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TEEN DATING VIOLENCE: THE INFLUENCE OF FRIENDSHIPS AND SCHOOL CONTEXT

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Abstract

Prior research has examined parental and peer influences on teen dating violence (TDV), but fewer studies have explored the role of broader social contexts. Using data from the Toledo Adolescent Relationships Study (TARS), the present research examines the effect of variations in school context on teen dating violence perpetration, while taking into account parental, peer, and demographic factors. Drawing on interview data from 955 adolescents across 32 different schools, results indicate that net of parents’ and friends’ use of violence, the normative climate of schools, specifically school-level teen dating violence, is a significant predictor of respondents’ own violence perpetration. School-level dating norms (non-exclusivity in relationships) also contribute indirectly to the odds of experiencing TDV. However, a more general measure of school-level violence toward friends is not strongly related to variations in TDV, suggesting the need to focus on domain-specific influences. Implications for theories emphasizing social learning processes and for TDV prevention efforts are discussed.

Keywords
dating violence; schools; peers; context; social learning theory

Social learning theory (Bandura 1977, 1986; Sutherland 1939) has provided a foundation for much research on intimate partner violence (IPV). Numerous studies demonstrate linkages between early exposure to violence within the family and the odds of experiencing violence within later adult romantic relationships (e.g., Cui et al. 2010; Renner and Whitney 2012; Smith et al. 2011; Swinford et al. 2000; Wareham, Boots, and Chavez 2009; Whitfield et al.)

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This association is also demonstrated in studies of the phenomenon of teen dating violence (TDV) (Simon and Furman 2010; Wolfe and Wekerle 1997; Wolfe et al. 2009). Although adolescent romantic relationships generally do not involve the same constraints and levels of interdependence as adult relationships, recent research documents troubling rates of perpetration and victimization during this phase of the life course (e.g., Carver, Joyner and Udry 2003; Center for Disease Control 2011; Giordano et al. 2010; Miller and White 2003). Research also demonstrates associations between early (adolescent) exposure and risk for later IPV (e.g., Cui et al. 2013) suggesting the importance of interrupting these behavior patterns before they become firmly entrenched.

Recognizing areas of overlap in risk factors (i.e., the family is a robust predictor, whether the focus is on TDV or violence that occurs within adult relationships), research on adolescent behaviors in general and problem behaviors in particular stresses unique social network influences and dynamics during the adolescent period. Specifically, the second decade of life is characterized by increased interest in friendship and peer relationships (Brown and Bakken 2011). This suggests the utility of investigating further the potential impact of such extra-familial influences on the odds of experiencing teen dating violence. In prior examinations of peer effects, researchers have explored the role of social skills deficits (Linder and Collins 2005), antisocial friends (Capaldi 2001; Foshee et al. 2013), poor friendship quality (Foshee et al. 2013; Vagi et al. 2013), friends’ negative attitudes toward women (Capaldi et al. 2001), and beliefs about friends’ involvement in dating violence (Reed et al. 2011). One arena that has not been researched extensively in prior studies is school influence, a context where adolescents are exposed to both close friends and a broader network of similarly situated peers.

The current study contributes to research on TDV first by examining the effect of friends’ own use of violence within the context of the friendship, with the potential for carry-over effects to the realm of romantic ties. Following the basic assumptions of social learning theory, we also control for a background of parental abuse, to determine whether exposure to friends’ violence explains additional variance in reports of violence in dating relationships (see Williams et al. 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 construct 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 teen dating violence (TDV) perpetration—in general and once the respondent’s own experience of victimization by parents and close friends has been taken into account. Finally, we recognize that school climates may encompass a range of attitudes and behaviors concerning dating and sexuality, and not simply variations in the presence or absence of violence. Accordingly, we determine whether school environments characterized by relatively liberal attitudes about dating relationships (indexed by non-exclusivity in relationships) influence the odds of experiencing TDV perpetration.
**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 documents effects for both forms of intergenerational exposure (see, for example, Milletich et al. 2010). Moreover, in a recent review, Foshee, Reyes and colleagues (2011) conclude that child abuse, as the more direct form of victimization, is more consistently linked to later violence perpetration within intimate relationships. Studies using both retrospective and prospective reports (Cui et al. 2010; Renner and Whitney 2012; White and Widom 2003) find that individuals exposed to parental violence in the form of childhood maltreatment are significantly more likely to be both victims and perpetrators of violence in their future romantic relationships, and this finding is consistent among men and women.

However, some researchers suggest that it is inappropriate to conceptualize the intergenerational transmission of violence as an inevitable process (Thornberry, Knight, and Lovegrove 2012). For example, while Stith and colleagues’ (2000) meta-analysis of the relationship between growing up in a violent home and experiencing IPV perpetration or victimization in adulthood finds support for a social learning perspective, the authors note that correlations are generally weak to moderate. Similarly, other research finds that while childhood maltreatment is associated with attitudes supporting dating violence when measured at the same points in time, such attitudes are often not predictive of adolescents’ future experiences with IPV (Wolfe et al. 2004). Given that individuals’ attitudes and behaviors are not sole products of the presence or absence of childhood maltreatment experiences, it is potentially useful to extend basic tenets of social learning theory to include extrafamilial influences.

