the respondents' peer climate and whether general violence is more or less commonplace within the specific school they attend.

School-level partner violence is based on responses to the four CTS perpetration items used in the measurement of the dependent variable. Thus, these items include how often the respondent has thrown something at; pushed, shoved or grabbed; slapped in the face or head with an open hand; or hit their partner. Similarly, due to the skewed distribution of the responses, only those individuals reporting "never" to all four items are coded as 0, while individuals positively reporting on any of the four items are coded as 1. Then, to estimate the normative climate of the school, the individual responses are aggregated within each school, minus the respondent's own report. As with school-level friend violence, this measure reflects the percentage of respondents within each school who report being violent with their partners. These percentages are then used to classify schools into low, serving as the contrast category, high and midrange levels of partner violence, as was done with the school-level friend violence measure. The distinction between this measure and the school-level friend violence measure allows for the examination of whether and to what degree exposure to IPV-specific violence is significantly related to IPV perpetration, when general school-level violence exposure has been taken into account.

Finally, school-level cheating is the aggregated response to the individual-level cheating measure. The measure included in analyses is the percentage of respondents within each school who report cheating behaviors in their current or most recent relationship. Based on these percentages, schools are then categorized into low (contrast category), high and midrange categories. This measure allows for the analysis of the respondents' peer climate with respect to dating, and whether cheating is more or less commonplace within the specific school they attend.

### *Controls*

Sociodemographic indicators (gender, age, race, family structure, and socioeconomic status) and relationship status are included in the analyses and represent traditional predictors of IPV. "Male" serves as the contrast category for gender, while age is measured in years and is based on the respondent's age at the time of the wave 1 interview. Four dummy variables represent the respondents' racial-ethnic status, which include non-Hispanic white, serving as the contrast category, non-Hispanic black, Hispanic, and "other" race-ethnicity. Family structure is measured by four dummy variables and includes two biological parents, serving as the contrast category, step-family, single-parent family, and any "other" family type. Finally, socioeconomic status is based on two separate indicators. The first measure is based on the highest level of education reported in the parent questionnaire, represented by three dummy variables: less than a high school degree, serving as the contrast category, high school graduate, and college graduate. The second measure is the percentage of people living below the poverty level in the respondent's block level group, the block level being a smaller section of the census tract and containing approximately 1,100 people.

In addition to sociodemographic indicators, a dummy variable assessing whether the respondents' reports are based on a current or a most recent relationship is included in the analyses. Those individuals reporting on IPV in their most recent, but not current, relationship serve as the contrast category.

## ANALYTIC STRATEGY

Logistic regression is used to assess the impact of parental and friend violence and school context measures on the odds of perpetrating IPV. Zero-order models are estimated for the key independent variables, followed by a series of nested multivariate models. The first model regresses IPV perpetration on the basic control variables age, gender, race, family structure, socioeconomic status, and relationship status. The second and third models add the parental and friend violence measures separately to test the influence of being a victim of these distinct forms of violence on respondent reports of IPV perpetration, while the fourth model includes individual-level cheating to assess dating behaviors within the respondent's current or most recent romantic relationship. Models 5 and 6 then address possible contextual effects, as measured by aggregated school-level friend violence and school-level cheating, while model 7 includes aggregated school-level partner violence to assess contextual effects related directly to IPV. These analyses thus allow for the examination of whether school-level factors (normative dating behaviors, as well as both general and IPV-specific violence) influence IPV perpetration, in general and after taking into account more localized social experiences (i.e., parental and friend violence). We also estimated models including interactions of gender and each of the focal social network variables (parental victimization, victimization by friends, school-level IPV, school-level cheating), in order to determine whether these had a similar or distinctly gendered effect on the respondent's report of IPV perpetration.

## RESULTS

Table 1 presents descriptive statistics for the sociodemographic, family, friend and school-level factors based on whether respondents do/do not report IPV perpetration within the context of their current/most recent romantic relationship. Consistent with prior work, among the full sample, we find that 16.33% of respondents reported IPV perpetration during adolescence, while 23.46% and 45.34% reported being hit by parents and friends, respectively. In terms of the school-level indicators we find the average score of friend violence is 54.55% from a range of 25 to 100%, while the average score of

school-level cheating is 76.13% with a range of 0 to 100%. Finally, the average score for school-level IPV is quite similar to that of the individual-level respondent score at 16.34% from a range of 0 to 40%.

