

AN EXPLORATORY STUDY OF TEEN DATING VIOLENCE IN SEXUAL MINORITY
YOUTH

A Dissertation
Presented to
The Faculty of the Department
of Psychology
University of Houston

In Partial Fulfillment
Of the Requirements for the Degree of
Doctor of Philosophy

By
Tyson R. Reuter
April, 2015

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Abstract

Objective: Teen dating violence (TDV) is a significant public health problem in adolescence with high prevalence and serious consequences. Despite advances in identification of risk factors, prevention efforts, and intervention, the TDV literature has overwhelmingly used samples that do not assess sexual orientation or assume heterosexuality. Although a few studies have explicitly examined TDV among sexual minorities in adolescents, methodological issues limit the generalizability of these findings, and no study to date has examined patterns of dating violence over time in sexual minority youth. *Method:* An ethnically diverse sample of 782 adolescents completed self-report measures of dating violence, hostility, substance use, exposure to interparental violence, and sexual orientation. *Results:* Sexual minority adolescents reported higher rates of both TDV perpetration and victimization, and this finding persisted across two years for perpetration, but not victimization. Findings also revealed that traditional risk factors of TDV (i.e. substance use, exposure to interparental violence) were not associated with TDV for sexual minority youth, though sexual orientation itself emerged as a risk factor over and above covariates when considering severe (i.e. physical and sexual) dating violence perpetration. *Conclusions:* Sexual minorities may be at a greater risk for TDV than their heterosexual peers. Findings are discussed within the context of a minority stress model. Future research is needed to parse out factors specifically related to sexual orientation from a stressful or invalidating environment.

Keywords: adolescence, bisexual, gay, lesbian, sexual minorities, teen dating violence

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Introduction

Importance of the Problem

Teen dating violence (TDV) represents a serious public health problem (Center for Disease Control and Prevention, 2012). Both cross-sectional and a growing, albeit limited, number of longitudinal studies have demonstrated that TDV is associated with a host of physical and emotional consequences (Exner-Cortens, Eckenrode, & Rothman, 2013; Silverman, Raj, Mucci, & Hathaway, 2001). Depending on the population examined and how narrow the construct is defined, prevalence rates vary considerably. When constrained to physical and sexual violence, intimidation, and coercion, an estimated 10-20% of adolescents report having experienced TDV (Eaton, Davis, Barrios, Brener, & Noonan, 2007; Foshee et al., 2009; Shorey, Cornelius, & Bell, 2008). Rates can escalate to 50% when less physically injurious forms of abuse are considered or when examining at-risk populations (Orpinas, Nahapetyan, Song, McNicholas, & Reeves, 2012; Wolfe, Scott, Wekerle, & Pittman, 2001). For example, emerging evidence demonstrates that sexual minorities (an umbrella term that captures a diverse group of individuals who may endorse same-sex attraction, engage in same-sex sexual behavior, and/or report a gay, bisexual, lesbian, or no particular sexual orientation/identity; Cohler & Hammack, 2007) are at increased risk for TDV (Dank Lachman, Zweig, & Yahner, 2014; Hipwell et al., 2013; Martin-Storey, 2014).

The term “dating violence” generally refers to abusive behavior occurring within the context of romantic relationships and is considered to fall on a continuum of control or coercion (Wekerle & Wolfe, 1999), with more conservative definitions of TDV often confined to physical and sexual abuse (e.g. hitting, punching, forced sex), while more liberal definitions typically extend TDV to include non-physical behaviors (e.g. isolating, ridicule,

verbal threats, provoking jealousy). Importantly, both forms of abuse (i.e. physical and non-physical) are linked with depression, conflict, and physical aggression (Holt & Espelage, 2005; O’Leary & Smith Slep, 2003), with some studies finding that victims report psychological abuse as or even more damaging than physical abuse (Jouriles et al., 2009; Reeves & Orpinas, 2011).

In addition to physical injury, TDV is associated with a number of serious short and long-term emotional outcomes, including a heightened risk of internalizing and externalizing problems such as depression, anxiety, suicidal ideation, substance use, and risky sexual behavior (Rothman, Reyes, Johnson, & LaValley, 2012; Silverman et al., 2001; Temple & Freeman, 2011; Temple, Shorey, Fite, Stuart, & Le, 2013a; Wolitzky-Taylor et al., 2008). For example, using data from the Massachusetts Youth Risk Behavior Survey, Silverman et al. (2001) assessed physical and sexual dating violence victimization and associated risk factors in 1,977 9th through 12th grade females. Findings revealed that approximately 1 in 5 adolescents reported physical and/or sexual abuse by a dating partner, and that these girls were at increased risk for substance use (e.g. episodic heavy drinking, cocaine use), early sexual intercourse, pregnancy, and suicidality. Similar findings were found by Temple and Freeman (2011), who assessed TDV and substance use and found that victims of TDV were up to 4 times more likely to smoke cigarettes, use marijuana, or drink alcohol. Beyond these more immediate consequences, TDV may be a “developmental stepping stone” on the trajectory towards adult partner violence (Dank et al., 2014, p. 846), as suggested by accumulating evidence showing that perpetrators and victims of TDV are more likely to continue this maladaptive pattern of relating in future intimate relationships (Gidycz, Warkentin, & Orchowski, 2007; Gomez, 2011; White & Smith, 2009).

To understand the development of TDV, it is helpful to refer to theories of adult partner violence. Social learning theory (Bandura, 1973), for example, posits that individuals learn to behave aggressively through observational learning and modeling of others' violent behavior. Feminist theory (Dobash & Dobash, 1977), on the other hand, argues that partner violence can be explained primarily through gender inequality, rigid sex-roles, and patriarchal beliefs. Although these traditional theories have received some empirical support (Leonard & Senchak, 1996; Mihalic & Elliott, 1997; Shook, Gerrity, Jurich, & Segrist, 2000; Sims, Dodd, & Tejada, 2008), more recent etiological models have become increasingly comprehensive in scope, appreciating the heterogeneity of variables that may explain violence in the context of romantic relationships (Bell & Naugle, 2008; Bogat, Levendosky, & von Eye, 2005). This integrative framework has confirmed a broad array of correlates, cutting across demographic variables (e.g. race), personality traits (e.g. hostility), distal antecedents (e.g. exposure to interparental violence), and motivating factors (e.g. substance use). This model is perhaps advantageous over previous approaches given that there are many pathways leading to and from partner abuse.