**The Role of Adolescent Friendships**

Recognizing that peer relationships are central to child and adolescent development (e.g., Hartup 1978; McLean and Jennings 2012; Newman, Lohman and Newman 2007; Sullivan 1953; Waldrip, Malcolm, and Jensen-Campbell 2008), prior research has increasingly incorporated various dimensions of peer relationships into studies of TDV. Some of this research emphasizes attachment processes, which generally stress continuity between early family dynamics and the quality of ties formed later in the life course (Bowlby 1982; Cook, Buehler and Fletcher 2012; Cui et al. 2002). This theoretical perspective leads to a social skills deficit hypothesis, including the idea that a lack of strong attachment to parents may be associated with a lack of attachment within peer and romantic contexts. Some research has suggested that these skill deficits and the inability to form close ties are implicated in the experience of intimate partner violence perpetration and victimization (Busby, Holman and Walker 2008; Dutton 1994; Dutton, Starzomski and Ryan 1996; Wekerle et al. 2009). Social learning theories adapt a more neutral stance on the intimacy of these ties, focusing greater attention on the content of attitudes and specific behavior patterns that are acquired and reinforced through recurrent interaction and communication with others (Sutherland 1939). This basic social learning perspective provides a conceptual basis for exploring ways in
which friends and peers contribute to the adolescent’s socialization, beyond the effect of early experiences within the family context.

Findings from prior research do provide support for the current examination of extra-familial influences, although most of this research has been confined to assessments of the attitudes or behavior profiles of close friends. In a recent exploration of the direct transmission of violence from peer to romantic relationship domains, longitudinal analyses indicate that adolescents with friends who perpetrate dating violence are significantly more likely to perpetrate dating violence themselves (Foshee et al. 2013). Cochran et al. (2011) also show that individuals who report IPV experience expected that significant others would not react as negatively to their victimization as those who did not report IPV. Conversely, research has shown that adolescent reports of hostile interactions and violence within their close friendships are associated with general hostility as well as both IPV perpetration and victimization within later romantic relationships (Stocker and Richmond 2007; Williams et al. 2008). Longitudinal analyses have also shown that, for males, deviant peer associations and hostile talk about women among peers during adolescence are significantly and positively associated with aggression toward a romantic partner in young adulthood (Capaldi et al. 2001). These findings thus provide empirical support for the general premise that social learning processes continue to operate as the individual’s network of affiliations develops outside the confines of the family.

**Broader Contextual Influences**

As suggested above, most of the research on peer effects has examined attitudes and behaviors of the adolescent’s immediate circle of friends. This is generally consistent with Sutherland’s idea that relationships characterized by numerous opportunities for interaction and communication are more likely to be influential relative to remote sources (mass media, for example). However, there is a long tradition of sociological theorizing and research that highlights the importance of the broader context and one’s wider network of affiliations and contacts – from “the strength of weak ties” argument (Granovetter 1973; Kreager and Haynie 2011) to classic and contemporary treatments of neighborhood effects (Sampson 2012). Thus, it is generally recognized that friendships necessarily unfold against a broader socio-economic landscape that may directly and indirectly influence a range of behavioral outcomes, including violence (Bronfenbrenner 1986; Cohen and Felson 1979; Morenoff, Sampson and Groves 1989; Sampson and Raudenbush 2001; Sampson, Raudenbush and Earls 1997). Although many studies have explored the role of neighborhood effects on crime and general violence, more recent work has begun to examine neighborhood contexts in relation to violence with intimate others among both adolescents and adults (Browning 2002; Reed et al. 2009; Shnurr and Lohman 2013). These studies of neighborhood effects suggest the general importance of the broader social context, yet scholars with an interest in youth development (e.g., Eccles and Roeser 2011; Eder, Evans and Parker 1995; Eder and Kinney 1995; Fleming et al. 2008; Kasen et al. 2009) stress the critical role of the school for understanding the character of adolescent life.

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 et al. (1994) find that an aggregated measure of school values regarding violence is a significant predictor of interpersonal violence perpetration, controlling for respondents’ own commitment to values regarding violence. More recently, Klein, Cornell, and Konold (2012) analyze 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 find that students who feel that bullying and teasing are widespread at their school are more likely to engage in risk behaviors themselves. Specific to intimate partner violence, O’Keefe’s (1998) analysis of dating violence predictors indicates that both community and school violence exposure, measured by the type and frequency of violent behaviors that respondents witnessed during the past year, are significant predictors of TDV perpetration for both males and females.

