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Co-occurrence of Dating Violence Victimization Subtypes: Assessing the Influence of Family Factors, Dating Attitudes, Risky Behaviors, and the Moderating Effect of Gender Among School-Aged Teens

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Abstract

Using data from a nationally representative sample of school-aged teens ($n = 795$), this study examined covariates associated with three subtypes of dating violence victimization (physical violence, emotional abuse, and imposed isolation). We asked the research questions: What were the family factors, dating attitudes, and risky behaviors associated with three subtypes of dating violence victimization across two time points? Second, were these relationships moderated by gender? Overall, we found widespread co-occurrence of victimization. Contrary to our predictions, not all earlier experiences with dating violence victimization worsened or persisted overtime. Regarding family factors, we did not find substantial statistically significant effects on victimization, with the exception that greater openness with parents was associated with increased occurrence of emotional abuse at Wave 1. In terms of dating attitudes, we found that when respondents condoned violence against a girlfriend, they were more likely to experience physical violence victimization at both waves. Respondents who believed that it is okay to use violence to control a boyfriend's behavior were more likely to report emotional abuse at Wave 1. Similarly, respondents who believed that it is okay to date more than one person, as well as those who condoned sexual intercourse outside of a romantic relationship, were more susceptible to emotional abuse. Regarding risky behaviors, we found that the respondents' victimization experience did not increase with a greater sexual partner acquisition; rather, it exerted the opposite effect on their experience with physical violence victimization. These risky behaviors, however, were only statistically significant at Wave 1. Finally, the moderating effect of gender is noted in the study. Implications from the study are discussed.

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Keywords

teen dating violence; family factors; dating attitudes; risky behaviors; school-aged teens

Adolescence is a developmental period marked by rapid interpersonal changes, during which teens develop the capacity to form intimate relationships and the desire for increased autonomy (Chang & Rosenthal, 2018; Connolly & McIsaac, 2013; Giordano, Manning, Longmore, & Flanigan, 2012). Over one-third (35%) of adolescents, aged 13 to 17 years, report having ever dated (Lenhart, Anderson, & Smith, 2015). Dating experiences may positively influence teens' identity development and set the path for achieving intimacy in adulthood (Connolly et al., 2014; Norona, Roberson, & Welsh, 2017). Nevertheless, violence in teen dating relationships is an issue of growing importance, with prevalence rates ranging from 7% to 69% (Mendoza & Mulford, 2018; National Institute of Justice, 2016, 2017; Wincentak, Connolly, & Card, 2017). These estimates are concerning, as teen dating violence victimization has been linked to a host of social concerns including increased risk of suicidal ideation, illicit drug use, smoking, delinquency, binge drinking, academic challenges, antisocial behaviors, and relational challenges (Centers for Disease Control and Prevention [CDC], 2018; Exner-Cortens, Eckenrode, & Rothman, 2013; U.S. Department of Education, 2015) as well as to other adverse outcomes, such as physical injuries, weight issues, eating disorders, and unintended pregnancy (CDC, 2018; Clark et al., 2014; Cutter-Wilson & Richmond, 2011; U.S. Department of Education, 2015; Van Ouytsel et al., 2017). In the realm of mental health, dating violence victims have been known to suffer from low self-esteem and exhibit symptoms of posttraumatic stress disorder, anxiety, depression, obsessive compulsive disorder, and emotional distress (CDC, 2018; Cutter-Wilson & Richmond, 2011). These problems may exacerbate additional difficulties in adulthood (Connolly et al., 2014; Exner-Cortens et al., 2013). Further, peer pressure (e.g., the need to have a boyfriend/girlfriend) and benefits (i.e., material, sexual, and social) may pressure teens to remain in abusive relationships (e.g., Fredland et al., 2005; Oudekerk, Demner, & Mulford, 2014).

To date, much of the dating violence literature centers on cross-sectional studies that examine factors associated with specific types of teen dating violence victimization. Less is known, however, about the co-occurrence of dating violence victimization of varying intensity or scope, the moderating effect of gender, and their longitudinal association with other critical factors during this developmental phase. Examining gender-specific contextual variables is crucial during this transitional period, given that teens are exhibiting greater propensity for risky behavioral experimentation and attitudinal changes toward dating; yet, many remain responsive to parental influence (e.g., Foshee et al., 2012). To address this gap, we sought to identify covariates that are associated with three common dating violence victimization subtypes (i.e., physical violence, emotional abuse, and imposed isolation) that are of different intensity and scope over time, while controlling for variables that are pertinent to this developmental life stage. Our research was guided by the following two questions: First, what were the family factors, dating attitudes, and risky behaviors associated with three subtypes of dating violence victimization across two time points? Second, were these relationships moderated by gender?

DATING VIOLENCE VICTIMIZATION

As with intimate partner violence that occurs in later stages of life (e.g., early adulthood, middle adulthood), teen dating violence victimization encompasses the experience of various forms of aggression, including physical violence, emotional abuse, and imposed isolation. Unlike most adults, however, teens may lack the necessary social skills, life experience, and solidified identity to cope with these adversities (Cutter-Wilson & Richmond, 2011; Missouri Coalition Against Domestic and Sexual Violence, n.d.). Physical dating violence entails the intentional use of force and threats of action to control and/or injure the victim. Such violence may involve any form of physical altercation and acts, such as slapping, shoving, hitting, choking, punching, and biting (National Center for Victims of Crime, 2012; National Domestic Violence Hotline, n.d.; Swan, Gambone, Caldwell, Sullivan, & Snow, 2008). Emotional abuse comprises covert or overt speech and behavior to induce fear or guilt or/and to manipulate or diminish the victim's sense of self-worth. This involves behaviors such as belittling, insulting, humiliating, name-calling, and withholding affection (Leisring, 2013; National Domestic Violence Hotline, n.d.). Often arising from jealousy or insecurity, it is also not uncommon for abusers to exert control by severing the victim's ties with the outside world while attributing such imposed isolation behaviors to signs of love or concern (Baker & Carreño, 2016). Research on teen dating violence that focuses on gender differences in prevalence rates has thus far reported inconsistent findings with some studies suggesting one gender to be victimized at a higher rate, while others report comparable rates (National Institute of Justice, 2016; Wincentak, Connolly, & Card, 2017). Yet, there is evidence that girls are disproportionately more likely to be injured during such violent acts (Reidy et al., 2016).

FACTORS ASSOCIATED WITH DATING VIOLENCE VICTIMIZATION

Social science theories, including social cognitive theory and the socioecological model, recognize the influence of environmental factors, personal cognitions, and behavioral influences on an individual's behavior (Bandura, 1986; Sallis & Owen, 2002). To date, considerable studies have asserted the role that teens' social environment plays in understanding the context of teen dating violence (e.g., Peskin et al., 2017; Temple & Freeman, 2011; Whitaker & Savage, 2014). The application of insights from these theoretical frameworks as a holistic approach to understand teen dating violence is critical given that teens do not live in a social vacuum but are intimately linked to other social relationships and networks, including family and peers. Previous studies in teen dating violence indicate that family factors, dating attitudes, and engaging in risky behaviors, such as delinquency, substance use, and early sexual activity, are associated with a youth's experience of teen dating violence victimization (CDC, 2018; Exner-Cortens et al., 2013; Santana, Raj, Decker, Marche, & Silverman, 2006; van de Bongardt, Yu, Dekovi, & Meeus, 2015).