Hostility, for example, has been consistently linked with violence in romantic relationships (Dutton, 1994; Holtzworth-Munroe, Meehan, Herron, Rehman, & Stuart, 2000). Maiuro and colleagues (1988) found that domestically violent men had higher levels of self-reported hostility and anger expression compared to men in a nonviolent control group. Meta-analytic reviews have further supported this finding, with some studies finding scores of anger expression one half a standard deviation higher in violent partners compared to nonviolent partners (Norlander & Eckhardt, 2005; Schumacher, Slep, & Heyman, 2001). Similar findings on the association between TDV and hostility have also been demonstrated

in youth (Wolfe et al., 1998; Wolfe et al., 2003). Regarding exposure to interparental violence, research has generally found that witnessing violence in one's family of origin predicts future violence in intimate relationships (Kinsfogel & Grych, 2004; Roberts, McLaughlin, Conron, & Koenen, 2011; Sims et al., 2008). One study (Wolfe et al., 1998) found that family of origin violence explained nearly 20% of the variance predicting adolescents' dating violence. Also referred to as the intergenerational transmission of violence, this theory has received relatively strong empirical support by demonstrating exposure to interparental violence predicts subsequent partner abuse, perhaps because parents' interactions provide a salient model that teaches youth ineffective strategies to resolve conflict in intimate relationships (Kinsfogel & Grych, 2004; Wolf & Foshee, 2003). Finally, the relation between substance use and partner violence has been well-documented in both adults and adolescents, with heavy alcohol use being consistently linked to poorer relationship satisfaction and greater conflict (Foshee et al., 2004; Howard & Wang, 2003; Zimmer-Gembeck, Siebenbruner, & Collins, 2004). In a meta-analytic review of 50 independent studies examining alcohol and adult partner violence, Foran and O'Leary (2008) found a strong relation between alcohol use and partner abuse for both males and females. Using a sample of 397 emergency department adolescent patients, Rothman and colleagues (2012) found a strong association between substance use and TDV perpetration.

In summary, high prevalence coupled with serious consequences has driven empirical research to successfully demonstrate a number of important factors that place adolescents at increased risk for TDV. However, despite advances in identification of risk factors, prevention efforts, and treatment, research involving sexual minority youth lags behind, in large part because the literature has traditionally utilized samples that assume heterosexuality

or fail to assess sexual orientation altogether. Although numerous studies have investigated intimate partner violence in sexual minority adults (Edwards & Sylaska, 2013; Finneran & Stephenson, 2013; Krahe & Berger, 2013; Tjaden, Thoennes, & Allison, 1999; Waldner-Haugrud & Gratch, 1997), the downward extension to sexual minority youth is more uncommon, with the bulk of empirical research – and media attention – focusing on sexual harassment, bullying, and hate crimes (e.g. D'Augelli, Pilkington, & Hershberger, 2002; King, 2013; Kosciw et al. 2011; Williams, Connolly, Pepler, Craig, 2005). While victimization in the schools and community is certainly an important topic to investigate, relatively little is known about violence that occurs within the context of sexual minority youth's romantic relationships.

A Review of the Empirical Literature of TDV in Sexual Minority Youth

The few empirical studies that have investigated TDV in non-heterosexual samples consistently find that sexual minority youth are more likely to experience TDV compared to their heterosexual counterparts (Halpern, Young, Waller, Martin, & Kupper, 2004; Hipwell et al., 2013; Martin-Storey, 2014; Porter & McQuiller-Williams, 2011). For example, in one of the first empirical studies to examine dating violence in non-heterosexual youth, Freedner, Freed, Yang, and Austin (2002) administered self-report surveys to 521 adolescents attending a lesbian, gay, bisexual, and transgender (LGBT) rally. Along with sexual orientation, they assessed five types of dating violence (control, emotional, scared for safety, physical, sexual) and found that, compared to heterosexuals, bisexual males were over three times more likely to report any form of TDV and lesbians were twice as likely to report fearing for their safety. Interestingly, bisexual adolescents were more likely than gay/lesbian adolescents to be

threatened with “outing” (i.e. exposing one’s sexual orientation to others without the individual’s consent). The finding that bisexual adolescents reported more severe outcomes is congruent with recent evidence demonstrating that individuals who identify as “bisexual” and “mostly heterosexual” have poorer mental and physical health outcomes than their heterosexual peers *and* their gay and lesbian peers, including self-injury, mood disorders, and suicidality, and are more likely to have a history of child abuse and engage in higher risk sexual behaviors (Balsam, Beauchaine, Mickey, & Rothblum, 2005; Bostwick, Boyd, Hughes, & McCabe, 2010; Marshal et al., 2013; Persson, Pfaus, & Ryder, 2014).

Similar findings were demonstrated by Luo, Stone, and Tharp (2014), who analyzed ten years of geographically diverse data from the Youth Risk Behavior Surveillance System and showed that LGB adolescents were twice as likely to report physical TDV (odds ratio [OR] = 2.46), a finding that was largely consistent across gender, age, and ethnicity. In another study examining sexual risk-taking behaviors among urban adolescents, Hipwell et al. (2013) administered measures of sexual orientation and minor physical dating violence to an ethnically diverse sample of 1,647 females. Sexual minority girls (i.e. lesbian or bisexual) reported a significantly higher rate of dating violence victimization than heterosexual girls (31% vs. 18%), though no differences in perpetration were found.

In a nationally representative sample, Halpern et al. (2004) analyzed data on a subset of 117 adolescents who reported exclusively same-sex intimate relationships within the past 18 months. Using the Conflict Tactics Scale (Straus, 1979), these authors found that one fourth of adolescents had experienced any violence victimization (i.e. psychological or physical), and one tenth had experienced physical victimization. Further, males reporting exclusively same-sex intimate relationships were less likely than females to report

experiencing any violence victimization. Questions regarding perpetration of violence were not included in the study. In a regionally representative sample, Martin-Storey (2014) examined data on a subset of youth ages 14–18 using the Massachusetts Youth Risk Behavior Survey, with 540 girls and 323 boys reporting a non-heterosexual identity. Dating violence was assessed using the following question: “Have you ever been hurt physically or sexually by a date or someone you were going out with? This might include being hurt by being shoved, slapped, hit or forced into any sexual activity.” Responses were then collapsed into “hurt by a date” or “not hurt.” Results showed a higher prevalence of dating violence among those with a non-heterosexual identity compared to heterosexual peers, and these findings remained largely significant after controlling for risk factors (e.g. peer victimization, binge drinking, number of sexual partners).

Finally, using a regionally representative sample of 3,754 12-19 year old students (74% White, 6% LGBT), Dank et al. (2014) compared sexual minority youth to heterosexual youth on the prevalence of TDV perpetration and victimization and risk of physical TDV victimization. Results showed that sexual minority youth, in particular transgender youth and females, were at higher risk for all forms of TDV victimization (e.g. physical, psychological, cyber, sexual coercion) and almost all forms of TDV perpetration. Regarding risk factors, sexual minority youth who were victims of physical dating violence were more likely to be female, transgender, have elevated depression scores, poorer academic achievement, and previous sexual activity. Although addressing many of the methodological limitations of previous research on this topic, this study was limited by having a predominantly White sample, cross-sectional design, and a very low percentage of adolescents identifying as

“lesbian” (.4% of sample) or “gay” (.1% of sample), thus restricting the generalizability of these findings, particularly to lesbian and gay adolescents.