The studies described above examine how general exposure to violence may affect both generally violent and TDV-specific behavior, but most studies have not examined variations in school-level exposure to TDV itself. One exception is Straus and Savage’s (2005) International Dating Study, which relies on college students and includes aggregated IPV-specific behavioral predictors of individual IPV outcomes. In this study, school climate is measured by the percentage of students at each university who report being physically attacked or who injured a dating partner in the last year. In addition to the finding that child maltreatment (neglect) increases the likelihood of intimate partner violence, attending a university with a high level of dating violence is positively associated with IPV perpetration at the individual level. Further, the link between childhood maltreatment and engaging in violence against a partner is stronger at universities in which dating violence is more prevalent. In the current analysis, we rely on responses of all individuals in the study who attend the same school to construct aggregated measures of TDV 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 TDV and friends’ use of violence, and whether such broader contextual factors matter for understanding TDV once more proximal social influences (i.e., parental abuse and being victimized by friends’ aggression) have been taken into account.

**Expanding the Concept of School Climate**

The most straightforward approach to understanding social learning 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 nonviolent attitudes and behaviors that may also increase violence risk. Specifically, in recognizing that dating violence may stem from dynamics that are unique to intimate relationships, we extend our assessment of school climate to include variation in norms about behavior within the dating realm. Adolescents are keenly interested in the world of dating and sexuality, but do not have an extensive backlog of experience about how best to conduct their romantic lives. Thus, social learning and socialization processes are ongoing as individuals gradually develop understandings about appropriate ways to conduct this type of relationship in particular
(e.g., is it acceptable to date more than one person at a time; are these relationships likely to include much discord/drama; are there some conditions under which it might be acceptable to hit a partner?). We focus attention on the school climate regarding non-exclusivity of relationships, as prior research has documented that concerns about “infidelity” are significantly related to relationship discord and both violence perpetration and victimization (Giordano et al. 2010; Volz and Kerig 2010). Miller and White’s (2003) qualitative study is particularly important in highlighting that concerns about partner non-exclusivity are often implicated in teenage girls’ as well as boys’ use of violence within the context of romantic relationships.

While infidelity 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). Related to this social learning process, definitions of what constitutes cheating, or non-exclusivity, in romantic relationships vary. As Wilson et al. (2011) and others (e.g., Blow and Hartnett 2005; Feldman and Cauffman 1999; Shackelford and Buss 1997; Wilson et al. 2011; Yarab, Allgeier and Sensibaugh 1998) suggest, aside from the more straightforward notion of sexual contact or intercourse, cheating may include “gray” areas, such as flirting with or spending time with someone else. Thus, it is important to understand variations in the normative climates to which young people are exposed, as some contexts may be characterized by higher levels of non-exclusivity and related concerns that connect to negative emotions and conflicts within the romantic realm. In the current analysis, we explore whether the broader school climate with respect to norms about this aspect of dating behavior influences variations in TDV self-reports—in general and after taking into account other violence risk factors.

Social Learning beyond the Realm of Close Ties

As noted briefly above, most research on the mechanisms underlying social learning theories have concentrated on the centrality of close intimate ties. Sutherland and other theorists (e.g., Homans 1950; Ridgeway 2006; Sutherland 1939) posit that the intimacy of ties is generally associated with influence as: (a) the reoccurring nature of such interactions provides the most frequent opportunities for communication and modeling to occur, and (b) views/opinions of valued others are believed to “count” more. Yet as Simmel (1950) theorizes, less intimate others possess an “attitude of objectivity” that is often difficult to ignore. Within the school context in particular, scholars have noted that the wider circle of peers and cliques may be a somewhat tougher audience relative to close friends, as status and reputational processes and the dynamics of inclusion/exclusion come into play (Brown, Mory, and Kinney 1994).

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 is particularly instructive in this regard (see, for example, Corsaro 1985 and 2005). 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 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.

Given its more intimate and private nature, compared to other forms of violence, TDV may be less likely to be observed by those outside the romantic partnership. However, adolescents may observe some TDV at school or in other social settings. Yet, as with traditional forms of school violence, the communication that surrounds a given act of violence (e.g., gossip about the incident) adds to the adolescent’s understanding about its meaning. These are, thus, all mechanisms of social learning that together comprise the adolescent’s understanding of the normative climate of a given school. For example, in a series of focus groups, Johnson and colleagues (2005) found that some teens view partner violence 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. Acts that are seen as constituting various types of infidelity are subject to direct observation and gossip, as well as other forms of communication about how such violations of trust should be viewed and managed. Eder (1995) states that within the context of the middle school she studied, socialization pressures were strong to “always be in love,” but there was an equally strong cultural belief that it is appropriate to love/date only one person at a time. Yet this investigation was limited to a relatively advantaged school environment, suggesting the need to explore variations in these normative climates around such dating norms (i.e., schools will likely vary in the prevalence of relationship “concurrency,” teens’ involvement in overlapping relationships—see, for example, Ford, Sohn and Lepkowsi 2002) as well as in the level of exposure to TDV and other forms of violence. Eder’s (1995) discussion also was focused on norms associated with girls’ socialization, and prior studies have documented higher rates of non-exclusivity among males (Giordano et al. 2013). Yet as Miller and White (2003) demonstrated, young women are, nevertheless, directly affected by young men’s relationship behaviors, suggesting the potential for discord that relates to these areas of mismatch in peer socialization. This investigation of extra-familial influences thus includes attention to school-level a) violence, b) reports of non-exclusivity, and c) TDV, as well as traditional peer and family indicators. Subsequently, we explore whether these factors differentially influence male and female self-reports of TDV perpetration.