FAMILY FACTORS

Family plays a vital role in shaping a teen's social network and in forming healthy partnerships (e.g., Foshee et al., 2012; van de Bongardt et al., 2015). From a social

control and social bonding perspective, parental monitoring comprises routinely keeping track of their teens' activities, whereabouts, and interactions as well as placing restriction on the teens' peer network while also providing needed guidance (Hirschi, 1969; Kiesner, Poulin, & Dishion, 2010; Laird, Marrero, & Sentse, 2010). Empirical evidence indicates that parental monitoring and supervision are linked to positive aspects of child adjustment, behavioral control, skill acquisition, academic performance, self-regulatory processes, and personal development (Bacchini, Miranda, & Affuso, 2011; Racz & McMahon, 2011; Sanders, Kirby, Tellegen, & Day, 2014). In the dating arena, parents have traditionally played a critical role in shaping their teens' courting behavior and sexual engagement by imparting their values/expectations, offering support, and communicating the consequences of their teens' behavior (e.g., van de Bongardt et al., 2015). Conversely, some parents may prohibit their teens from dating or engaging in sexual relations until certain criteria are met (e.g., good grades, high school graduation, or a marriage proposal). Parental monitoring and communication about dating may differ between daughters and sons; as Wilson and Koo (2010) pointed out, parents have more communication about sex and its harmful consequences with their daughters than their sons. Social learning theorists suggest that parents provide a contextual environment for their children to emulate or follow (Akers, 2011; CDC, n.d.; O'Connor, Matias, Futh, Tantam, & Scott, 2012). Notably, substantial evidence indicates that children growing up in violent households are more likely to perceive aggression as a normative behavior in varied aspects of social life, including dating relationships (Sousa et al., 2011; UNICEF, n.d.). On the contrary, parental connectedness has been consistently identified as a protective factor against teens' adverse life outcomes (Logan, Crosby, & Hamburger, 2011). Applying a social bonding perspective, teens who feel more closely connected to their parents may keep their parents informed more readily and avoid activities that they believe will upset their parents.

DATING ATTITUDES

Considerable research efforts have been extended to study the associations between or causal effect of dating attitudes on the occurrence of youth violence (Courtain, & Glowacz, 2018; Foshee, Linder, MacDougall, & Bangdiwala, 2001; Gonzalez-Guarda et al., 2014; Sears & Byers, 2010; Sears, Byers, & Price, 2007). Regular exposure to social contexts (e.g., media, video games, rap music) that denigrate women as sexual objects or that emphasize their subordinate status has been found to reinforce sexual stereotyping, leading to inaccurate preconceived notions of healthy sexuality and acceptance of behaviors that justify or condone violence (Bègue, Sarda, Gentile, Bry, & Roché, 2017; Gabbiadini, Riva, Andrighetto, Volpato, & Bushman, 2016; Weitzer & Kubrin, 2009). From a feminist perspective, socialization that promotes rigid sexist stereotyping and gender inequality increases the incidence of dating violence, in part, because such beliefs uphold unrealistic role expectations, whereby males are expected to demonstrate strength and dominance through the use of violence, while females are expected to be docile and submissive (e.g., Cummings, Gonzalez-Guarda, & Sandoval, 2013; Reidy, Smith-Darden, Cortina, Kernsmith, & Kernsmith, 2015). There is evidence that boys who engage in dating violence perpetration are more likely to support traditional gender norms and more likely to believe in male privilege and female inferiority (Santana et al., 2006). Without positive conflict resolution

tactics, distorted perceptions of masculinity may be manifested in other unsafe and risky behaviors that compromise subsequent health and life quality, including sexually risky practices (e.g., having multiple sexual partners, engaging in unprotected sex) and alcohol consumption (Iwamoto, Cheng, Lee, Takamatsu, & Gordon, 2011; Reidy et al., 2015; Rich, Nkosi, & Morojele, 2015).

RISKY BEHAVIORS

Research has brought attention to the possible linkages between dating violence and a number of risky behaviors (e.g., delinquent behaviors, substance use, sexually risky behaviors (CDC, 2018; Exner-Cortens et al., 2013). It has been speculated that delinquent teens are predisposed to dating violence victimization, given their greater likelihood of dating someone like themselves (Cauffman, Farruggia, & Goldweber, 2008), thereby increasing the risk of violence in their relationship. In addition, among teens who experience dating violence, girls especially, may be coerced by an abusive partner to engage in criminal activities, making them more likely to get involved with the juvenile justice system (National Judicial Education Program, 2015). Yet, girls and boys may commit different types of offences with girls committing less severe offences (i.e., more status offenses and less violent crimes) (Groot, 2010). Other risky behaviors, such as early initiation of sexual intercourse and having a greater number of lifetime sexual partners, are among the factors known to be connected with increased risk of dating violence victimization, for females in particular (Hipwell et al., 2013; Silverman, Raj, & Clements, 2004; Silverman, Raj, Mucci, & Hathaway, 2001). Further, sexual activity increases emotional intensity (including jealousy and control) in a relationship, and victimized teens who are sexually involved may react by becoming more sexually active owing to confusion or anxiety in regard to what constitutes appropriate sexual attitudes or behaviors (e.g., Davis, Shaver, & Vernon, 2004).

Whether recreational or experimental, early initiation of illicit substance use increases propensities for addiction and dating violence (Odgers et al., 2008; Reyes, Foshee, Tharp, Ennett, & Bauer, 2015). The 2016 National Study on Drug Use and Health reported that 2 million teens aged 12 to 17 years used illicit drugs during the month before the data collection took place, among whom 789,000 had an illicit drug use disorder (Substance Abuse and Mental Health Services Administration, n.d.). Specifically, the prevalence rate for substance use typically increases rapidly between early and late adolescence before it peaks in adulthood (Griffin & Botvin, 2011) with females showing a higher level of usage in early adolescence and males demonstrating a greater level during mid-adolescence and early adulthood (Chen & Jacobson, 2012). There is speculation that rates of smoking, marijuana use, binge drinking, and nonmedical use of prescription drugs are higher among teens who experience dating violence victimization than among their nonabused peers (e.g., Exner-Cortens et al., 2013; Miller, 2017; Temple, Shorey, Fite, Stuart, & Le, 2013), as some teens may self-medicate to cope with the victimization (Parker & Bradshaw, 2015).