Despite the important contributions made from previous studies on a historically understudied area, research on dating violence in sexual minority youth remains in its infancy, with numerous authors calling attention to the desperate need for well-controlled, longitudinal studies that match the methodological rigor of research using predominately heterosexual populations (Burke & Follingstad; Dank et al., 2014). Unfortunately, previous research on this topic often lacks a comparison group of heterosexual adolescents, are qualitative or quasi-empirical in nature, do not assess perpetration of violence, are cross-sectional, measure dating violence through a single item, utilize a behavioral criterion to define sexual orientation (e.g. has the participant dated a same-sex partner), lack ethnic diversity, study one gender exclusively, and/or recruit subjects through samples of convenience (e.g. gay and lesbian organizations, bars, rallies). To our knowledge, no single study has addressed all of these limitations. For example, exclusively dating individuals of the same-sex may not necessarily entail having a gay or lesbian sexual orientation, and such a method excludes individuals who date both sexes. Further, data collected through convenience may not generalize to sexual minority youth as a whole. Finally, assessing dating violence via a single item likely does not capture and differentiate multiple forms of violence (e.g. psychological, physical, sexual, relational). Beyond confirming that sexual minority youth report higher rates of TDV compared to heterosexual youth, it is important for research to further unpack this finding and explore associated outcomes. As previous authors have pointed out (Luo et al., 2014), it remains unclear whether traditional correlates of TDV derived from heterosexual samples are relevant to sexual minority youth. Taken

together, perhaps the most challenging methodological barrier to overcome is obtaining a representative sample that allows for meaningful comparisons between sexual minority youth and heterosexual adolescents (Halpern et al., 2004).

Purpose of the Present Study

Against this background, the first aim of the present study is to identify the prevalence of TDV perpetration and victimization in sexual minority youth using a large, geographically and ethnically diverse community sample of adolescents. The second aim is to compare rates of TDV perpetration and victimization among sexual minority youth to heterosexual adolescents. The third aim is to explore rates of TDV perpetration and victimization within specific subgroups of sexual minorities (i.e. lesbian, gay, bisexual). The fourth aim is to explore whether similar risk factors (i.e. hostility, exposure to interparental violence, substance use) of TDV perpetration and victimization derived from heterosexual samples are relevant to sexual minorities and whether sexual orientation will emerge as a predictor of TDV over and above these risk factors. Finally, the fifth aim is to examine whether sexual orientation explains the persistence of TDV perpetration and victimization across baseline and two year follow up.

As etiological models of TDV become increasingly comprehensive in scope, recognizing the breadth of risk factors which may explain aggressive and abusive behaviors between partners (Bell & Naugle, 2008), research has confirmed key variables to have significant associations with TDV, including hostility (Wolfe et al., 2003), exposure to interparental violence (Roberts et al., 2011; Temple, Shorey, Tortolero, Wolfe, & Stuart, 2013b), and substance use (Stuart et al., 2008; Temple et al., 2013a). These variables will

therefore be controlled for in regression analyses. Further, given that few studies include violence perpetration in addition to victimization, and given the evidence suggesting these two forms of violence occur together (Malik et al., 1997), both TDV perpetration and victimization will be investigated. Finally, as no study to date has investigated TDV over time in sexual minority youth, changes in TDV perpetration and victimization between baseline and two year follow will be examined for sexual minority adolescents and heterosexual adolescents.

Guided by findings from the adult literature examining intimate partner violence in sexual minority adults and emerging evidence from the TDV literature involving sexual minority youth, we hypothesize the following:

H1: TDV perpetration and victimization will be higher in sexual minority adolescents compared to heterosexual adolescents.

H2: TDV perpetration and victimization will be higher in bisexual adolescents compared to lesbian and gay adolescents.

H3: Hostility, exposure to interparental violence, and substance use will remain important risk factors regardless of sexual orientation.

H4: Sexual orientation will make unique contributions to TDV perpetration and victimization while controlling for covariates (i.e. hostility, exposure to interparental violence, and substance use).

H5: TDV perpetration and victimization will be more elevated and persistent across 2 years of follow-up in sexual minority adolescents compared to their heterosexual counterparts.

Methods

Participants

Data for the present study is part of an ongoing school-based longitudinal study investigating the risk and protective factors of TDV (Temple et al., 2013a). Participants were recruited from seven schools in five Houston-area school districts. Only students reporting a history of dating at two year follow up (i.e. endorsed the item “I have begun dating, going out with someone, or had a boyfriend/girlfriend”) were included in current analyses (n = 782; 56.8% male). Average age at two year follow up was 17.06 years (SD = .77). The sample was ethnically diverse, with 32.5% identifying as Hispanic, 31.2% as White, 26.0% as Black, 2.3% as Asian, and 8.1% as mixed or “other.”

Measures

Teen Dating Violence. The Conflict in Adolescent Dating and Relationship Inventory (CADRI; Wolfe et al., 2001) is a 50-item measure that assesses TDV perpetration and victimization (e.g. physical, psychological, sexual, and relational). Each question is divided into two parts, one which indicates perpetration (e.g. “I threw something at him/her”) and one which indicates victimization (“He/she threw something at me”). Using binary responses (i.e. yes = 1, no = 0), participants chose whether or not they perpetrated and/or were victimized by an act during a conflict or argument with their boyfriend/girlfriend (ex-boyfriend/ex-girlfriend) in the past year. Summary scores for the perpetration and victimization scales were calculated dimensionally (i.e. adding total number of “yes” responses for each scale). Internal consistency for the CADRI ranges from acceptable to strong, with Wolfe et al. (2001) reporting a Cronbach’s alpha of .76 for the physical abuse

subscales, .81 for the verbal and emotional abuse subscale, and .83 for the total abuse scale. Alphas for the current study were .88, .90, and .92, respectively.

Sexual Orientation. Adolescents were asked how they identify their sexual orientation by choosing one of the following: “completely heterosexual,” “mostly heterosexual,” “bisexual,” “mostly homosexual,” “completely homosexual,” and “not sure.” Those who identified as “completely heterosexual” were grouped as heterosexual and those who identified as “mostly heterosexual,” “bisexual,” “mostly homosexual,” “completely homosexual,” and “not sure” were grouped as sexual minorities. In addition to distinguishing two groups (i.e. heterosexual youth and sexual minority youth), sexual orientation was used categorically as an independent variable in regression analyses.

Hostility. Hostility was assessed through the use of the hostility subscale from the Symptom Check List (SCL-90; Derogatis, Lipman, Rickels, Uhlenhuth, & Covi, 1974). The SCL-90 is a 90-item self-report measure that identifies ten clinical subscales, including somatization, obsessive-compulsive, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation, psychoticism, and sleep difficulty (Lipman, Covi, & Shapiro, 1979). Due to time constraints, only the hostility subscale was included in the present study. This subscale identifies feelings and behaviors that are characteristic of anger, including aggression, irritability, rage, and resentment (Derogatis, Rickels, & Rock, 1976). A summary score was used dimensionally as an independent variable in regression analyses. Internal consistency for the subscale has been demonstrated to be adequate, with Derogatis et al. (1976) reporting a Cronbach’s alpha of .84. Alpha for the current study was .84.