THE CURRENT STUDY

This paper addresses a significant gap in the literature by extending the social learning perspective to include attention to multiple levels of social network influence. We assess the role of parental and friends’ violent actions, and we also explore the role of the broader school context in understanding patterns of TDV. We assess whether three aspects of school normative climate (prevalence of non-exclusivity, violence within the friendship context, and reports of TDV) make a difference for understanding TDV, 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, the Toledo Adolescent Relationships Study (TARS) and includes respondents who attend 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 the individual’s current or most recent dating relationship, net of basic socio-demographic and family correlates. An asset of this study is that we construct school-level indices of TDV 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 TDV perpetration are 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 non-exclusivity across the various school contexts. Due to the young age of those in the sample and in line with more inclusive concepts of what constitutes cheating or non-exclusivity (Feldman and Cauffman 1999; Wilson et al. 2011; Yarab, Allgeier, and Sensibaugh 1998), we assess a range of behaviors that could be sources of jealousy and discord at both the individual- and school-levels, including flirting with or “seeing” others, as well as having sex with someone other than their romantic partner. We examine whether school-level reports of non-exclusivity are significantly related to reports of intimate partner violence. This model controls for the individual’s own non-exclusivity, to determine whether the broader school climate appears to have an effect beyond an association with one’s own behavior. Thus, we assess how specific domains of the school climate (general violence, the prevalence of TDV and non-exclusivity) are tied to TDV.

DATA

The TARS study is based on a stratified random sample of 1,321 adolescents and their parents/guardians from Lucas County, Ohio. The sampling frame of the TARS study encompasses 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. The names and addresses of potential participants were obtained through a complete roster of all students enrolled in Lucas County schools, available under the Ohio Open Records Act. Accordingly, all public school districts within the larger county participated in the present study. Devised by the National Opinion Research Center, the stratified random sample includes over-samples of Black and Hispanic adolescents. Based on analysis of U.S. Census data, the TARS sample is similar to the national population in estimates of race and ethnicity, family status and income, and education. For example, among those 12–18 years old in 2001, 19.5 percent in the nation, 22.4 percent in Lucas County and 21.3 percent in the TARS lived with a single mother.

The TARS structured data were collected in the years 2001, 2002, 2004, 2006, and 2011, 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 who participated in wave 1 \( (N = 1,316) \), but individuals who reported no current or recent relationship (“recent” defined as occurring within the past year), i.e., “non-daters,” were excluded from the analyses \( (n = 297) \). More specifically, in order for individuals to be considered “daters” and included in the present analyses, they must have responded affirmatively that they were currently dating someone at the time of the wave 1 interview, or had dated someone in the last year leading up to the wave 1 interview. In the current study, given the considerably young age of respondents, “dating” is defined as the respondent “liking a girl/guy who likes you back.” The present analyses also excludes those individuals attending a school where the sample size was too small to construct normative climate measures \( (n = 64) \). The final analytic sample thus consists of 955 respondents (467 male and 488 female respondents).

MEASURES

For many of the domains assessed, information is available about perpetration of violence as well as victimization. Due to our focus on social learning processes, we have a conceptual interest in what parents, friends, and broader network contacts do (perpetration that occurs by these actors/within these environments), and whether this makes a difference for understanding variability in the respondent’s reports about their own behavior (perpetration) within the romantic context. Thus, we focus on the parents’ use of coercive practices toward the child, reports about friends’ hitting the focal respondent, and school-level measures of the use of violence toward friends and romantic partners. Similarly, we assess respondent’s self-reports of non-exclusivity in their current/most recent relationship, and the aggregated measure is derived from reports of all others in the TARS survey who reported about their own “fidelity” within the context of their current/most recent relationships. Certainly victimization experiences figure into a comprehensive portrait of dynamics within each context; yet we also estimated models relying on alternative indices (i.e., the victimization corollary to each of these scales; composite scales reflecting “any violence” within a given domain), and supplemental models relying on these alternative indices produced a very similar pattern of results.

Dependent Variable

Teen dating violence (TDV) perpetration is based on responses to four items from the revised Conflict Tactics Scale (CTS) \( (\text{Straus and Gelles 1990}) \), 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, TDV 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

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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 TDV 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 that they have never been victimized by their friends are coded as 0 and 1 otherwise.