THE STUDY

Hypotheses

Because there are various ways in which teen dating violence can manifest, to investigate the influence of family factors, dating attitudes, and risky behaviors on dating violence victimization, we assessed three common subtypes of violence that are of different intensity and scope: physical violence, emotional abuse, and imposed isolation. We hypothesized that these dating violence subtypes would be associated with each other. Family influence was examined in terms of the respondents' openness with their parents and parental knowledge of the respondents' whereabouts. Based on our review of the literature, we hypothesized that greater openness and parental monitoring would be negatively associated with the respondents' experience with any of the three subtypes of dating violence victimization. We also hypothesized that holding attitudes that include condoning others for hitting their boyfriend or girlfriend would be indications of violence acceptance and that such attitudes would be associated with the respondents' experience with violence, thereby increasing the likelihood of victimization. In addition, attitudes in support of serial dating (i.e., it is okay to date more than one person at a time) and sexual promiscuity (i.e., it is okay to have sex with someone you do not love) were deemed to be risk factors for dating violence victimization. We also examined three types of risky behaviors (respondents' number of sexual partners, engagement in delinquency, and substance use). Specifically, we hypothesized that respondents' experience of the three types of dating violence victimization noted above was expected to increase with a greater number of sexual partners. We expected that engaging in delinquent behaviors and substance use would increase the likelihood of experiencing dating violence victimization. Finally, we controlled for the respondents' sociodemographic characteristics, such as gender and race/ethnicity. Because developmental pathways for girls and boys differ markedly, we hypothesized that the relationships between our variables of interests and outcomes would be moderated by the respondents' gender.

Method

The National Survey of Teen Relationships and Intimate Violence is a nationally representative study that was administered over two waves spanning 3 years, between 2013 and 2015 (Taylor & Mumford, 2017). The purpose of the study was to investigate teens' relationship dynamics, in particular, abusive interactions among youths from middle childhood to late adolescence (between ages 10 and 18), based on both the parents' and youths' perspective. Respondents in the first wave of the data collection were recruited from a nationally representative sample of 5,105 households with at least one resident youth by the largest probability-based online panel, the Growth From Knowledge (GFK) Panel (GFK, n.d.) Potential respondents were invited to take part in a parent and youth survey in their language of preference (i.e., English or Spanish). Once the parent consented to the survey, a resident youth (if there was more than one) was randomly selected using a web survey algorithm. Both parent and youth were asked to complete the baseline survey and a follow-up survey one year later. Both baseline and follow-up surveys were administered through a secure web-based survey program, with online assistance and a toll-free telephone line available for respondents. Each household received a \$20 honorarium for each wave (which they could redeem for cash or products) through the GFK points system.

The response rate for the dyadic sample for the first wave was approximately 50% and, for the second wave, 62.5% of the original parent–child dyads at Wave 1 completed the survey (Taylor, Mumford, & Liu, 2016). The dataset, which is publicly accessible at the Inter-University Consortium for Political and Social Research (ICPSR) depositor, was well suited for our study because it contained detailed information about the risk and protective factors that influence teen dating. Given that we were interested primarily in the youths' perspective, we excluded parents' responses from this study. In addition, because youths aged 10 and 11 were not asked questions concerning dating violence in the survey, our sample comprises only youths between the ages of 12 and 18 years, who had ever dated. Although sexual minority teens such as lesbian, gay, and bisexual respondents may experience dating differently from heterosexual teens (e.g., experience more victimization) (Dank, Lachman, Zweig, & Yahner, 2014; Reuter, Sharp, & Temple, 2015), we were not able to differentiate the respondents based on their sexual identity and orientation due to the nature of the questions in the survey. Additionally, the survey instrument did not discern if the relationship at Wave 1 was the same or different from that at Wave 2. However, to increase validity of our study results, we restricted our data analysis to respondents who self-identified as having been in a dating relationship for at least a week.

Dependent Variables

Our dependent variables consist of three dating violence victimization variables that were measured at two time points (Table 1). The 7-item physical violence victimization scale concerns physically aggressive acts of varying intensity in the relationship between youths and their current dating partner or most recent dating partner if they were not dating at the time that the data collection took place. The 9-item emotional abuse scale assesses the psychological conflicts that youths experienced with their dating partner. The 3-item imposed isolation scale captures the extent to which their partner tried to seclude them from others. Responses to scale items were based on a 4-point Likert scale that ranged from never (i.e., zero occurrence) to often (i.e., happened six times or more) throughout their dating relationship. Some of the items were adapted from the modified version of the Conflict in Adolescent Dating Relationships Inventory (CADRI) (Taylor et al., 2016; Wolfe et al., 2001). Items were recoded, as needed, so that higher values reflected higher intensity of victimization sustained. Results from the factor analyses performed (using the principal components method) with their respective items prior to summing the item responses to construct each scale indicated a one-factor solution. Reliability alphas for the variables were all above 0.80 for both the first and second waves.

All three variables were measured at the first and second wave, with each variable serving as the dependent variable for each model.

Family Variables

Openness with parents, a count measure of parent–child connectedness, concerns the degree to which the respondents were willing to disclose to their parents, or another adult in their home, issues that were pertinent to their dating, personal life, or schooling, with a higher score indicating a higher level of readiness to share. Because parental monitoring is essential in ensuring the safety and protection of their children, we also examined teens' perception

of parental knowledge regarding their whereabouts when they were on a date. This was a dichotomous variable coded as 1 if their parents “always” knew their whereabouts, and 0 if their parents “sometimes” or “never” knew their whereabouts.

Dating Attitudes

Four types of dating attitudes were also assessed. First, respondents were asked to share their views on four circumstances in which they thought it would be appropriate for someone to impose violence against a boyfriend and a girlfriend respectively. Responses to scale items, selected based on the grouping and dimensionality indicated in the factor analysis, were based on a 4-point Likert scale that ranged from “strongly disagree” to “strongly agree,” with reliability alpha for both scales as 0.90 and 0.95, respectively. Prior to summing, items were recoded as needed so that higher scores denoted higher values. Next, respondents were asked to indicate their agreement or disagreement on two statements: (a) “It is ok to date more than one person at a time” and (b) “It is ok to have sex with someone you do not love.” The same 4-point Likert scale was used for the responses. These two variables were coded 1 if the respondents selected “agree” or “strongly agree” with the above statements, and 0 for a response of either “disagree” or “strongly disagree.”

Risky Behaviors

We included three risky behavior variables in our analysis. The first behavior was number of sexual partners, which signified the total lifetime number of sexual partners that a respondent had. The second was their engagement in delinquent behaviors (e.g., running away, stealing, selling drugs), which was assessed with a 5-item scale that indicated the type and frequency of delinquent acts in which a respondent engaged in the last 12 months. Response categories were based on 3-point rating scale that ranged from “never” to “more than once” (Cronbach’s alpha = .66). The third behavior was substance use, which was assessed by the prevalence and types of substance (alcoholic beverages, cigarettes, or marijuana) that respondents reported using within the last year, with a higher number signaling more experience with substance use (Cronbach’s alpha = .81). Scale items for the latter two scales were selected based on results on the dimensionality indicated in the factor analyses.