Substance Use. Methods used to assess substance use were adapted from the “Monitor the Future Surveys,” a series of large, ongoing studies that have assessed the

behaviors and attitudes of high school students since 1975 (Johnston, O'Malley, Bachman, & Schulenberg, 2010). A standard set of three questions were used to assess use of alcohol ("more than just a few sips"), cigarettes ("more than just a puff"), marijuana, inhalants, ecstasy, and prescription drugs not prescribed by a health professional. For example, participants were asked the number of occasions (if any) they used alcohol a) in their lifetime, b) during the past 12 months, and c) during the last 30 days. Participants were provided with examples of inhalants (e.g. sniffed glue) and prescription drugs (e.g. Xanax, Oxycontin, Ritalin). Alcohol use was operationalized as total number of days out of the past 30 that the participant engaged in episodic heavy drinking, which was used dimensionally as an independent variable in regression analyses. Marijuana use was operationalized as total number of days out of the past 30 that the participant smoked marijuana and was also used dimensionally as an independent variable in regression analyses. Previous research on adolescents has generally found that they are reliable and valid sources for reporting their substance use behaviors (Johnston et al., 2010).

Exposure to Interparental Violence. Father-to-mother and mother-to-father interparental violence was assessed by asking the following: "In the past year, how many times did your father (or male caregiver) do any of the above behaviors to your mother (or female caregiver)?" The same question was then asked for mother-to-father violence. Participants were provided with examples of moderate to severe violent acts (e.g. pushed, grabbed, or shoved; slammed against wall; choked) and then asked to report the number of times they have witnessed violence using one of the following options: never (coded "0"), once or twice (coded "1"), 3-20 times (coded "2"), and more than 20 times (coded "3"). This variable was used dimensionally for examining bivariate relations between main study

variables. For regression analyses, exposure to interparental violence was entered as an independent variable and coded categorically, such that participants who witnessed any father-to-mother violence at any wave were coded as “1” and those who did not were coded as “0.” The same coding was conducted for mother-to-father violence. Previous research has demonstrated single item measures to be reliable and valid when the construct is clearly defined and homogenous (Loo & Kelts, 1998; Postmes, Haslam, & Jans, 2013).

Procedures

This study was approved by the appropriate institutional review board. Recruitment at baseline and two year follow up occurred during school hours in classes with required attendance. Research staff attended each class twice prior to assessment to explain the study and answer questions. Information about the study, as well as parental permission slips were sent home with the students for their parents to read, sign, and return. Assent was then obtained from students who returned the forms, and those who assented were pulled from class to complete the survey. Identical measures of TDV were given at both baseline and two year follow up. Assessments at each time point occurred during school hours, and students received a \$10 gift card for participating. To increase reliability of adolescent self-report, teachers and other school administrators were not allowed to be present during questionnaire administration, and privacy was emphasized, including instructing participants not to write their names on surveys and informing them that a federal certificate of confidentiality protected their responses. The retention rate at two year follow up was 85%.

Data Analytic Strategy

For the first and second aims of exploring and comparing prevalence rates of TDV perpetration and victimization, frequencies were run on the CADRI perpetration and victimization scales for sexual minority adolescents and heterosexual adolescents. Further, as few studies have examined TDV from an intersectional perspective (Cole, 2009), it is also important to explore whether the junction of multiple identities (i.e. gender, race, sexual orientation) confers risk for TDV. Thus, to examine the intersection of race and sexual orientation on TDV perpetration and victimization, two separate univariate analysis of variance (ANOVA) were conducted with TDV entered as the dependent variable and race (Black, Latino, White, and Other) and sexual orientation (heterosexual and sexual minority) entered as fixed factors. The same strategy was used to examine the intersection of gender and sexual orientation.

For the second aim of comparing TDV perpetration and victimization rates of sexual minority adolescents to heterosexual adolescents, two separate independent samples t-tests were conducted for dimensional scores of overall TDV perpetration and TDV victimization, and Chi-square analyses were then conducted on categorical variables of experiencing any specific forms of violence (i.e. physical, psychological, sexual, and relational). This strategy tested hypothesis 1 (TDV perpetration and victimization will be higher in sexual minority adolescents compared to heterosexual adolescents).

For the third aim of exploring rates of TDV perpetration and victimization within sexual minorities, two separate independent samples t-tests were conducted to compare rates of TDV between bisexual vs. homosexual (i.e. gay or lesbian) adolescents and between male vs. female adolescents. This strategy tested hypothesis 2 (TDV perpetration and victimization will be higher in bisexual adolescents compared to lesbian and gay adolescents).

For the fourth aim of exploring correlates of TDV perpetration and victimization for sexual minorities, correlational analyses were conducted to explore bivariate relations between TDV perpetration and victimization, hostility, alcohol use, marijuana use, and exposure to interparental violence for sexual minorities in isolation. This strategy tested hypothesis 3 (Hostility, exposure to interparental violence, and substance use will remain important risk factors regardless of sexual orientation). To examine whether sexual orientation makes unique contributions to TDV perpetration and victimization over covariates, two separate linear regressions were conducted, with all main study variables (hostility, alcohol use, marijuana use, father-to-mother violence, mother-to-father violence, and sexual orientation) entered as independent variables and TDV perpetration and victimization, respectively, as dependent variables. Methods were also repeated using a more conservative definition of TDV (i.e. physical and sexual violence). This strategy tested hypothesis 4 (Sexual orientation will make unique contributions to TDV perpetration and victimization while controlling for covariates). Analyses for the first four aims used data from two year follow up.

Finally, for the fifth aim of investigating whether sexual orientation explains the persistence of TDV perpetration and victimization across time (i.e. baseline and two year follow up), two repeated measures ANOVA were conducted with baseline and two year follow up TDV as the within subjects variable and sexual minority status as the between subjects variable. This strategy tested hypothesis 5 (TDV perpetration and victimization will be more elevated and persistent across the two time points in sexual minority adolescents compared to heterosexual adolescents).

Results

Descriptive Statistics and Missing Data

Power analyses were conducted using G*Power 3 (Faul, Erdfelder, Buchner, & Lang, 2009). A previous study (O’Leary et al., 1989) found a correlation of physical aggression between spouses over 30 months to be .59 for men and .72 for women. Thus, a sample size of 104 was calculated and determined to be sufficient for the present study’s analyses based on a power level of .8 and correlation among dating violence measures of .59.