Relationship dynamics—Given that infidelity is a strong risk factor/correlate of TDV and IPV (Giordano et al. 2010; Miller and White 2003; Volz and Kerig 2010), a measure of a respondent’s own involvement with someone else while dating a current/most recent partner is assessed. Due to the young age of the sample and in line with more inclusive concepts of what constitutes infidelity (Feldman and Cauffman 1999; Wilson et al. 2011; Yarab, Allgeier, and Sensibaugh 1998), we assess a range of behaviors that could be sources of jealousy and discord at both the individual- and school-levels. Thus, “non-exclusivity” in the present study 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 that 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, 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, we categorize schools 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 that 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 TDV-specific violence is significantly related to TDV perpetration, when general school-level violence exposure has been taken into account.

Finally, school-level non-exclusivity is the aggregated response to the individual-level non-exclusivity measure. The measure included in analyses is the percentage of respondents within each school who report non-exclusivity within the context of their current or most recent relationship. Based on these percentages, we categorize schools 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 non-exclusivity 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 TDV. “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. Three dichotomous variables represent the respondents’ racial-ethnic status, which includes non-Hispanic White, serving as the contrast category; non-Hispanic Black; Hispanic; and “other” race-ethnicity. Family structure is measured by three dichotomous variables and includes two biological parents, serving as the contrast category, step-family, single-parent family, and any “other” family type. 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 two dichotomous 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. Finally, in addition to socio-demographic indicators, a dichotomous 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 TDV in their most recent, but not current, relationship serve as the contrast category.

**ANALYTIC STRATEGY**

We use logistic regression to assess the impact of parental and friend violence and school context on the odds of perpetrating TDV. We estimate zero-order models for the key independent variables, followed by a series of nested multivariate models. The first model regresses TDV 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 determine whether the parents’ and friends’ use of violence are related to the respondent’s self-report of TDV perpetration. The fourth model includes the respondent’s report of non-exclusivity to assess whether this dating-specific risk factor is associated with TDV. Models 5 and 6 then address possible
contextual effects, as measured by aggregated school-level friend violence and school-level non-exclusivity, while model 7 includes aggregated school-level partner violence to assess contextual effects related directly to TDV. These analyses thus allow for the examination of whether school-level factors (the prevalence of non-exclusivity in romantic relationships, as well as both general and TDV-specific violence) influence TDV perpetration, in general and after taking into account more localized social experiences (i.e., parental and friend violence). We also estimate models including interactions of gender and each of the focal social network variables (parental victimization, victimization by friends, school-level TDV, school-level cheating) to determine whether these had a similar or distinctly gendered effect on the respondent’s report of TDV perpetration.

RESULTS

Table 1 presents descriptive statistics for the socio-demographic, family, friend and school-level factors based on whether or not respondents report TDV perpetration within the context of their current/most recent romantic relationship. Consistent with prior work, among the full sample, we find that 16.33 percent of respondents reported TDV perpetration during adolescence, while 23.46 percent and 45.34 percent 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 percent from a range of 25 to 100 percent, the average score of school-level cheating is 76.13 percent with a range of 0 to 100 percent, and the average score for school-level IPV is quite similar to that of the individual-level respondent score at 16.34 percent from a range of 0 to 40 percent. While some of these percentages may seem quite high (i.e., 100 percent friend violence rate and 40 percent partner violence rate), it should be recognized that students in the current sample encompasses a largely urban metropolitan area that includes advantaged as well as very disadvantaged school settings, where we would expect violence and other deleterious outcomes to be higher than is the case in the general population. It is also noteworthy that there is significant variation across the various school-level indices (i.e., not all schools reporting high levels of partner violence also report high levels of friend violence or non-exclusivity). For instance, only five schools fall into the low, middle, or high-range categories on all three school-context measures.

Table 2 presents the results of regression models predicting TDV perpetration. The zero-order model indicates that consistent with prior research, being hit by parents is significantly related to TDV perpetration. In addition, friends’ use of violence toward the respondent and the respondent’s own report of non-exclusivity within their current/most recent relationship are significant correlates of TDV. At the zero-order level, attending a school with a mid-range level of violence toward friends is significantly related to TDV 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 TDV perpetration. Finally, attending a school with a high-level of reported non-exclusivity, as compared to a low-level, is significantly related to TDV perpetration, while midrange relative to low levels is not a significant correlate.
Turning next to the nested models in Table 2, model 1 regresses TDV perpetration on all of the control variables. Results indicate that respondents are about 14 percent more likely to be perpetrators of TDV for each year increase in age, while there is no statistically significant difference between male and female respondents in the reports of TDV perpetration. Turning to race/ethnicity, Black respondents’ odds of reporting TDV are 1.7 times higher than that of White respondents, while there are no statistically significant differences between Hispanic and “Other” respondents in comparison to White respondents. We also find significant differences with respect to family structure, where both single-parent and “other” family types are significantly more likely to report TDV perpetration than are respondents from two biological parent families, at 2.1 and 2.4 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 in TDV reports between those respondents reporting on a current compared to a most recent relationship.

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 percent less likely to report TDV perpetration. While only marginally significant, we see the same pattern among respondents whose parent(s) have a high school degree, where they are approximately 36 percent less likely to report TDV perpetration relative to 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 TDV perpetration, after accounting for other sociodemographic indicators, this correlate is no longer significant.