Sociodemographic Variables

Self-identified race/ethnicity was represented by four response categories (White, Black, Hispanic, and other), with White as the reference category. Of the respondents, close to 60% (59.4%) were White. Gender was coded with male as 1 and female as 0. Slightly over half (50.8%) of the respondents were male.

Analytical Approach

Data analyses were conducted in several phases. First, descriptive statistics were presented. Following Kaukinen, Gover, and Hartman (2012), the prevalence of each dating violence victimization item was evaluated as a percentage of the respondents who had experienced victimization through a particular act. Chronicity was calculated as the average times that the respondents were victimized through each act. Paired *t* tests were performed

to determine whether the chronicity scores between the two waves were significantly different from zero. Next, multiple regression analyses, with full information maximum likelihood estimation (**FIML**), were used to assess the association between our variables of interest (family variables, dating attitudes, risky behavior variables) and dating violence victimization. Multiple regression analysis is a statistical procedure that examines the relationship between a dependent variable and the independent variables in the model, while controlling for the effect of other variables (Keith, 2015; Konasani & Kadre, 2015). To improve efficiency of parameter calculation, **FIML** estimates the models, using all available information in the presence of missing data to produce unbiased parameters (Enders, 2010). To establish temporal order, variables of the earlier time point (Wave 1) were used to examine their influence on the respondents' experience with dating violence victimization that occurred at the later time point (Wave 2). To determine if gender moderates the relationship between our variables of interest and different subtypes of dating violence victimization, we performed additional analyses by assessing each model separately by gender to determine if any pair of regression coefficients was significantly different for male and female respondents using the following formula postulated by Brame, Paternoster, Mazerolle, and Piquero (1998):

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

Results

Physical Violence Victimization.—Our descriptive analyses indicated that having something thrown at oneself; being slapped or having one's hair pulled; and being pushed, shoved, or shaken were the most common forms of physical violence experienced at Wave 1. Having a partner threatening to hit or throw something was more prevalent at Wave 2, and its chronicity value was statistically higher in Wave 2 than in Wave 1 ($p < .001$; Table 1). The results of our multiple regression analyses indicated that respondents who reported confronting emotional abuse and imposed isolation at Wave 1 were more likely to experience physical violence victimization at Wave 1 ($b = 0.136$, $p < .001$ for emotional abuse; $b = 0.234$, $p < .001$ for imposed isolation), holding other variables constant (Model 1).

In Model 2, both types of victimization noted above, measured at Wave 2, were also significantly related to physical violence at Wave 2 ($b = 0.214$, $p < .001$ for emotional abuse; $b = 0.230$, $p < .05$ for imposed isolation). These effects were above and beyond other effects in the model. Controlling for other variables in the model, physical violence at Wave 1 was associated with physical violence at Wave 2 ($b = 0.501$, $p < .001$). In other words, for every unit increase in the physical violence scale at Wave 1, the respondents' physical violence, measured at Wave 2 increased by 0.501 units. Unexpectedly, we found that emotional abuse at Wave 1 was inversely related to their experience with physical violence at Wave 2 ($b = -0.110$, $p < .01$; Model 2). Regarding family variables, no statistically significant associations were noted between openness with parents or parental monitoring and experience of physical violence victimization at Waves 1 or 2.

With respect to dating attitudes, respondents who condoned hitting a girlfriend at Wave 1 were statistically more likely to experience physical violence victimization at Waves 1 and 2 when other variables were held constant ($b = 0.154, p < .001$ for Wave 1; $b = 0.179, p < .05$ for Wave 2). No other statistically significant associations between other dating attitudes and physical violence victimization in Waves 1 or 2 were noted. Contrary to our prediction, respondents' number of sexual partners was negatively associated with their experience of physical violence victimization at Wave 1 ($b = -0.146, p < .01$); however, this association was not statistically significant at Wave 2 (Models 1 and 2). Stated differently, for every additional sexual partner the respondent acquired at Wave 1, the respondents' physical violence, measured at Wave 2, decreased by 0.146 units.

As hypothesized, respondents' engagement in delinquent acts and substance use was associated with an increased occurrence of physical violence victimization at Wave 1 ($b = 0.232, p < .001$; $b = 0.056, p < .01$, respectively); however, these relationships were not statistically significant at Wave 2. Although racial/ethnic identity was not significantly associated with physical violence at Wave 1, Black respondents reported a greater likelihood of experiencing physical violence at Wave 2 as compared to their White counterparts ($b = 1.120, p < .05$). No statistically significant associations between gender and physical violence victimization were noted at Waves 1 or 2 (Models 1 and 2).

Emotional Abuse Victimization.—Table 1 indicates that just over one-third (34.4%) of the respondents had a partner who, at Wave 1, had done something to provoke their jealousy. Approximately one in three claimed, among other behaviors, that their partner kept track of their activities/location and accused them of flirting with others. The types of emotional abuse that respondents experienced at Wave 2 did not differ markedly from what they had experienced at Wave 1; however, based on the paired t test analyses of the chronicity scores, substantially more reported that their partner also said things to anger them or used a hostile or mean tone at Wave 2 ($p < .001$). The results of our multiple regression analyses indicated that respondents who reported experiencing physical violence victimization and imposed isolation at Wave 1 were more likely to face emotional abuse victimization during the same wave ($b = 0.855, p < .001$ for physical violence; $b = 1.686, p < .001$ for imposed isolation), controlling for the effect of other variables (Model 3).

Similarly, at Wave 2, respondents who encountered physical violence and imposed isolation at Wave 2 were also more likely to experience emotional abuse at Wave 2 when the effects of other variables were taken into consideration ($b = 0.636, p < .001$ for physical violence; $b = 1.696, p < .001$ for imposed isolation). Conversely, respondents who reported physical violence victimization at Wave 1 were less likely to report emotional abuse at Wave 2 ($b = -0.768, p < .001$). Similar to the findings for physical violence at Wave 1 in Model 2, respondents with a history of emotional abuse at Wave 1 were more likely to experience similar abuse in Wave 2 ($b = 0.473, p < .001$), with 0.47 units increase at Wave 2 for every unit increase in Wave 1 (Model 4). In regard to family variables, the respondents' openness with their parents was significantly associated with their emotional abuse victimization at Wave 1 ($b = 0.277, p < .05$), contrary to our expectations (Model 3).

In addition, holding the perception that it was acceptable to impose violence on a boyfriend was associated with the respondents' experience with emotional abuse victimization at Wave 1 but not at Wave 2 ($b = 0.211, p < .01$ for Wave 1). Likewise, those who believed that it was okay to date more than one person at a time or that it was okay to have sex with someone they didn't love were more likely to experience emotional abuse ($b = 0.690, p < .05; b = 0.732, p < .05$ respectively); however, these associations were not statistically significant at Wave 2. When risky behaviors were taken into account, substance use was the only behavior that was significantly associated with experiencing emotional abuse at Wave 1 ($b = 0.162, p < .01$). No statistically significant associations between risky behaviors and emotional abuse were found at Wave 2. Finally, no statistically significant associations between race/ethnicity or gender and emotional abuse victimization were noted at Waves 1 or 2 (Models 3 and 4).