To examine whether data was missing at random, differences between participants with complete data and incomplete data were examined. Chi-square analyses and independent samples t-tests showed that participants with incomplete data were not significantly different from those with complete data on gender ($\chi^2 = 2.435, p = .130$), sexual orientation ($\chi^2 = 1.351, p = .332$), alcohol use ($t = 1.479, p = .142$), father-to-mother violence ($t = 1.095, p = .276$), or mother-to-father violence ($t = 1.970, p = .052$), thus confirming that data was missing at random for these main study variables. However, data was found to be missing at non-random for race ($\chi^2 = 10.719, p = .013$) and hostility ($t = 2.057, p = .042$).

Breakdown by sexual orientation was as follows: 592 adolescents identified as “completely heterosexual,” 50 as “mostly heterosexual,” 39 as “bisexual,” 12 as “mostly homosexual,” 21 as “completely homosexual,” and 13 “not sure.” Demographic information and percentage of adolescents reporting TDV is presented in Table 1. No significant differences were found between heterosexual and sexual minority adolescents on age ($t = -.025, p = .980$). However, significant differences were found between heterosexual and sexual minority adolescents on race and gender, with a greater proportion of sexual minority adolescents identifying as “Other” (i.e. Asian, mixed, or self-identified “other”; $\chi^2 = 10.489,$

$p = .015$) and female ($\chi^2 = 16.277, p < .001$). Tables 2 summarizes means and standard deviations for main study variables, as well as the results of correlational analyses examining the bivariate relations between continuous variables separately for heterosexual and sexual minority adolescents.

Bivariate Relations between Main Study Variables

As hypothesized, sexual minority adolescents reported more overall TDV perpetration ($t = -2.110, p = .036$) and victimization ($t = -2.041, p = .043$) compared to heterosexual adolescents. Specifically, sexual minority adolescents were more likely to experience TDV, both perpetration and victimization, across all forms of violence (i.e. physical, sexual, and psychological) except relational abuse (see Table 1).

As significant heterogeneity exists within sexual minorities, differences in TDV by gender, race, and sexual orientation were explored using analysis of variance and independent samples t-tests. When examining the interaction of race and sexual orientation on TDV perpetration, results revealed a main effect on race $F(3, 713) = 2.959, p = .032$, sexual orientation, $F(1, 713) = 3.877, p = .049$, but not the interaction of race*sexual orientation $F(3, 713) = .485, p = .693$. Tukey post-hoc analyses indicated that TDV perpetration was significantly higher for Blacks adolescents ($M = 5.288$ $SD = .361$) compared to Latino adolescents ($M = 3.872, SD = .359$). When examining the interaction of race and sexual orientation on TDV victimization, results revealed a main effect on sexual orientation, $F(1, 706) = 4.103, p = .043$, but not race, $F(3, 706) = .610, p = .609$, nor the interaction of race*sexual orientation $F(3, 706) = .628, p = .598$. When examining the interaction of gender and sexual orientation on TDV perpetration, results revealed a main

effect on gender $F(1, 713) = 16.107, p < .001$, but not sexual orientation, $F(1, 713) = 2.554, p = .110$, nor the interaction of gender*sexual orientation $F(1, 713) = .277, p = .599$. When examining the interaction of gender and sexual orientation on TDV victimization, results revealed no main effect on gender, $F(1, 706) = 3.518, p = .061$, sexual orientation, $F(1, 706) = 2.768, p = .097$, nor the interaction of gender*sexual orientation $F(1, 706) = .042, p = .838$.

When examining sexual minority adolescents in isolation, bisexual adolescents reported more TDV perpetration ($t = 2.242, p = .033$), but not TDV victimization ($t = 1.679, p = .104$) compared to homosexual (i.e. gay or lesbian) adolescents. With respect to gender, sexual minority males and sexual minority females did not differ on reports of TDV perpetration ($t = 1.689, p = .095$) nor victimization ($t = 1.041, p = .302$).

Regarding risk factors of TDV, all main study variables were associated with TDV perpetration and victimization for heterosexual adolescents, including hostility, alcohol use, marijuana use, and exposure to interparental violence (father-to-mother only). However, for sexual minority adolescents, only hostility was associated with TDV perpetration and victimization (see Table 2).

The Relation between Sexual Orientation and TDV Controlling for Confounds

TDV Victimization. As shown in Table 3, after entry of all main study variables (hostility, alcohol use, marijuana use, father-to-mother violence, mother-to-father violence, and sexual orientation), the total variance explained by the model was 9.5%, $F(6, 696) = 13.157, p < .001$. Only hostility ($beta = .242, p < .001$) was statistically significant. To determine whether similar findings were demonstrated when using a more conservative definition of TDV, additional analyses were conducted with severe victimization (i.e.

combination of physical and sexual abuse subscales) as the dependent variable. The total variance explained by this model was 5.4%, $F(6, 696) = 7.646, p < .001$, with only hostility ($beta = .180, p < .001$) retaining significance.

TDV Perpetration. As shown in Table 3, after entry of all main study variables (hostility, alcohol use, marijuana use, father-to-mother violence, mother-to-father violence, and sexual orientation), the total variance explained by the model was 11.7%, $F(6, 696) = 16.324, p < .001$. Only hostility ($beta = .306, p < .001$) was statistically significant. To determine whether similar findings were demonstrated when using a more conservative definition of TDV, additional analyses were conducted with severe perpetration (i.e. combination of physical and sexual abuse subscales) as the dependent variable. The total variance explained by this model was 7.4%, $F(6, 696) = 10.268, p < .001$, with hostility ($beta = .223, p < .001$), exposure to mother-to-father violence ($beta = .089, p = .040$), and sexual orientation ($beta = .104, p = .005$) retaining significance.

Given that there are higher rates of psychopathology in both sexual minorities and perpetrators of partner violence, additional exploratory analyses were conducted to further clarify this finding and examine whether sexual orientation retained significance after controlling for symptoms of depression (CES-D 10; Radloff, 1977) and anxiety (SCARED; Birmaher et al., 1997). After entry of all main study variables (hostility, alcohol use, marijuana use, father-to-mother violence, mother-to-father violence, depression, anxiety, and sexual orientation), the total variance explained by this model was 8.1%, $F(8, 696) = 8.692, p < .001$, with hostility ($beta = .167, p < .001$) and depression ($beta = .114, p = .013$) retaining significance. The contribution of sexual orientation was attenuated, though still retained significance ($beta = .091, p = .014$).

Sexual Orientation and the Persistence of TDV

TDV Victimization. Sexual orientation was entered as the between subjects factor in the repeated measures ANOVA, with TDV victimization at baseline and two year follow up as the within subjects variable. As shown in Table 4, results showed no interaction effect for group (heterosexual vs. sexual minority) and time, *Wilks' Lambda* = 1.000, $F(1, 640) = .044$, $p = .835$, and no effect was found for time, *Wilks' Lambda* = .999, $F(1, 640) = .397$, $p = .529$. No main effect emerged in TDV victimization for heterosexual vs. sexual minority groups across both time points, though results approached significance, $F(1, 640) = 3.203$, $p = .074$.