Table 2 presents the results of regression models predicting IPV perpetration. The zero-order model in Table 2 indicates that, consistent with prior research, being hit by one's parents is significantly related to IPV perpetration. In addition, victimization by friends and individual-level cheating are positive and significant correlates. At the zero order level, attending a school with a mid-range level of violence toward friends is significantly related to IPV perpetration (relative to attending a school with low prevalence of friend violence reports), but the contrast of high and low friend violence is not significant. In contrast, attending a school with mid- and high-level, in comparison to low-level reports of partner violence is positively and significantly associated with an increased likelihood of reporting IPV perpetration. Finally, attending a school with a high-level of cheating behaviors, as compared to a low-level, is significantly related to IPV perpetration, while midrange cheating relative to low is not a significant correlate.

Turning next to the nested models in Table 2, model 1 regresses IPV perpetration on all of the control variables. Results indicate that respondents are about 14% more likely to be perpetrators of IPV for each year increase in age, while there is no statistically significant difference between male and female respondents in the reports of IPV perpetration. Turning to race-ethnicity, black respondents' odds of perpetrating IPV are 1.720 times higher than that of whites, while there are no statistically significant differences between Hispanic and "Other" respondents in comparison to white individuals. Significant differences are also found with respect to family structure, where both single-parent and "other" family types are significantly more likely to report IPV perpetration than are respondents from two biological parent families, at 2.123 and 2.436 times, respectively. There is no significant difference between those individuals from step-parent families and those with a two biological parent family, nor is there a significant difference between those respondents reporting on a current compared to a most recent relationship, in IPV perpetration reports.

Turning to socioeconomic status as measured by parental education, respondents whose parent(s) graduated from college, compared to those with less than a high school degree, are approximately 57% less likely to engage in IPV perpetration. While only marginally significant, the same pattern can be seen among respondents whose parent(s) have a high school degree, where they are approximately 36% less likely to report IPV perpetration than those respondents whose parent(s) did not graduate from high school. While at the zero-order, there is a significant relationship between the percent of persons living in poverty in the respondents' block level group and IPV perpetration, once other sociodemographic indicators are accounted for, this correlate is no longer significant.

Models 2 and 3 add parental and friend violence measures separately to examine effects of experiencing victimization in these two domains on the likelihood of becoming a perpetrator of violence in one's intimate relationships. As suggested by prior research and social learning theories, both parental and friend victimization significantly increase the likelihood of reporting IPV perpetration. Specifically, those individuals reporting that they have been hit by their parents are about 86% more likely to perpetrate violence against their current/most recent partner than are individuals who have never been victimized by their parents. Similarly, respondents who have been hit by friends are about 169% more likely to engage in IPV perpetration than are adolescents whose friendships are free of such violence. Adding peer victimization in model 3 also reduces the effect of being hit by parents by about 17%. These findings are consistent with research which has previously highlighted that during adolescence, peers often serve as important agents of socialization. Furthermore, the addition of these two victimization variables does not reduce any of the significant effects between the control variables and IPV perpetration in model 1.

Model 4 then assesses the possible effect of relationship-specific cheating behaviors on the likelihood of engaging in IPV perpetration. Results indicate that respondents are approximately 137% more likely to report perpetrating violence against their partner when in a relationship characterized by cheating behaviors, as compared to individuals where cheating behaviors are not an issue within the intimate relationship.

Turning next to possible school-level contextual effects, Models 5 and 6 examine school-level measures of violence toward friends and cheating behaviors. Results indicate that while school-level violence toward friends is not a significant predictor of being violent toward one's partner, the inclusion of this variable in the model does reduce the effect of parental violence to only marginal significance. Conversely, school-level cheating is a significant predictor of respondents engaging in IPV perpetration. Specifically, attending a school characterized by a high-level of cheating behaviors, relative to those attending schools with low-levels of cheating, increases the likelihood of individuals reporting IPV perpetration by 119%. A final model introduces the school-level partner violence measure. Results shown in Model 7 indicate that attending a school with a high level of partner violence increases the likelihood of respondents reporting IPV by 324%, compared to those individuals attending schools with low levels of partner violence.