Imposed Isolation.—In both Waves 1 and 2, spreading rumors was the most prevalent form of imposed isolation. Further, the chronicity value increased significantly between Waves 1 and 2 ($p < .05$; Table 1). The results of our multiple regression analyses indicated that experiencing physical violence and emotional abuse at Wave 1 resulted in a significantly greater likelihood of experiencing imposed isolation during the same wave ($b = 0.099, p < .001$ for physical violence and $b = 0.113, p < .001$ for emotional abuse; Model 5).

Similarly, controlling for other effect in the model, youths who acknowledged physical violence and emotional abuse at Wave 2 were also more likely to report imposed isolation at Wave 2 ($b = 0.053, p < .05$ for physical violence and $b = 0.133, p < .001$ for emotional abuse). Although encountering physical violence victimization at Wave 1 made the experience of imposed isolation at Wave 2 more likely ($b = 0.234, p < .001$), respondents who acknowledged emotional abuse at Wave 1 were less likely to have encountered imposed isolation at Wave 2 ($b = -0.095, p < .001$). Conversely, experience with imposed isolation at Wave 1 made one more likely to report imposed isolation at Wave 2 ($b = 0.414, p < .001$). Specifically, for every unit increase at Wave 1, the scale value at Wave 2 increased by 0.41 units (Model 6).

With respect to family variables and dating attitudes, no statistically significant associations were found with imposed isolation at Waves 1 or 2. Regarding risky behavior variables, contrary to our expectations, using drugs was inversely associated with imposed isolation at Wave 1 ($b = -0.033, p < .05$), making seclusion less likely. No other statistically significant associations were noted between other risky behavior variables and imposed isolation at Waves 1 or 2. Finally, being Hispanic appeared to exert a protective effect against imposed isolation at Wave 1 as compared to their White counterparts ($b = -0.176, p < .05$); however, the association was not statistically significant at Wave 2. Additionally, no other statistically significant associations between race/ethnicity or gender and imposed isolation were noted at Waves 1 or 2.

Table 3 presents the simplified and statistical significant results of the multiple regression analyses using one gender sample for each model, generating a total of 12 models. Our analyses showed that condoning violence on a girlfriend and substance use at Wave 1 had a positive association with the female respondents' victimization experience with physical violence at Wave 1 but not for their male counterparts' ($z = -2.666; p < .01$ and $z = -2.972$;

$p < .01$ respectively). Nevertheless, condoning violence on a girlfriend was negatively associated with the female respondents' encounter with emotional abuse at Wave 1 ($z = 3.922, p < .001$), decreasing the incidence of abuse. Female respondents' engagement in delinquency was positively linked to similar abuse ($z = -2.360, p < .05$), but this, however, was not the case for male respondents. Further, experiencing physical violence at Wave 1 made the incidence of emotional abuse at Wave 2 less likely for female respondents; this variable, however, was not statistically significant among the male respondents ($z = 1.962, p < .05$). Further, when gender was taken into account, experiencing physical violence at Wave 2 was associated with experiencing imposed isolation during the same wave for females, but not for males ($z = -2.189, p < .05$). Lastly, experiencing emotional abuse at an earlier wave (i.e. Wave 1) decreased the likelihood of imposed isolation at a later wave (i.e., Wave 2) but the finding was only statistically significant for male respondents ($z = -4.090, p < 0.001$).

Discussion

Teen dating violence is an urgent and widespread public health concern in the United States, which can have long-lasting individual and societal consequences (CDC, 2018; U.S. Department of Education, 2015; Van Ouytsel et al., 2017). This study examined the influence of family factors, dating attitudes, and risky behaviors on dating violence victimization among school-aged youths. Because teen dating violence is a multifaceted concept, we examined three subtypes of victimization (i.e., physical violence, emotional abuse, and imposed isolation). Overall, we found that these three different forms of victimization often co-occurred, with the occurrence of one type of victimization increasing the likelihood of the occurrence of others. This finding is consistent with previous studies and reiterates the need to investigate the simultaneous occurrence of different types of abuse to fully understand teen dating violence (Sears & Byers, 2010; Sears, Byers, & Price, 2007; Yahner, Dank, Zweig, & Lachman, 2015). The co-occurrence of different forms of victimization may be attributable to shared causal risk factors, such as a dysfunctional family, parental discord, childhood trauma, economic deprivation, and neighborhood violence, all of which were beyond the scope of this study (e.g., Clark et al., 2014; Goodman, Smyth, Borges, & Singer, 2009; Paat & Markham, 2019; Reyes et al., 2015).

We also found that the co-occurrence of each type of victimization at Wave 2 was maintained, even after controlling for each type of victimization at Wave 1. This implies that the durable effect on victimization predicted by variables in the models prevails, irrespective of the baseline level of violence. This finding also suggests several critical propositions. First, the effect of teen dating violence can be additive/cumulative or acute. Second, violence can have an enduring effect if it is not stopped immediately. This is in line with longitudinal studies that have consistently shown that adults with a past history of victimization were significantly more likely to be victimized later in life and by more than one form of victimization (Clark et al., 2014; Paat & Markham, 2019; Spriggs, Halpern, & Martin, 2009). Nevertheless, it is critical to point out that not all earlier experiences with dating violence victimization worsened or persisted overtime. Contrary to our predictions, we found several exceptions in our study. For instance, respondents' earlier victimization experience with emotional abuse was negatively related to their subsequent experience with

physical abuse (Model 2). Similarly, their physical violence victimization encountered at Wave 1 decreased the incidence of emotional abuse at Wave 2 (Model 4). Lastly, we also found that respondents who experienced emotional abuse at Wave 1 were less likely to encounter imposed isolation from a dating partner at Wave 2 (Model 6). We speculate that the acknowledgment of victimization at an earlier time point followed by perhaps an early intervention may have helped some respondents become cognizant of their relational red flags; thus alleviating the progression of an abusive relationship or preventing the development of a new unhealthy relationship.

Regarding family factors, we did not find substantial statistically significant effects on victimization, with the exception that greater openness with parents was associated with increased occurrence of emotional abuse at Wave 1. Although contradictory to our initial postulation, there may be plausible explanations. One possible scenario, disclosure of dating abuse might have invited adult interference, parents' over-interference or inappropriate intervention may backfire, deteriorate the dyads' relational quality and/or pose a threat to the stability of the young couple's relationship, causing teens to be more belligerent toward each other even if the intervention minimizes the risk for potential physical violence. Given the cross-sectional nature of the data, it is also possible that teens who are experiencing emotional abuse in a dating relationship might talk more openly with their parent in order to help them handle the situation.