TDV Perpetration. Sexual orientation was entered as the between subjects factor in the repeated measures ANOVA, with TDV perpetration at baseline and two year follow up as the within subjects variable. As shown in Table 4, results showed no interaction effect for group (heterosexual vs. sexual minority) and time, *Wilks' Lambda* = .998, $F(1, 655) = 1.536$, $p = .216$ and no effect was found for time, *Wilks' Lambda* = 1.000, $F(1, 655) = .051$, $p = .821$. However, tests of between subjects effects showed a main effect in TDV perpetration for heterosexual vs. sexual minority groups across both time points, $F(1, 655) = 5.189$, $p = .023$, demonstrating sexual minority adolescents sustained more stability in dating violence across two years.

Discussion

Given the serious physical and emotional consequences associated with TDV, and given the dearth of empirical literature investigating TDV in sexual minority youth, the present study sought to explore prevalence, risk factors, and patterns of TDV over time in a community sample of adolescents. Several findings merit discussion. First, sexual minorities

experienced more dating violence than their heterosexual peers, including more serious forms of abuse such as physical and sexual violence. Bisexual adolescents appear particularly at risk. Second, traditional risk factors of TDV (substance use, exposure to interparental violence) were not relevant for sexual minority youth. Third, sexual orientation emerged as a significant predictor of severe dating violence perpetration controlling for covariates. Finally, sexual minority adolescents reported more stability in TDV perpetration over time.

The finding that sexual minority youth reported more TDV is congruent with the existing literature across both adult and adolescent samples (Halpern et al., 2004; Hipwell et al., 2013; Krahe & Berger, 2013; Martin-Storey, 2014; Luo et al., 2014). However, this finding should be interpreted with caution. It is incomplete, and likely incorrect, to conclude that sexual minority youth experience higher rates of TDV solely because of their sexual orientation. Although it is well documented that sexual minorities are at increased risk for numerous physical and mental health outcomes (Case et al., 2004; Centers for Disease Control and Prevention, 2012; Mustanski, Garofalo, & Emerson, 2010), the underlying mechanism is not entirely understood.

One possible explanation with substantial empirical support is a minority stress model (DiPlacido, 1998; Meyer, 2003), which posits that the interplay between minority status and majority, dominant values results in conflict with the greater social environment, typically characterized for sexual minorities as homophobia, self-stigmatization, hostility, expectations of rejection, and/or invalidation. Ultimately, this leads to increased stress and poor mental and physical health outcomes (Dohrenwend et al., 1992; Meyer, 2003). Indeed, individuals with a non-heterosexual orientation, including youth, often experience a variety of distal and proximal interpersonal, institutional/structural, and health stressors including rejection from

friends and family, violence and victimization, lower earning wages, and increased risk of sexual transmitted disease and HIV infection (Badgett, Lau, Sears, & Ho, 2007; D'Augelli, Hershberger, & Pilkington, 1998; Halkitis, Green, & Carragher, 2006; Herek, Gillis, Cogan, & Glunt, 1997; Meyer, 2003). This framework has received substantial empirical support to help explain the disproportionate burden of health problems found in sexual minority populations (Dean et al., 2000; Mays & Cochran, 2001; Rosario, Rotheram-Borus, & Reid, 1996). Further support for this model comes from evidence demonstrating that the link between sexual orientation and deleterious health outcomes is strongly attenuated when controlling for experiences of discrimination (Mays & Cochran, 2001). Given the elevated levels of TDV found in the present study for sexual minorities across two years, it is possible that chronic experience of minority stressors over this period contributes to the persistence of partner violence. However, a minority stress model involving TDV has not been explicitly tested to date. Future research may benefit from assessment of social support, outness, and experiences of discrimination to help explain this finding.

Other researchers have argued that, in addition these to stigma-related stressors unique to sexual minorities, there are also general psychological processes, shared by both heterosexuals and sexual minorities, which influence adverse behavioral outcomes. This integrative framework posits that specific social, cognitive, and emotional processes (e.g. emotion dysregulation, social isolation) are relatively robust predictors of psychopathology, and that these processes are elevated in sexual minorities due to stigma-related stressors (Hatzenbuehler, 2009). Indeed, one study demonstrated that sexual minority adolescents, compared to their heterosexual peers, had higher levels of emotion dysregulation, which in turn accounted for higher levels of depression and anxiety (Hatzenbuehler, McLaughlin, &

Nolen-Hoeksema, 2008). Given the strong association between poor affect/emotion regulation and partner violence across adolescent and adult populations (Dutton, Saunders, Starzomski, & Bartholomew, 1994; Kinsfogel & Grych, 2004), perhaps greater emotion dysregulation, coupled with limited coping resources due to social isolation, hopelessness, and experiences of discrimination (Ploderl, & Fartacek, 2005), can explain elevated levels of TDV in sexual minorities. Taken together, future research that taps into both emotion regulation strategies and experiences of stigma-related stressors will likely provide a more nuanced, and much needed, minority stress model that further unpacks the relation between sexual orientation and TDV.

The finding that bisexual adolescents experienced even greater dating violence than homosexual adolescents fits with literature demonstrating those with a double minority status often show poorer mental and physical health outcomes (Balsam et al., 2005; Diaz, Ayala, Bein, Jenne, & Marin, 2001). Some authors have suggested that bisexuals experience *dual marginalization* (Ochs, 2006), or simultaneous discrimination from both the minority (i.e. homosexual) and dominant, majority (i.e. heterosexual) cultures (Burrill, 2009; Eliason, 1997). Indeed, bisexuals often face unique challenges not shared by homosexuals, such as more pronounced invalidation of their identity as legitimate or “bi-invisibility” (Bronn, 2001) and pressure to dichotomize their sexuality into either heterosexual or homosexual (Oswalt, 2009). Research has demonstrated that heterosexuals’ attitudes towards bisexuals are largely unfavorable, even more so than various racial and religious groups (Herek, 2002). Within the LGB community, gays and lesbians may stereotype bisexuals as simply confused or unsure of their sexual identity, uncommitted or untrustworthy in romantic relationships, or remain closeted in order to maintain heterosexual privilege (Israel & Mohr, 2004). Perhaps the dual

marginalization from both the heterosexual and homosexual communities leads to increased minority stress, which may in part explain higher rates of TDV.