When all of the other covariates are included in the models, the contrast of high and low levels of partner violence remains significant, although the contrast between mid and low-level violence is no longer significant. We note also that including school contextual measures reduces the previously observed racial and age differences to non-significance, suggesting an impact of school context on the patterning of these IPV reports. Similarly, once IPV-specific contextual effects are taken into account, the previously observed effect of school-level cheating behaviors is no longer significant. This suggests that IPV is related to this aspect of school climate, which appears to contribute indirectly to variations in IPV observed across schools included in the TARS study.

In supplemental analyses (not shown) we also estimated a series of interactions between gender and the focal variables (friends' hitting, school-level cheating and violence), and none of these interactions were significant. This suggests a similar effect of the social context on variations in IPV reports across gender. We also reestimated these models relying on victimization as the dependent variable, and results do not differ. This suggests that such social influences are sufficiently broad-based that other explanatory factors are needed to understand the nuances of some aspects of couple-level dynamics (e.g., whether violence is reciprocal, what factors are associated with violence escalation within a given relationship).

## CONCLUSION

The results of our analyses show that extrafamilial influences matter for understanding variations in the experience of teen dating violence. Consistent with prior research, parental coercion is a significant risk factor, but net of family exposure and other sociodemographic characteristics, friends' use of violence within the context of the friendship relationship is associated with increased odds of the respondent reporting IPV perpetration. Results also highlight the role of the broader peer network as an additional layer of potential social influence. School level violence (an aggregated measure of reports about hitting friends) was not strongly related to variations in IPV in the multivariate models, but the more specific measure-- attending a school characterized by mid-level and high-level IPV-- was significantly related to a respondent's own odds of reporting IPV perpetration. Finally, the results suggest the utility of broadening the lens to include other aspects of a school's normative climate, as attending a school characterized by high levels of cheating was also a significant correlate. These results were significant even after taking into account variations in respondents' own reports about cheating within their relationships, but in the final model that included school-level IPV, this relationship was attenuated.

The results suggest that the adolescent's developing views about romantic relationships may be shaped in part by the broader peer context, and not just within the family or in communications with close friends. As respondents reported about their own behavior as well as about the behavior of their close friends, some level of response bias cannot be ruled out. Issues of selection are also important to consider (i.e., the notion that similar individuals tend to choose one another as friends is frequently mentioned as a contrast and critique of the idea of an active social influence process--see e.g., Hirschi 1969). Yet issues of selection, reciprocal influence and response bias cannot completely account for the significant associations with school-level reports of IPV, as these were constructed from other students attending the same school.

Limitations of the current study include the regional nature of the sample and the lack of a specific measure of IPV perpetration of the respondent's more immediate circle of friends. Another limitation is that although the sample included a relatively large number of schools (32 in the analytic sample), thus

allowing us to make school-context comparisons, some schools were omitted due to an insufficient number of respondents participating in the study from those schools. Further, our measure of school context does not include responses from all students in a given school, but is comprised of aggregated responses of TARS respondents within that school. Although it was not feasible to sample all students across 32 schools, future research relying on school-based samples could include greater attention to intimate partner violence, rather than focusing only on more general problems such as school safety and general violence. In addition, a considerable amount of prior research on the adolescent period has studied various aspects of school climate, including descriptions of different clique types within schools, characteristics of the popular crowd, and the role of sports and extra-curricular activities (Sussman et al. 2007; Popp and Peguero 2011; Wang and Dishion 2012). While these have provided useful portraits of variations in school contexts, additional research on the normative climate with respect to a range of different attitudes/behaviors within the romantic realm could also be quite useful, as these variations have implications for the developing adolescent's emotional and physical well-being. These research traditions could be further integrated by conducting research on the romantic behaviors of more visible, popular youth who often 'set the tone' or have a larger-than-average influence on the normative climate within a given school. Certainly other researchers have studied various dating dynamics across levels of popularity (e.g., Waller 1938), but additional research on problem dynamics such as IPV are needed to supplement the more traditional focus on styles of dating and issues of sexuality.