Models 2 and 3 add parental and friend violence measures separately to examine the effects of the behaviors of these intimate others on the likelihood of TDV perpetration. As suggested by prior research and social learning theories, respondents whose parents and friends use violence are significantly more likely to report perpetrating TDV themselves. Specifically, those individuals who report being hit by their parents, relative to those who were not, are about 86 percent more likely to perpetrate violence against their current/most recent partner. Similarly, respondents who report being hit by friends are about 169 percent more likely to engage in TDV perpetration than are adolescents whose friendships are free of such violence. Adding friends’ hitting in model 3 also reduces the effect of being hit by parents by about 17 percent. These findings are consistent with past research highlighting that during adolescence peers often serve as important agents of socialization. Furthermore, the addition of these victimization variables does not reduce any of the significant effects between the control variables and TDV perpetration in model 1.

Model 4 assesses the possible effect of non-exclusivity on the likelihood of engaging in TDV perpetration. Results indicate that respondents are approximately 137 percent more likely to report committing violence against their partner when they also report engaging in “infidelity behaviors” (non-exclusivity) in the relationship. Models 5 and 6 examine school-level measures of violence toward friends and non-exclusivity. 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. However, school-level reports of non-exclusivity are
significant as a predictor of respondents engaging in TDV perpetration. Specifically, attending a school characterized by a high-level of infidelity behaviors, relative to those attending schools with low-levels of reported non-exclusivity, increases the likelihood of individuals reporting TDV perpetration by 119 percent. A final model introduces the school-level partner violence measure. Results in Model 7 indicate that attending a school with a high level of partner violence increases the likelihood of respondents reporting TDV by 324 percent, compared to those individuals attending schools with low levels of partner violence.

When we include all of the other covariates, 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 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 TDV reports. Similarly, once TDV-specific contextual effects are taken into account, the previously observed effect of school-level non-exclusivity is no longer significant. This suggests that TDV is related to this aspect of school climate, which appears to contribute indirectly to variations in TDV 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 non-exclusivity and violence), and none of these interactions were significant. This suggests a similar effect of the social context on variations in TDV reports across gender. We also re-estimated 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).

CONCLUSIONS

The results of our analyses show that extra-familial influences matter for understanding variations in the experience of teen dating violence. Consistent with prior research, parental violence is a significant risk factor. However, net of family exposure and other socio-demographic characteristics, friends’ use of violence within the context of the friendship relationship increases the odds of the respondent reporting TDV perpetration. Results also highlight the role of the broader peer network as an additional layer of potential definitions and social influence. School-level violence (an aggregated measure of reports about hitting friends) is not strongly related to variations in TDV in the multivariate models, but the more specific measure—attending a school characterized by mid-level and high-level TDV—is significantly related to the odds of reporting TDV perpetration. Finally, the results suggest the utility of including other aspects of a school’s normative climate, as attending a school characterized by high levels of non-exclusivity within romantic relationships is also a significant correlate. These results are significant even after taking into account variations in respondents’ reports about non-exclusivity within their own relationships, but in the final model that includes school-level TDV, this relationship is attenuated. It is noteworthy that these models also control for poverty of the neighborhood in which the adolescent resides.
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. Moreover, as the learning process continues across multiple contexts, what is learned transcends violence-specific attitudes and behaviors. Although the current study only focused on one of these aspects of school climate (non-exclusivity), the results indicate that these dating behaviors were positive and significant predictors of TDV perpetration (before the inclusion of school-level partner violence in the final analytic model). This pattern of results suggests that TDV occurs within environments that are characterized by constellations of social dynamics that taken together comprise a given school’s normative climate. This basic point could be extended as motivation for future research exploring other social learning contexts and their influence on a range of outcomes. For example, most studies of intergenerational transmission of violence have relied on a relatively narrow repertoire of family factors as precursors—principally the parent’s own use of violence either against a partner or in victimizing the focal child. However, parents, through the continual process of communication, may also vary in the degree to which they convey feelings of gender mistrust, or experience frequent instability in their own relationships with partners.

These relationship-based attitudes and behaviors could also have an effect on the child’s developing understandings about the world of romantic relationships, and this broader set of expectancies may be implicated in discord and instabilities that characterize the adolescent’s own romantic involvement. In addition, studies of peer influence have tended to restrict studies to either attitudes about a behavior or whether the close friends enact the behavior themselves. Thus, for example, while delinquency of peers is a robust predictor of the individual’s own self-reported delinquency, in a recent longitudinal analysis, Seffrin et al. (2012) demonstrated that peers’ liberal dating norms (e.g., agreement that “it is ok to date more than one person at a time”) were associated with higher levels of delinquency involvement as respondents had matured into adulthood. Such findings suggest the need to move beyond the one-for-one focus of traditional social learning investigations to develop more multifaceted portraits of normative climates as they unfold within the family, through interactions with friends or across the broader contexts of school and neighborhood.