Socio-psychologists have long postulated that attitudes derived from beliefs and cognition can shape one's behavior (e.g., Ajzen, 2002; Benjamin et al., 2011). By this reasoning, respondents' attitudes could serve as antecedents for their behavior partly because beliefs of an undesirable trait may be adopted as a rationale to justify any negative affect. We found that, when respondents held the belief that it is okay to hit a girlfriend, they were more likely to experience physical violence victimization (Models 1 and 2). These associations remained statistically significant in both waves. Similarly, those who held the belief that it is okay to use violence to control a boyfriend's behavior were more likely to report experiencing emotional abuse. The discrepancies in dating violence victimization outcomes might be attributable to the sexual double standard of gender treatment and perceptions of physiological differences (i.e., genetically, women are typically smaller compared to men), making perpetuating violence on women to be easier or more "acceptable" than on men.

In a similar fashion, when respondents believed that it is okay to date more than one person, they were more susceptible to emotional abuse (i.e., being subjected to false accusations, threats, insults, and hostility)(Model 3). We speculate that respondents' failure to date exclusively might open up more opportunities for discord, especially if one partner demanded deeper commitment, responsibilities, or investment. This also applies to respondents who believed that it was acceptable to have sexual intercourse outside of a romantic context. Nevertheless, these effects were statistically significant only at Wave 1, losing their statistical significance at Wave 2 (Models 3 and 4). Granted, sex increases emotional attachment, but the absence of psycho-emotional dependency between respondents and their sexual partner might decrease their relational satisfaction, thus putting the respondents at greater risk for emotional abuse.

Contrary to our initial postulation, we found that the respondent's victimization experience did not increase with greater sexual partner acquisition; rather, it exerted the opposite effect, in particular, on their experience with physical violence victimization at Wave 1 (Model 1). Although dating violence may occur in an intimate relationship of any nature, we suspected that relationships that are more transient (e.g., of a shorter duration) may have a lower incidence of violence perhaps due to lower interaction, contact, or commitment. Further, we found that the respondents who engaged in delinquent activities were more at risk of physical violence victimization at Wave 1 (Model 1), attesting to the study findings that dating relationships characterized by high levels of delinquent activities are often violent in nature (National Institute of Justice, 2015).

The evidence that substance use is linked to an increased risk for dating violence is equivocal (e.g., Exner-Cortens et al., 2013; Miller, 2017; Van Ouytsel et al., 2017), particularly when considering that the causal order for the association is not always clear, as many studies were cross-sectional (Temple et al., 2013). In our study, we found that substance use was associated with physical violence and emotional abuse at Wave 1 but not Wave 2 (Models 1 and 3). Several plausible explanations may elucidate these empirical links. First, consumption of illicit substances might increase the respondents' odds of meeting someone alike in their dating pool and socialization circle, which might create a romantic context conducive to violence (Cauffman et al., 2008). Second, substance use has been linked to a range of behavioral and health challenges that impede relationship progression and stability (e.g., National Judicial Education Program, 2015; Reyes et al., 2015). In particular, alcohol or illicit drug use may predispose a dating partner under the influence to aggressive behaviors or negative emotions, making the other party more susceptible to the negative effects of drug use (e.g., unsafe sexual practices, sexual or physical assault). This is consistent with findings from a broad array of studies that investigate the empirical role of substance use as a facilitative agent in intimate partner violence (e.g., Capaldi, Knoble, Shortt, & Kim, 2012; Soper, 2014). On the other side, exposure to physically abusive relationships may make one more likely to turn to substances (e.g., alcohol, drugs) to deal with the pain (Parker & Bradshaw, 2015). The fact that drug use reduced the likelihood of imposed isolation at Wave 1 only (Model 5) deserves further investigation, as a combination of factors may account for a teen's rationale for drug use (e.g., peer pressure, environmental context, stress, opportunity/access, genetic predisposition) that may never progress into substance addiction (Dick & Agrawal, 2008; MedlinePlus, 2018; National Institute on Drug Abuse, 2014).

Although no teens of any racial/ethnic classification are immune from teen dating violence, there is empirical evidence that racial/ethnic minority youths are disproportionately affected by dating violence victimization (Stockman, Hayashi, & Campbell, 2015). Thus far, the literature on intimate partner violence among Hispanic youths and adults is mixed. On the one hand, traditional Hispanic gender norms have been listed as a risk factor that increases the propensity for violence in highly gender-stratified Hispanic communities. On the other hand, close-knit Hispanic communities and strong social support have been cited as a buffer for violence (Cummings et al., 2013). We found that being Hispanic may offer a protective effect against experiencing imposed isolation; however, being Black increased the propensity for experiencing physical violence. The latter outcome is consistent with previous studies

that indicate that African American youths experience teen dating violence victimization at a rate that is double that of their White counterparts (7%–7.6% vs. 12.2%–14%)(CDC, 2006; Luo, Stone, & Tharp, 2014). Several factors that may place Black teens at risk for dating violence include, but are not limited to, socioeconomic disadvantage, neighborhood poverty, community violence, and racism (Black et al., 2015; Henry & Zeytinoglu, 2012).

With respect to the moderating effect of gender, we found that females are more susceptible to substance use and engagement in child delinquency compared to their male counterparts. Several postulations are plausible. First, criminology scholars have long noted the gender discrepancies in their developmental pathway to crime and victimization with females more systematically disadvantaged and subjected to more victimization in a patriarchal-focused society (Chesney-Lind & Shelden, 2014; Groot, 2010; Zahn et al., 2010). Second, females' smaller physiological attributes place them at greater risk for violence and injuries from relational violence. Next, given that females are often socialized to be more interpersonally oriented than their male counterparts, we anticipate that they might bear more emotional cost in their dating relationship and become more prone to the influence of the quality of their dating partner.

Implications for Practice

To limit the serious adverse health outcomes associated with teen dating violence, it is critical that practitioners working with youths are effectively equipped to screen for and prevent dating violence. In constructing their healthcare screening tools, it is critical that healthcare providers integrate questions that are relevant to teens' dating relationships, relationship safety, and understanding of what constitutes dating violence (Cutter-Wilson & Richmond, 2011). Because dating attitudes play a key role in shaping teens' courtship behaviors, health practitioners should provide educational materials or brief interventions that help teens foster healthy attitudes/values in dating and develop a sense of responsibility/control over their behaviors.

A focus on gender norms and dating attitudes, in particular, is integral to preventing dating violence (e.g., Reed, Silverman, Raj, Decker, & Miller, 2011; Reyes, Foshee, Niolon, Reidy, & Hall, 2016). To alter existing gender attitudes that are unhealthy or destructive and to build positive self-identity, school practitioners should increase awareness about gender norm socialization and promote gender-equitable attitudes as early as elementary and middle school through peer support groups that can educate teens that both genders can be susceptible to dating violence. There is evidence that raising awareness and enhancing knowledge about healthy dating relationships can help reduce violence-tolerant attitudes (Antle, Sullivan, Dryden, Karam, & Barbee, 2011).