The relation between TDV and race has remained a debated topic in the empirical literature. Although findings from these studies are historically mixed, evidence generally finds disproportional rates across racial groups, with risk highest for Black couples, followed by Hispanic couples, followed by White couples (Caetano, Cunradi, Schafer, & Clark, 2000; Straus, Gelles, & Smith, 1990; Tjaden & Thoennes, 2000). Numerous explanations have been proposed for this discrepancy, including differing cultural and community views on acceptance of violence, displaced anger brought on by institutionalized racism, and structural inequalities such as poverty, unemployment, and undereducation (Hampton, Oliver, & Magarian, 2003; Gelles, 1985). Indeed, sociodemographic factors appear to explain many of these racial differences in adult populations, with research demonstrating that, after controlling for income and employment, the discrepancies in partner violence disappear (Cho, 2012; Lambert & Firestone, 2000; Rennison & Planty, 2003; Straus et al., 1990). Other authors have argued that differences in TDV cannot be explained through any one factor, with TDV more likely the result of multiple aspects across the individual, couple, and social environments (Bell & Naugle, 2008; Caetano, Schafer, & Cunradi, 2001). Perhaps the finding that Black youth were at higher risk for TDV in the present study can also be explained through a minority stress framework. Indeed, youth of color experience a host of distal and proximal interpersonal, institutional/structural, and health stressors, such as violence and hostility, lower earning wages, institutionalized racism, and greater death, disease, and disability (National Center for Health Statistics, 1994; Williams, Yu, Jackson, & Anderson, 1997). Similar to sexual minorities, it is likely inaccurate to conclude that Black

youth report higher rates of TDV solely because of their race. Rather, this finding may be better accounted for by an intermediary variable, namely increased stress due to minority status. It is interesting, however, that those with both a sexual minority status and racial minority status were not at greater risk than those with only one of these identities, particularly given evidence demonstrating poorer health outcomes for those with a double minority status (Balsam et al., 2005; Diaz et al., 2001). Future research examining whether the intersection of race and sexual orientation confers risk for psychopathology, particularly TDV, appears warranted.

Why traditional risk factors of TDV (substance use, exposure to interparental violence) were not relevant for sexual minorities remains puzzling, particularly because a strong literature has demonstrated a robust link between substance use and conflict, aggression, and partner violence across both adults (Fals-Stewart, 2003; Foran and O’Leary, 2008) and adolescents (Rothman et al., 2012; Temple & Freeman, 2011). One possibility that may explain the lack of association between substance use and TDV is evidence demonstrating higher rates of substance use among sexual minority youth compared to heterosexual youth (Marshal et al., 2008; Thiede et al., 2003). Supporting evidence for the “bar culture” comes from research demonstrating sexual minorities may have different drinking patterns, more permissive social norms, and positive expectancies for alcohol use – perhaps explained through increased minority stress (Hatzenbuehler, Corbin, & Fromme, 2008; Heffernan, 1998). It is possible that higher baseline levels and less variability of substance use across this population limits detectability of differences, contributing to this null finding. Finally, it is important to consider the possibility that the current explanatory model for TDV, which has been formulated from studies using predominately heterosexual

samples, may not easily map onto sexual minorities. Perhaps there is something unique about the dating experiences of sexual minorities that limits the applicability of the dominant heteronormative model to this population.

As with all research, our findings should be interpreted in light of several limitations. For example, questions concerning dating violence tap into the frequency of abusive behaviors, not the context. Given the importance of situational factors (e.g. presence of others, location, availability of weapon, emotional distress, intoxication), it is unclear where and when adolescents are at greatest risk for TDV. Further, the present study assessed sexual orientation on a continuum of heterosexual-to-homosexual, instead of using more common terms sexual minority youth may be more familiar with and even prefer (e.g. gay, lesbian, queer, etc.). In addition, due to study design, sexual orientation was only assessed at two-year follow up, therefore assuming a similar sexual orientation at baseline, which may be problematic given previous research showing relative instability of same-sex romantic attraction and sexual orientation in adolescence and young adulthood (Savin-Williams & Ream, 2007). Future research may benefit from more comprehensive and continual assessment of sexual orientation given normative fluctuations in sexual identity during adolescence. Also, a minority stress model was not explicitly tested in the present study and thus is offered only as a speculative explanation for the findings. Subsequent research should include central constructs of this model (e.g. stigma-related stressors, social support, resilience, outness) as well as potential confounds (e.g. SES). Finally, although sexual minorities reported more TDV at the bivariate level, sexual orientation was significant in only one of the models when considering other variables known to relate to TDV, with aggressive personality traits (i.e. hostility) remaining most predictive.

Despite these limitations, the results of the present study are strengthened in a number of important ways. First, the study had a large, ethnically and geographically diverse non-convenience sample, improving the generalizability of the findings. Second, rather than inferring sexual orientation through a behavioral criterion (e.g. dating a same-sex partner), the present study explicitly assessed sexual orientation. Third, in addition to investigating victimization, the present study also included perpetration, as well as differentiated between less physically injurious (i.e. psychological) and more severe (i.e. physical and sexual) types of violence. Fourth, given that the majority of studies on LGB populations collapse lesbian, gay, and bisexual orientations across one category, the present study contributes to the literature by examining variations not only between, but within a specific minority group, as well as the intersections of gender, race, and sexual orientation. Fifth, variables known to relate to TDV were controlled for, which highlight the importance of the unique impact of sexual orientation on the perpetration of severe TDV. Finally, the present study is the first to examine and compare TDV in sexual minorities over time.

From both a research and clinical standpoint, assuming heterosexuality or neglecting to assess sexual orientation altogether may result in failure to identify those at a particularly high risk of TDV. Interventions targeting sexual minority populations may benefit from programs that are tailored to address the specific needs of this community. Indeed, traditional risk factors derived predominantly from studies using heterosexual samples were largely not associated with dating violence for sexual minorities in the current study. Although in need of future replication, this finding calls into question the applicability of previous research on TDV to a particular subgroup of individuals, namely those who identify as non-heterosexual. Taken together, given high prevalence, serious outcomes, and limited existing empirical data,

findings from the present study suggest sexual orientation should not be overlooked when considering TDV, and continued investigation and inclusion of this understudied, yet important variable is warranted.

References

- Badgett, M. V., Lau, H., Sears, B., & Ho, D. (2007). Bias in the workplace: Consistent evidence of sexual orientation and gender identity discrimination. *The Williams Institute*.
- Balsam, K. F., Beauchaine, T. P., Mickey, R. M., & Rothblum, E. D. (2005). Mental health of lesbian, gay, bisexual, and heterosexual siblings: Effects of gender, sexual orientation, and family. *Journal of Abnormal Psychology, 114*(3), 471.
- Bandura, A. (1973). *Aggression: A social learning analysis*. Prentice-Hall.
- Bell, K. M., & Naugle, A. E. (2008). Intimate partner violence theoretical considerations: Moving towards a contextual framework. *Clinical Psychology Review, 28*(7), 1096-1107.
- Birmaher, B., Khetarpal, S., Brent, D., Cully, M., Balach, L., Kaufman, J., & Neer, S. (1997). The Screen for Child Anxiety Related Emotional Disorders (SCARED): Scale construction and psychometric characteristics. *Journal of the American Academy of Child & Adolescent Psychiatry, 36*(4), 545-553.
- Bogat, G. A., Levendosky, A. A., & Von Eye, A. (2005). The future of research on intimate partner violence: Person-oriented and variable-oriented perspectives. *American Journal of Community Psychology, 36*(1-2), 49-70.
- Bostwick, W. B., Boyd, C. J., Hughes, T. L., & McCabe, S. E. (2010). Dimensions of sexual orientation and the prevalence of mood and anxiety disorders in the United States. *American Journal of Public Health, 100*(3), 468-475.
- Bronn, C. D. (2001). Attitudes and self-images of male and female bisexuals. *Journal of Bisexuality, 1*(4), 5-29.