The current results and future studies in this tradition could be incorporated into prevention efforts designed to deter or interrupt dating violence. The content of curricula needs to include attention to the idea that IPV does connect to issues of power within the relationship and other dyadic processes (Weisz and Black 2009; Whitaker and Lutzker 2009), but the specific content of disagreements and forms of conflict resolution used are also likely to be affected by exposure to attitudes and behaviors 'beyond the dyad' itself. Students can be informed and play an active role not only as they learn positive ways of handling disagreements and how to treat their own partners with respect, but as their actions and communications influence friends and the broader school climate. Generally consistent with this idea, a

recent analysis of factors associated with adolescents' decisions to stay with or leave a given partner documented that violence itself was not a strong predictor of such decisions, but family and friends' views of the partner (positive or negative) were significantly related to the stay/leave decision (author citation). This suggests that friends and classmates influence each other not only as direct models, but as sources of information and support that can make a difference in the choices adolescents make about important aspects of their romantic lives.

## References

- Allen, Christopher T., Swan, Suzanne C. and Raghavan, Chitra. (2009). Gender Symmetry, Sexism, and Intimate Partner Violence. *Journal of Interpersonal Violence*, 24(11):1816-1834.
- Bronfenbrenner, Urie. (1986). Ecology of the family as a context for human development: Research Perspectives. *Developmental Psychology*, 22(6):723-742.
- Brown, B. Bradford and Bakken, Jeremy P. (2011). Parenting and Peer Relationships: Reinvigorating Research on Family-Peer Linkages in Adolescence. *Journal of Research on Adolescence*, 21(1):53-165.
- Browning, C.R. (2002). The span of collective efficacy: extending social disorganization theory to partner violence. *Journal of Marriage and Family*, 64:833-850.
- Capaldi, Deborah M., Dishion, Thomas J., Stoolmiller, Miller and Yoerger, Karen. (2001). Aggression toward Female Partners by At-Risk Young Men: The Contribution of Male Adolescent Friendships. *Developmental Psychology*, 37(1):61-73.
- Cochran, John K., Sellers, Christine S., Wiesbrock, Valerie and Palacios, Wilson R. (2011). Repetitive Intimate Partner Victimization: An Exploratory Application of Social Learning Theory. *Deviant Behavior*, 32:790-817.
- Cohen, Lawrence E. and Felson, Marcus. (1979). Social Change and Crime Rate Trends: A Routine Activity Approach. *American Sociological Review*, 44(4): 588-608.
- Corsaro, William A. (1985). *Friendship and peer culture in the early years*. Ablex Publishing Corporation.
- Corsaro, William A. (2005). *The Sociology of Childhood*. Thousand Oaks, CA: Pine Forge Press.
- Cui, Ming, Durtschi, Jared A., Lorenz, Frederick O., Donnellan, M. Brent and Conger, Rand D. (2010). Intergenerational Transmission of Relationship Aggression: A Prospective Longitudinal Study. *Journal of Family Psychology*, 24(6):688-697.
- Eccles, Jacquelynne S., and Roeser, Robert W. (2011). "Schools as Developmental Contexts during Adolescence." *Journal of Research on Adolescence* 21(1):225-241.

- Eder, Donna and Kinney, David A. (1995). The effect of middle school extracurricular activities on adolescents' popularity and peer status. *Youth & Society*, (26)3:298-325.
- Eder, Donna, Evans, Catherine Colleen and Parker, Stephen. (1995). *School Talk: Gender and Adolescent Culture*. Rutgers University Press.
- Feldman, S. Shirley and Cauffman, Elizabeth. (1999). Your Cheatin' Heart: Attitudes, Behaviors, and Correlates of Sexual Betrayal in Late Adolescents. *Journal of Research on Adolescence*, 9(3):227-252.
- Felson, Richard B., Liska, Allen E., South, Scott J. and McNulty, Thomas L. (1994). The Subculture of Violence and Delinquency: Individual vs. School Context Effects. *Social Forces*, 73(1):155-173.
- Fine, Gary Alan and Kleinman, Sherryl. (1983). Network and Meaning: An Interactionist Approach to Structure. *Symbolic Interaction*, 6(1):97-110.
- Fleming, Charles B., Catalano, Richard F., Mazza, James J., Brown, Eric C., Haggerty, Kevin P. and Harachi, Tracy W. (2008). After-School Activities, Misbehavior in School, and Delinquency From the End of Elementary School through the Beginning of High School: A Test of Social Development Model Hypotheses. *Journal of Early Adolescence*, 28(2):277-303.
- Foshee, Vangie A., Reyes, Heath Luz McNaughton, Ennett, Susan T., Suchindran, Chirayath, Mathias, Jasmine P., Karriker-Jaffe, Katherine J., Bauman, Karl E. and Benefield, Thad S. (2011). Risk and Protective Factors Distinguishing Profiles of Adolescent Peer and Dating Violence Perpetration. *Journal of Adolescent Health*, 48(4):344-350.
- Foshee, Vangie A., Benefield, Thad S., Reyes, Heath Luz McNaughton, Ennett, Susan T., Faris, Robert, Chang, Ling-Yin, Hussong, Andrea and Suchindran, Chirayath M. (2013). The Peer Context and the Development of the Perpetration of Adolescent Dating Violence. *Journal of Youth Adolescence*, 42:471-486.
- Fordham, S. and Ogbu, J. (1986). Black students' school success: coping with the burden of 'acting white'. *Urban Review*, 18(3):176-206.