A limitation of the current study is the regional nature of the sample, although basic comparisons indicate that the large metropolitan area we focused on is similar to the United States as a whole on several basic demographic characteristics, including estimates of race and ethnicity, family status and income, and education. A second limitation is that in this analysis we did not fully explore the sources of variation in the school climates included here. A useful direction for future research is to forge links to structural sources of disadvantage and other ways of understanding the development of observed variations in schools’ normative climates. Neighborhood researchers have described variability in neighborhood characteristics, even within disadvantaged contexts (e.g., in levels of collective efficacy – see Gorman-Smith, Tolan and Henry 2000 and Sampson 2012), but clearly some of the attitudes that comprise the climate around issues of dating may be more prevalent within economically marginal areas. For example, Anderson (2013) described a pattern of peer support and reinforcement of attitudes/behaviors consistent with adapting a...
"player" identity that were characteristic of the neighborhood contexts he studied. This interplay between structural constraints and cultural variations warrants additional research scrutiny.

Another limitation of the current analysis is that although the sample includes a relatively large number of schools (32 in the analytic sample), thus allowing us to make school-context comparisons, some schools are omitted due to an insufficient number of respondents 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. Additional research is thus needed that draws on the complete populations of each school. In addition, much prior research on the adolescent period that is school based has either focused on problem outcomes (marijuana use, general violence), or the social life of the school (e.g., the presence of cliques, characteristics of the popular crowd, the role of sports and extra-curricular activities) (Popp and Peguero 2011; Sussman et al. 2007; Wang and Dishion 2012). The results of the current study suggest that it may be useful to integrate these separate traditions more fully, in order to understand how the school’s social climate may influence various facets of the developing adolescent’s emotional and physical well-being. Certainly other researchers have studied dating dynamics across levels of popularity (e.g., Barber, Eccles and Stone 2001; Waller 1937), but additional research on problem dynamics, such as TDV, are needed to supplement the more traditional focus on styles of dating and issues of sexuality.

Another issue is that 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 TDV, as these are constructed from responses from other students attending the same school. Finally, future research should assess whether the effects of peer networks and school contexts vary for youths whose experiences we could not systematically examine in the current investigation. For example, the number of youths involved in same-gender relationships (4 percent) is too small to allow a separate analysis of the experiences of these youths, and how their social networks operate as influences on TDV (supplementary analyses, not shown, illustrate no model changes whether the sample is restricted to only heterosexual youth). It is also quite possible that there are systematic variations in the degree to which school itself constitutes the most relevant “broader context” for some youths, or particular categories of youths. School attendance was not a requirement for completing the survey; thus our research design captured young people whose attendance was sporadic. Nevertheless, research is also needed on other non-school sources of social learning and influence, including the role of siblings and other young relatives, neighbors, and friends in work settings.

The current results have implications for efforts designed to deter or interrupt dating violence. Although TDV is a dyadic behavior, some recent prevention efforts targeting teens have developed a peer component or emphasis (see, e.g., Moynihan et al. 2014). The current
results add support for this emphasis, and also suggest that it may be useful to incorporate discussions about relationship dynamics associated with conflict escalation, as well as focusing on the harmful effects of resorting to violence within one’s intimate relationships. This somewhat broader relationship focus would also potentially result in increased receptivity and engagement of students, who generally have a strong interest in these dating issues and concerns (Eyre et al. 1998).

Acknowledgments

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References


Social Focus. Author manuscript; available in PMC 2016 April 07.


Cui, Ming; Gordon, Mellissa; Ueno, Koji; Fincham, Frank D. The Continuation of Intimate Partner Violence from Adolescence to Young Adulthood. Journal of Marriage and Family. 2013; 75(2):300–313. [PubMed: 23687386]


Social Focus. Author manuscript; available in PMC 2016 April 07.


Granovetter, Mark S. The Strength of Weak Ties. American Journal of Sociology. 1973; 78(6):1360–1380.


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**Biographies**

Peggy C. Giordano is Distinguished Research Professor of Sociology at Bowling Green State University. Her research centers on basic social network processes and the ways in which dynamics within relationships influence outcomes such as intimate partner violence during adolescence and emerging adulthood.

Angela Kaufman is an assistant professor of criminology at Assumption College. Her research interests include criminological theory, juvenile delinquency, and life course criminality.

Monica A. Longmore is a professor of sociology at Bowling Green State University. Her interests include social psychological processes, including the nature and consequences of dimensions of the self-concept, especially the impact of self-conceptions on adolescent and young adults’ dating and sexual behavior.