Students should be educated on healthy sexual boundaries, behavioral risk factors, and conflict resolution skills through evidence- and community-based approaches that focus on teens' environmental context. For example, *Me and You: Building Healthy Relationships*, a multilevel curriculum for sixth grade students based on the socio-ecological model and social cognitive theory, has been shown to have a positive impact on attitudes and norms related to dating violence, increase conflict resolution skills, and significantly reduce dating violence victimization and perpetration (Peskin et al., 2017, 2019). Parents also may

benefit from education on how to recognize the signs of dating violence and to engage in meaningful communication. Specifically, parents need guidance on how to provide support following their teen's disclosure of abuse, intervene to ensure their teen's safety, and help them break the cycle of abuse so that teens' openness with their parents about their personal dating experience does not backfire and invite more violence.

Study Limitations

This study provides a preliminary understanding of how family factors, dating attitudes, and risky behaviors may combine to influence teens' experience with dating violence. A number of limitations should be noted. First, several studies indicate that sexual gender minority youths are at increased risk for teen dating violence victimization (e.g., Dank, Lachman, Zweig, & Yahner, 2014; Gillum, 2017). Our study, however, did not differentiate the respondents' experiences based on their sexual identity or orientation, as the structure of the questionnaire made it challenging to parcel out the respondents' sexual orientation. It is possible that sexual gender minority youths may face different risk and protective factors in a romantic and social context (Canadian Paediatric Society, 2008). Although our study attempted to establish the temporal order of events by using data collected at two time points, the associations between the variables at Wave 1 were assessed only cross-sectionally. Finally, our study relied on self-reported data and, thus, was subjected to social desirability and recall biases. Despite these limitations, our attempts to develop a model using a nationally representative dataset allowed us to develop a preliminary understanding of the developmental and environmental context in which different types of dating violence victimization co-occur. These findings may guide the development of more holistic dating violence prevention interventions that integrate developmental and contextual risk and protective factors.

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TABLE 1.

Descriptive Statistics of Variables in Analyses

Constructs	Min	Max	M	SD	Items	Prevalence		Chronicity		t test	Response format	Alpha
						wave 1	wave 2	wave 1	wave 2			
Dependent variables												
Physical violence					1. [Partner] threw something at you	5.837	6.042	1.078	1.094	0.471	4-point response scale ("Never" to "Often")	
					2. [Partner] kicked, hit, or punched you	4.167	5.105	1.052	1.087	1.575		
					3. [Partner] slapped you or pulled your hair	5.547	6.306	1.077	1.105	0.830		
					4. [Partner] threatened to hurt you	2.611	5.422	1.038	1.084	1.609		
					5. [Partner] threatened to hit you or throw something at you	3.681	7.808	1.051	1.132	2.846**		
					6. [Partner] pushed, shoved, or shook you	5.077	7.229	1.069	1.114	0.970		
					7. [Partner] choked you	1.376	2.703	1.020	1.054	1.738		
	W ₁	7	24	7.379	1.537							0.87
	W ₂	7	26	7.678	2.554							0.94
Emotional abuse					1. [Partner] did something to make you feel jealous	34.404	33.333	1.472	1.474	0.466	4-point response scale ("Never" to "Often")	
					2. [Partner] brought up something bad you had done in the past	23.124	22.222	1.314	1.333	0.290		
					3. [Partner] said things just to make you angry	25.653	33.735	1.350	1.467	2.583**		
					4. [Partner] spoke to you in a hostile or mean tone of voice	17.945	26.888	1.236	1.341	2.626**		
					5. [Partner] insulted you with putdowns	12.519	15.916	1.165	1.225	1.559		
					6. [Partner] kept track of who you were with and where you were	29.430	27.492	1.441	1.447	-0.423		
					7. [Partner] blamed you for the problem	25.000	28.916	1.347	1.410	1.086		
					8. [Partner] accused you of flirting with another girl or guy	29.358	29.429	1.427	1.435	0.270		
					9. [Partner] threatened to end the relationship	21.352	25.826	1.296	1.369	1.567		
	W ₁	9	31	12.022	4.284							0.89
	W ₂	9	36	12.506	4.928							0.91
Imposed isolation					1. [Partner] tried to turn your friends against you	7.231	8.133	1.097	1.120	0.585	4-point response scale ("Never" to "Often")	

Constructs	Min	Max	M	SD	Items	Prevalence	Chronicity	t test	Response format	Alpha
					2. [Partner] said things to your friends about you to turn them against you	7.242	1.096	1.133		1.084
					3. [Partner] spread rumors about you	8.397	1.105	1.193		2.241*
Family variables										
Openness with parents w ₁	W ₁ 3	11	3.303	0.978	Which of the following things have you done with your parent or another adult in your home in the past four weeks?					0.83
	W ₂ 3	12	3.448	1.343						0.87
	0	4	2.863	1.130	1. Have you talked about someone you're dating, or a party you went to?				"Yes" or "No"	NA
					2. Have you had a talk about a personal problem you were having?					
					3. Have you talked about your school work or grades?					
					4. Have you talked through a situation that was making you angry or upset?					
Parents know whereabouts, w ₁	0	1	0.649	0.477	Do your parents usually know where you are when you are out on a date?				1 = "Always" 0 = "Sometimes," and "Never"	NA
Dating attitudes										
Violence against boyfriend, w ₁	4	16	6.125	2.715	It is OK for someone to hit their boyfriend ...				4-point response scale ("Strongly Disagree" to "Strongly Agree")	0.90
					1. because he made her or him mad					
					2. because he insulted her or him in front of friends					
					3. because he made her or him jealous on purpose					
					4. because he was cheating					
Violence against girlfriend, w ₁	4	16	4.986	1.939	It is OK for someone to hit their girlfriend ...				4-point response scale ("Strongly Disagree" to "Strongly Agree")	0.95
					1. because she made him or her mad.					
					2. because she made him or her mad.					
					3. because she made him or her jealous on purpose					
					4. because she was cheating					

Constructs	Min	Max	M	SD	Items	Prevalence	Chronicity	t test	Response format	Alpha
Ok to date more than one person, w_1	0	1	0.182	0.386	It's OK to date more than one person at a time.				1 = "Agree" and "Strongly Agree"	NA
Ok to have sex with someone you don't love, w_1	0	1	0.200	0.400	It's OK to have sex with someone you don't love.				0 = "Disagree" and "Strongly Disagree" 1 = "Agree" and "Strongly Agree"	NA
Behavioral variables										
Number of sexual partners, w_1	0	10	0.511	1.272	Have you ever had sexual intercourse?				If "No" then coded 0	NA
Engaged in delinquency, w_1	5	13	5.336	0.980	With how many people have you ever had sexual intercourse? In the past 12 months, how often did you... 1. Deliberately damage property that didn't belong to you (including painting graffiti or signs)? 2. Run away from home? 3. Steal something worth more than \$50? 4. Sell marijuana or other drugs? 5. Steal something worth less than \$50?				Number of sexual partners "Never," "Once," and "More than once"	0.66
Substance use, w_1	4	20	5.338	2.702	In the last year, how many times have you... 1. Drank beer (more than a sip or taste) or drank wine or wine coolers (more than a sip or taste), or drank liquor (like whiskey or gin)? 2. Smoked cigarettes? 3. Been drunk? 4. Used marijuana or weed (like pot, hash, or reefer)?				5-point scale ("Never" to "10 or more times")	0.81
Socio-demographic variables										
Race	0	1	0.594	0.491	Respondents' racial classification Respondent is White				White or non-White	NA NA