- Giordano, Peggy C. (1995). The Wider Circle of Friends in Adolescence. *American Journal of Sociology*, 101(3):661-697.
- Giordano, Peggy C., Soto, Danielle A., Manning, Wendy D. and Longmore, Monica A. (2010). The characteristics of romantic relationships associated with teen dating violence. *Social Science Research*, 39(6):863-874.
- Harris, Anthony R. (1977). Sex and Theories of Deviance: Toward a Functional Theory of Deviant Type-Scripts. *American Sociological Review*, 42(1):3-16.
- Hartup, W. W. (1978). Peer relations and the growth of social competence. In Kent, M. W., and Rolf, J.E. (eds.), *The Primary Prevention of Psychopathology* (Vol. 3). University Press of New England, Hanover.
- Homans, George C. (1950). *The Human Group*. New York: Harcourt, Brace & World.
- Johnson, Sara B., Frattaroli, Shannon, Campbell, Jacquelyn, Wright, Joseph, Pearson-Fields, Amari S. and Cheng, Tina L. (2005). "I Know What Love Means." Gender-Based Violence in the Lives of Urban Adolescents. *Journal of Women's Health*, 14(2):172-179.
- Kasen, Stephanie, Cohen, Patricia, Chen, Henian, Johnson, Jeffrey G. and Crawford, Thomas N. (2009). School climate and continuity of adolescent personality disorder symptoms. *Journal of Child Psychology & Psychiatry*, 50(12):1504-1512.
- Klein, Jennifer, Cornell, Dewey and Konold, Timothy. (2012). Relationships Between Bullying, School Climate, and Student Risk Behaviors. *School Psychology Quarterly*, 27(3):154-169.
- Kreager, Derek A. and Staff, Jeremy. (2009). The Sexual Double Standard and Adolescent Peer Acceptance. *Social Psychology Quarterly*, 72(2):143-164.
- Linder, Jennifer Ruh and Collins, W. Andrew. (2005). Parent and Peer Predictors of Physical Aggression and Conflict Management in Romantic Relationships in Early Adulthood. *Journal of Family Psychology*, 19(2):252-262.
- Miller, Jody and White, Norman A. (2003). Gender and Adolescent Relationship Violence: A Contextual Examination. *Criminology*, 41(4):1207-1248.