Wendy D. Manning is Distinguished Research Professor of Sociology at Bowling Green State University, director of the Center for Family and Demographic Research, and co-director of the National Center for Family and Marriage Research. Her research focuses on relationships that exist outside the boundaries of marriage, including cohabitation, adolescent dating, and nonresident parenting.
Table 1

Individual and School-Level Characteristics by self-reported TDV Perpetration

<table>
<thead>
<tr>
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<th>TDV Peretration – No</th>
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<th>Total</th>
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*Sociol Focus. Author manuscript; available in PMC 2016 April 07.*
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Percentages are shown (exception: age, poverty indicator, and school-level contextual factors reported in means). N = 955
Table 2
Logistic Regression Predicting TDV Perpetration with Individual and School-Climate Factors

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<th>Regressor</th>
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<th>Model 2</th>
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<td>1.861**</td>
<td>1.548*</td>
<td>1.551*</td>
<td>1.495*</td>
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<td>1.138*</td>
<td>1.140*</td>
<td>1.196**</td>
<td>1.183**</td>
<td>1.168*</td>
<td>1.062</td>
<td>1.030</td>
</tr>
<tr>
<td>Female (male)</td>
<td>1.176</td>
<td>1.069</td>
<td>1.034</td>
<td>1.319</td>
<td>1.328</td>
<td>1.307</td>
<td>1.279</td>
<td>1.259</td>
</tr>
<tr>
<td><strong>Race (white)</strong></td>
<td></td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>Black</td>
<td>2.402***</td>
<td>1.720*</td>
<td>1.698*</td>
<td>1.741*</td>
<td>1.727*</td>
<td>1.664*</td>
<td>1.713*</td>
<td>1.539</td>
</tr>
<tr>
<td>Hispanic</td>
<td>1.106</td>
<td>1.073</td>
<td>1.023</td>
<td>1.072</td>
<td>1.029</td>
<td>0.985</td>
<td>1.007</td>
<td>0.903</td>
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<tr>
<td>Other Race</td>
<td>1.286</td>
<td>1.839</td>
<td>1.718</td>
<td>1.663</td>
<td>1.753</td>
<td>1.764</td>
<td>1.703</td>
<td>1.470</td>
</tr>
<tr>
<td><strong>Family Structure (biological parents)</strong></td>
<td></td>
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<td></td>
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<tr>
<td>Single Parent</td>
<td>2.061***</td>
<td>2.123***</td>
<td>2.080**</td>
<td>2.284***</td>
<td>2.451***</td>
<td>2.523***</td>
<td>2.526***</td>
<td>2.469***</td>
</tr>
<tr>
<td>Stepparent</td>
<td>0.635</td>
<td>0.931</td>
<td>0.938</td>
<td>0.940</td>
<td>0.944</td>
<td>0.946</td>
<td>0.927</td>
<td>0.933</td>
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<tr>
<td>Other Family</td>
<td>2.252***</td>
<td>2.436***</td>
<td>2.433***</td>
<td>2.614***</td>
<td>2.646***</td>
<td>2.747***</td>
<td>2.745***</td>
<td>2.588***</td>
</tr>
<tr>
<td>Regressor</td>
<td>Zero Order</td>
<td>Model 1</td>
<td>Model 2</td>
<td>Model 3</td>
<td>Model 4</td>
<td>Model 5</td>
<td>Model 6</td>
<td>Model 7</td>
</tr>
<tr>
<td>---------------------------------</td>
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<td>--------------</td>
<td>--------------</td>
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<tr>
<td><strong>Parent Education (less than high school education)</strong></td>
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<tr>
<td>High School Graduate</td>
<td>0.532**</td>
<td>0.640*</td>
<td>0.650*</td>
<td>0.614*</td>
<td>0.574*</td>
<td>0.588*</td>
<td>0.569*</td>
<td>0.576*</td>
</tr>
<tr>
<td>College Graduate</td>
<td>0.288***</td>
<td>0.428*</td>
<td>0.457*</td>
<td>0.429*</td>
<td>0.400**</td>
<td>0.422*</td>
<td>0.410*</td>
<td>0.479*</td>
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<tr>
<td><strong>Poverty Indicator</strong></td>
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</tr>
<tr>
<td>Percent in Poverty</td>
<td>1.021***</td>
<td>1.000</td>
<td>0.999</td>
<td>0.998</td>
<td>0.999</td>
<td>0.998</td>
<td>1.000</td>
<td>0.997</td>
</tr>
<tr>
<td>Intercept</td>
<td>0.020***</td>
<td>0.016***</td>
<td>0.004***</td>
<td>0.003***</td>
<td>0.003***</td>
<td>0.009***</td>
<td>0.009***</td>
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<tr>
<td>$\chi^2$</td>
<td>60.00</td>
<td>69.58</td>
<td>94.55</td>
<td>106.61</td>
<td>109.56</td>
<td>115.00</td>
<td>126.20</td>
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<tr>
<td>Pseudo R²</td>
<td>0.0706</td>
<td>0.0818</td>
<td>0.1112</td>
<td>0.1254</td>
<td>0.1288</td>
<td>0.1352</td>
<td>0.1484</td>
<td></td>
</tr>
</tbody>
</table>

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

^ $p < 0.10$

* $p < 0.05$

** $p < 0.01$

*** $p < 0.001$