Constructs	Min	Max	M	SD	Items	Prevalence	Chronicity	t test	Response format	Alpha
Black	0	1	0.078	0.268	Respondent is Black				Black or non-Black	NA
Hispanic	0	1	0.235	0.424	Respondent is Hispanic				Hispanic or Non-Hispanic	NA
Other	0	1	0.093	0.291	Respondent belongs to other racial classifications not mentioned above				Other or non-other	NA
Male	0	1	0.508	0.500	Are you male or female?				1 = "Male"; 0 = "Female"	NA

TABLE 2.
Multiple Regression Analyses with Dating Violence Victimization as the Dependent Variables

Variables	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6	
	Physical Violence, w_1 b (SE)	Physical Violence, w_2 b (SE)	Physical Violence, w_1 b (SE)	Emotional Abuse, w_1 b (SE)	Emotional Abuse, w_2 b (SE)	Emotional Abuse, w_1 b (SE)	Emotional Abuse, w_2 b (SE)	Emotional Abuse, w_2 b (SE)	Imposed Isolation, w_1 b (SE)	Imposed Isolation, w_2 b (SE)	Imposed Isolation, w_1 b (SE)	Imposed Isolation, w_2 b (SE)
Intercept	2.790 (0.380)***	0.312 (0.869)	-3.768 (0.976)***	3.848 (1.494)*	1.518 (0.248)***	-0.998 (0.414)*						
<i>Dating violence variables, w_2</i>												
Physical violence				0.636 (0.089)***		0.053 (0.027)*						
Emotional abuse		0.214 (0.030)***										
Imposed isolation		0.230 (0.115)*		1.696 (0.178)***		0.133 (0.014)***						
<i>Dating violence variables, w_1</i>												
Physical violence	0.501 (0.084)***	0.855 (0.094)***	-0.768 (0.148)***	0.099 (0.026)***	0.234 (0.041)***							
Emotional abuse	0.136 (0.015)***	-0.110 (0.039)**	0.473 (0.063)***	0.113 (0.009)***	-0.095 (0.019)***							
Imposed isolation	0.234 (0.061)***	0.079 (0.135)	1.686 (0.141)***	-0.319 (0.246)	0.414 (0.063)***							
<i>Family variables, w_1</i>												
Openness with parents	0.025 (0.046)	-0.047 (0.100)	0.277 (0.114)*	0.062 (0.173)	0.005 (0.030)							
Parents know whereabouts	0.024 (0.113)	0.173 (0.244)	-0.083 (0.285)	-0.106 (0.427)	-0.073 (0.119)							
<i>Dating attitudes, w_1</i>												
Violence against boyfriend	-0.032 (0.024)	-0.090 (0.053)	0.211 (0.063)**	0.006 (0.090)	0.000 (0.017)							
Violence against girlfriend	0.154 (0.034)***	0.179 (0.077)*	-0.129 (0.088)	-0.121 (0.134)	0.012 (0.023)							
Ok to date more than one person	-0.067 (0.132)	0.558 (0.291)	0.690 (0.334)*	-0.711 (0.504)	0.007 (0.086)							
Ok to have sex with someone you don't love	0.015 (0.141)	0.094 (0.291)	0.732 (0.356)*	0.670 (0.504)	-0.050 (0.090)							
<i>Risky behavior variables, w_1</i>												
Number of sexual partners	-0.146 (0.047)**	0.051 (0.110)	0.207 (0.116)	-0.027 (0.188)	0.018 (0.030)							
Engaged in delinquency	0.232 (0.055)***	0.100 (0.119)	0.252 (0.142)	-0.126 (0.206)	0.061 (0.035)							
Substance use	0.056 (0.021)**	0.018 (0.050)	0.162 (0.054)**	0.105 (0.086)	0.001 (0.014)*							
<i>Socio-demographic variables</i>												
Race												

Variables	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6	
	Physical Violence, w ₁	Physical Violence, w ₂	Emotional Abuse, w ₁	Emotional Abuse, w ₂	Emotional Abuse, w ₁	Emotional Abuse, w ₂	Emotional Abuse, w ₁	Emotional Abuse, w ₂	Imposed Isolation, w ₁	Imposed Isolation, w ₂	Imposed Isolation, w ₁	Imposed Isolation, w ₂
	b	(SE)	b	(SE)	b	(SE)	b	(SE)	b	(SE)	b	(SE)
Black	0.343	(0.192)	1.120	(0.489)*	-0.334	(0.489)	-0.278	(0.835)	0.125	(0.126)	-0.117	(0.233)
Hispanic	-0.036	(0.122)	0.074	(0.265)	0.534	(0.307)	0.223	(0.458)	-0.176	(0.079)*	0.048	(0.127)
Other	0.155	(0.177)	0.158	(0.339)	-0.131	(0.440)	-0.379	(0.585)	-0.115	(0.114)	0.188	(0.163)
Male	0.104	(0.102)	0.079	(0.215)	-0.366	(0.255)	-0.642	(0.371)	0.066	(0.065)	0.039	(0.104)
R-Squared	0.364		0.461		0.477		0.574		0.334		0.547	

Note. b = unstandardized coefficients; SE = standard errors. This table presents regression models with unstandardized coefficients and standard errors. Standard errors are in parentheses. N = 795.

* p < 0.05,

** p < 0.01,

*** p < .001 for b's.

Source: The National Survey of Teen Relationships and Intimate Violence (STRiV).

TABLE 3.

Multiple Regression Analyses with Each Gender in the Model (Only Statistically Significant Results are Presented)

	Male		Female		Z Test
	<i>b</i>	(SE)	<i>b</i>	(SE)	
<i>Model 1: Physical violence, w₁</i>					
Violence against girlfriend	0.059	(0.050)	0.243	(0.047)***	-2.666**
Substance use	-0.008	(0.030)	0.120	(0.031)***	-2.972**
<i>Model 3: Emotional abuse, w₁</i>					
Violence against girlfriend	0.187	(0.120)	-0.501	(0.128)***	3.922***
Engaged in delinquency	0.050	(0.166)	0.752	(0.247)**	-2.360*
<i>Model 4: Emotional abuse, w₂</i>					
Physical violence, w ₁	-0.398	(0.261)	-1.033	(0.192)***	1.962*
<i>Model 6: Imposed isolation, w₂</i>					
Physical violence, w ₂	0.025	(0.032)	0.121	(0.044)**	-2.189*
Emotional abuse, w ₁	-0.141	(0.028)**	-0.045	(0.024)	-4.090***

* $p < 0.05$,

** $p < 0.01$,

*** $p < .001$ for *b*'s.