- Milletich, Robert J., Kelley, Michelle L., Doane, Ashley N. and Pearson, Matthew R. (2010). Exposure to Interparental Violence and Childhood Physical and Emotional Abuse as Related to Physical Aggression in Undergraduate Dating Relationships. *Journal of Family Violence* 25:627-637.
- O'Keefe, Maura. (1998). Factors Mediating the Link Between Witnessing Interparental and Dating Violence. *Journal of Family Violence*, 13(1):39-57.
- Morenoff, Jeffrey D., Sampson, Robert J. and Raudenbush, Stephen W. (2001). Neighborhood Inequality, Collective Efficacy, and the Spatial Dynamics of Urban Violence. *Criminology* 39(3):517-558.
- Parrot, Dominic J. and Zeichner, Amos. (2003). Effects of Trait Anger and Negative Attitudes toward Women on Physical Assault in Dating Relationships. *Journal of Family Violence*, 18(5):301-307.
- Popp, Ann Marie and Peguero, Anthony A. (2011). Routine Activities and Victimization at School: The Significance of Gender. *Journal of Interpersonal Violence*, 26(12):2413-2436.
- Reed, Elizabeth, Silverman, Jay G., Welles, Seth L., Santana, Maria Christina, Missmer, Stacey A., and Raj, Anita. (2009). Associations Between Perceptions and Involvement in Neighborhood Violence and Intimate Partner Violence Perpetration Among Urban, African American Men. *Journal of Community Health*, 34:328-335.
- Reed, Elizabeth, Silverman, Jay G., Raj, Anita, Decker, Michele R. and Miller Elizabeth. (2011). Male Perpetration of Teen Dating Violence: Associations with Neighborhood Violence Involvement, Gender Attitudes, and Perceived Peer and Neighborhood Norms. *Journal of Urban Health*, 88(2):226-239.
- Renner, Lynette M. and Whitney, Stephen D. (2012). Risk factors for unidirectional and Bidirectional intimate partner violence among young adults. *Child Abuse & Neglect*, 36:40-52.
- Ridgeway, Cecilia L. (2006). Linking Social Structure and Interpersonal Behavior: A Theoretical Perspective on Cultural Schemas and Social Relations. *Social Psychology Quarterly*, 69(1)p5-16.
- Sampson, Robert J. and Groves, W. Byron. (1989). Community Structure and Crime: Testing Social-Disorganization Theory. *American Journal of Sociology*, 94(4):774-802.

- Sampson, Robert J., Raudenbush Stephen W. and Earls, Felton. (1997). Neighborhoods and Violent Crime: A Multilevel Study of Collective Efficacy. *Science*, 277(5328):918-924.
- Schnurr, Melissa P. and Lohman, Brenda J. (2013). The Impact of Collective Efficacy on Risks for Adolescents' Perpetration of Dating Violence. *Journal of Youth Adolescence*, 42:518-535.
- Simmel, Georg. (1950). *The Sociology of Georg Simmel*. New York: The Free Press.
- Stith, Sandra M., Rosen, Karen H., Middleton, Kimberly A., Busch, Amy L., Lundenberg, Kirsten and Carlton, Russel P. (2000). The Intergenerational Transmission of Spouse Abuse: A Meta-Analysis. *Journal of Marriage & Family*, 62(3):640-654.
- Stocker, Clare M. and Richmond, Melissa K. (2007). Longitudinal Associations between Hostility in Adolescents' Family Relationships and Friendships and Hostility in Their Romantic Relationships. *Journal of Family Psychology*, 21(3):490-497.
- Straus, Murray A. and Gelles, Richard J. (1990). *Physical Violence in American Families: Risk Factors and Adaptations to Violence in 8,145 Families*. New Brunswick, NJ: Transaction Publishers.
- Straus, Murray A. and Savage, Sarah A. (2005). Neglectful Behavior by Parents in the Life History of University Students in 17 Countries and Its Relation to Violence Against Dating Partners. *Child Maltreatment*, 10(2): 124-135.
- Sullivan, H.S. (1953). *The Interpersonal Theory of Psychiatry*. Norton, New York.
- Sussman, Steve, Pokhrel, Pallav, Ashmore, Richard D. and Brown, Bradford B. (2007). Adolescent peer group identification and characteristics: A review of the literature. *Addictive Behaviors*, 32(8)1602-1627.
- Sutherland, Edwin Hardin. (1939). *Principles of criminology*. J.B. Lippincott Company.
- Thornberry, Terence P., Knight, Kelly E. and Lovegrove, Peter J. (2012). Does Maltreatment Beget Maltreatment? A Systematic Review of the Intergenerational Literature. *Trauma, Violence & Abuse*, 13(3):135-152.

- Vagi, Kevin J., Rothman, Emily F., Latzman, Natasha E., Tharp, Andra Teten, Hall, Diane M. and Breiding, Matthew J. (2013). Beyond Correlates: A Review of Risk and Protective Factors for Adolescent Dating Violence Perpetration. *Journal of Youth Adolescence*, 42:633-649.
- Volz, Angela R. and Kerig, Patricia K. (2010). Relational Dynamics Associated with Adolescent Dating Violence: The Roles of Rejection Sensitivity and Relational Insecurity. *Journal of Aggression, Maltreatment & Trauma*, 19(6):587-602.
- Wang, Ming-Te and Dishion, Thomas J. (2012). The Trajectories of Adolescents' Perceptions of School Climate, Deviant Peer Affiliation, and Behavioral Problems. *Journal of Research on Adolescence*, 22(1):40-53.
- Weisz, Arlene N. and Black, Beverly M. (2009). *Programs to Reduce Teen Dating Violence & Sexual Assault: Perspectives on What Works*. New York: Columbia University Press.
- Whitaker, Daniel J. and Lutzker, John R. (2009). *Preventing Partner Violence: Research and Evidence-Based Intervention Strategies*. Washington, DC: American Psychological Association.
- White, Helene Raskin and Widom, Cathy Spatz . (2003). Intimate Partner Violence Among Abused and Neglected Children in Young Adulthood: The Mediating Effects of Early Aggression, Antisocial Personality, Hostility and Alcohol Problems. *Aggressive Behavior*, 29:332-345.
- Williams, Lela Rankin and Hickie, Kristine E. (2010). He cheated on me, I cheated on him back: Mexican American and White adolescents' perceptions of cheating in romantic relationships. *Journal of Adolescence*, 34(5):1005-1016.
- Williams, Tricia S., Craig, Wendy, Connolly, Jennifer, Pepler, Debra and Laporte, Lisa. (2008). Risk Models of Dating Aggression Across Different Adolescent Relationships: A Developmental Psychopathology Approach. *Journal of Consulting and Clinical Psychology*, 76(4)-622-632.

Table 1: *Individual and School-Level Characteristics by self-reported IPV Perpetration*

	IPV Perpetration – No	IPV Perpetration – Yes	Total
<i>Individual-Level Social Learning Constructs</i>			
Parental Violence	21.03	35.90	23.46
No Parental Violence	78.97	64.10	76.54
Friends' Violence	42.30	60.90	45.34
No Friends' Violence	57.70	39.10	54.66
<i>Relationship Dynamics</i>			
Cheating	74.09	86.54	76.13
No Cheating	25.91	13.46	23.87
<i>School-Level Contextual Factors</i>			
<i>Friends' Violence</i>			
Low	30.16	23.08	29.01
Mid	39.42	53.85	41.78
High	30.41	23.08	29.21
<i>Cheating</i>			
Low	19.40	12.82	18.32
Mid	33.29	23.72	31.73
High	47.31	63.46	49.95
<i>Partner Violence</i>			
Low	19.52	3.85	16.96
Mid	33.79	25.64	32.46
High	46.68	70.51	50.58
<i>Controls</i>			
<i>Relationship Status</i>			
Currently Dating	56.57	66.67	58.22
<i>Respondent Characteristics</i>			
Age (M)	15.37	15.71	15.43
<i>Gender</i>			
Male	49.56	45.51	48.90
Female	50.44	54.49	51.10
<i>Race-ethnicity</i>			
White	66.71	47.44	63.56
Black	20.65	38.46	23.56
Hispanic	11.14	12.18	11.31
Other Race	1.63	1.92	1.57
<i>Family Structure</i>			
Biological Parents	51.94	32.05	48.69
Single Parent	20.90	35.26	23.25
Stepparent	16.15	10.90	15.29
Other Family	11.01	21.79	12.77
<i>Parent Education</i>			
Less than high school	11.51	21.79	13.19
High school graduate	64.96	65.38	65.03
College Graduate	23.53	12.82	21.78
<i>Poverty Indicator (M)</i>			
Percent in poverty	14.13	18.95	14.91
<b>N</b>	799	156	

Percentages are shown (exception: age, poverty indicator, and school-level contextual factors reported in means).  
N = 955

Table 2: Logistic Regression Predicting IPV Perpetration with Individual and School-Climate Factors

Regressor	Zero Order	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
<i>Individual-Level Social Learning Constructs</i>								
Parental Violence	2.103 <sup>***</sup>		1.861 <sup>**</sup>	1.548 <sup>*</sup>	1.551 <sup>*</sup>	1.495 <sup>^</sup>	1.465 <sup>^</sup>	1.435 <sup>^</sup>
Friends' Violence	2.124 <sup>***</sup>			2.688 <sup>***</sup>	2.637 <sup>***</sup>	2.650 <sup>***</sup>	2.678 <sup>***</sup>	2.728 <sup>***</sup>
<i>Relationship Dynamics</i>								
Cheating	2.248 <sup>***</sup>				2.374 <sup>***</sup>	2.351 <sup>***</sup>	2.198 <sup>**</sup>	2.261 <sup>**</sup>
<i>School-Level Contextual Factors (low range)</i>								
Friend Violence (Mid)	1.785 <sup>**</sup>					1.462	1.126	1.076
Friend Violence (High)	0.992					1.120	1.037	0.877
Cheating (Mid)	1.078						1.333	1.032
Cheating (High)	2.030 <sup>**</sup>						2.190 <sup>*</sup>	1.037
Partner Violence (Mid)	3.852 <sup>**</sup>							1.988
Partner Violence (High)	7.668 <sup>***</sup>							4.240 <sup>**</sup>
<i>Relationship Status (recent relationship)</i>								
Currently Dating	1.535 <sup>*</sup>	1.277	1.322	1.329	1.237	1.228	1.252	1.277
<i>Respondent Characteristics</i>								
Age	1.128 <sup>*</sup>	1.138 <sup>*</sup>	1.140 <sup>*</sup>	1.196 <sup>**</sup>	1.183 <sup>**</sup>	1.168 <sup>*</sup>	1.062	1.030
Female (male)	1.176	1.069	1.034	1.319	1.328	1.307	1.279	1.259
<i>Race (white)</i>								
Black	2.402 <sup>***</sup>	1.720 <sup>*</sup>	1.698 <sup>*</sup>	1.741 <sup>*</sup>	1.727 <sup>*</sup>	1.664 <sup>^</sup>	1.713 <sup>*</sup>	1.539
Hispanic	1.106	1.073	1.023	1.072	1.029	0.985	1.007	0.903
Other Race	1.286	1.839	1.718	1.663	1.753	1.764	1.703	1.470
<i>Family Structure (biological parents)</i>								
Single Parent	2.061 <sup>***</sup>	2.123 <sup>***</sup>	2.080 <sup>**</sup>	2.284 <sup>***</sup>	2.451 <sup>***</sup>	2.523 <sup>***</sup>	2.526 <sup>***</sup>	2.469 <sup>***</sup>
Stepparent	0.635	0.931	0.938	0.940	0.944	0.946	0.927	0.933
Other Family	2.252 <sup>***</sup>	2.436 <sup>***</sup>	2.433 <sup>***</sup>	2.614 <sup>***</sup>	2.646 <sup>***</sup>	2.747 <sup>***</sup>	2.745 <sup>***</sup>	2.588 <sup>***</sup>
<i>Parent Education (less than high school education)</i>								
High School Graduate	0.532 <sup>**</sup>	0.640 <sup>^</sup>	0.650 <sup>^</sup>	0.614 <sup>^</sup>	0.574 <sup>*</sup>	0.588 <sup>*</sup>	0.569 <sup>*</sup>	0.576 <sup>*</sup>
College Graduate	0.288 <sup>***</sup>	0.428 <sup>*</sup>	0.457 <sup>*</sup>	0.429 <sup>*</sup>	0.400 <sup>**</sup>	0.422 <sup>*</sup>	0.410 <sup>*</sup>	0.479 <sup>*</sup>
<i>Poverty Indicator</i>								
Percent in Poverty	1.021 <sup>***</sup>	1.000	0.999	0.998	0.999	0.998	1.000	0.997
Intercept		0.020 <sup>***</sup>	0.016 <sup>***</sup>	0.004 <sup>***</sup>	0.003 <sup>***</sup>	0.003 <sup>***</sup>	0.009 <sup>***</sup>	0.009 <sup>***</sup>
$\chi^2$		60.00	69.58	94.55	106.61	109.56	115.00	126.20
Pseudo R <sup>2</sup>		0.0706	0.0818	0.1112	0.1254	0.1288	0.1352	0.1484

N = 955. Results are reported in odds ratios. Reference groups italicized in parentheses.

. \*p < 0.05 \*\* p < 0.01 \*\*\* p < 0.001