- Burke, L. K., & Follingstad, D. R. (1999). Violence in lesbian and gay relationships: Theory, prevalence, and correlational factors. *Clinical Psychology Review, 19*(5), 487-512.
- Burrill, K. G. (2009). Queering Bisexuality 1. *Journal of Bisexuality, 9*(3-4), 491-499.
- Caetano, R., Cunradi, C. B., Schafer, J., & Clark, C. L. (2000). Intimate partner violence and drinking patterns among white, black, and Hispanic couples in the US. *Journal of Substance Abuse, 11*(2), 123-138.
- Caetano, R., Schafer, J., & Cunradi, C. B. (2001). Alcohol-related intimate partner violence among white, black, and Hispanic couples in the United States. *Alcohol Research and Health, 25*(1), 58-65.
- Case, P., Bryn Austin, S., Hunter, D. J., Manson, J. E., Malspeis, S., Willett, W. C., & Spiegelman, D. (2004). Sexual orientation, health risk factors, and physical functioning in the Nurses' Health Study II. *Journal of Women's Health, 13*(9), 1033-1047.
- Center for Disease Control and Prevention. (2012). *Teen Dating Violence*. Retrieved from http://www.cdc.gov/violenceprevention/intimatepartnerviolence/teen_dating_violence.html.
- Centers for Disease Control and Prevention. (2012). Estimated HIV incidence in the United States, 2007-2010. *HIV Surveillance Supplemental Report, 17*(4).
- Cho, H. (2012). Racial differences in the prevalence of intimate partner violence against women and associated factors. *Journal of Interpersonal Violence, 27*(2), 344-363.
- Cohler, B. J., & Hammack, P. L. (2007). The psychological world of the gay teenager: Social change, narrative, and “normality”. *Journal of Youth and Adolescence, 36*(1), 47-59.

- Cole, E. R. (2009). Intersectionality and research in psychology. *American Psychologist*, 64(3), 170.
- Dank, M., Lachman, P., Zweig, J. M., & Yahner, J. (2014). Dating violence experiences of lesbian, gay, bisexual, and transgender youth. *Journal of Youth and Adolescence*, 43(5), 846-857.
- D'Augelli, A. R., Hershberger, S. L., & Pilkington, N. W. (1998). Lesbian, gay, and bisexual youth and their families: disclosure of sexual orientation and its consequences. *American Journal of Orthopsychiatry*, 68(3), 361.
- D'Augelli, A. R., Pilkington, N. W., & Hershberger, S. L. (2002). Incidence and mental health impact of sexual orientation victimization of lesbian, gay, and bisexual youths in high school. *School Psychology Quarterly*, 17(2), 148.
- Dean, L., Meyer, I. H., Robinson, K., Sell, R. L., Sember, R., Silenzio, V. M., ... & Xavier, J. (2000). Lesbian, gay, bisexual, and transgender health: Findings and concerns. *Journal of the Gay and Lesbian Medical Association*, 4(3), 102-151.
- Derogatis, L. R., Lipman, R. S., Rickels, K., Uhlenhuth, E. H., & Covi, L. (1974). The Hopkins Symptom Checklist (HSCL): A self-report symptom inventory. *Behavioral Science*, 19(1), 1-15.
- Derogatis, L. R., Rickels, K., & Rock, A. F. (1976). The SCL-90 and the MMPI: A step in the validation of a new self-report scale. *The British Journal of Psychiatry*, 128(3), 280-289.
- Diaz, R. M., Ayala, G., Bein, E., Henne, J., & Marin, B. V. (2001). The impact of homophobia, poverty, and racism on the mental health of gay and bisexual Latino men: Findings from 3 US cities. *American Journal of Public Health*, 91(6), 927.

- DiPlacido, J. (1998). *Minority stress among lesbians, gay men, and bisexuals: A consequence of heterosexism, homophobia, and stigmatization*. Sage Publications, Inc.
- Dobash, R. E., & Dobash, R. P. (1977). Wives: The appropriate victims of marital violence. *Victimology*, 2(3-4), 426-442.
- Dohrenwend, B.P., Levav, I., Shrout, P., Schwartz, S., Nahev, G., Link, B. G.,... Stueve, A. (1992). Socioeconomic status and psychiatric disorders: The causation-selection issue. *Science*, 255(5047), 946-952.
- Dutton, D. G. (1994). The origin and structure of the abusive personality. *Journal of Personality Disorders*, 8(3), 181-191.
- Dutton, D. G., Saunders, K., Starzomski, A., & Bartholomew, K. (1994). Intimacy-Anger and Insecure Attachment as Precursors of Abuse in Intimate Relationships¹. *Journal of Applied Social Psychology*, 24(15), 1367-1386.
- Eaton, D. K., Davis, K. S., Barrios, L., Brener, N. D., & Noonan, R. K. (2007). Associations of dating violence victimization with lifetime participation, co-occurrence, and early initiation of risk behaviors among US high school students. *Journal of Interpersonal Violence*, 22(5), 585-602.
- Edwards, K. M., & Sylaska, K. M. (2013). The perpetration of intimate partner violence among LGBTQ college youth: The role of minority stress. *Journal of Youth and Adolescence*, 42(11), 1721-1731.
- Eliason, M. J. (1997). The prevalence and nature of biphobia in heterosexual undergraduate students. *Archives of Sexual Behavior*, 26(3), 317-326.

- Exner-Cortens, D., Eckenrode, J., & Rothman, E. (2013). Longitudinal associations between teen dating violence victimization and adverse health outcomes. *Pediatrics, 131*(1), 71-78.
- Fals-Stewart, W. (2003). The occurrence of partner physical aggression on days of alcohol consumption: a longitudinal diary study. *Journal of Consulting and Clinical Psychology, 71*(1), 41.
- Faul, F., Erdfelder, E., Buchner, A., & Lang, A. G. (2009). Statistical power analyses using G* Power 3.1: Tests for correlation and regression analyses. *Behavior Research Methods, 41*(4), 1149-1160.
- Finneran, C., & Stephenson, R. (2013). Intimate Partner Violence Among Men Who Have Sex With Men A Systematic Review. *Trauma, Violence, & Abuse, 14*(2), 168-185.
- Foran, H. M., & O'Leary, K. D. (2008). Alcohol and intimate partner violence: A meta-analytic review. *Clinical Psychology Review, 28*(7), 1222-1234.
- Foshee, V. A., Benefield, T. S., Ennett, S. T., Bauman, K. E., & Suchindran, C. (2004). Longitudinal predictors of serious physical and sexual dating violence victimization during adolescence. *Preventive Medicine, 39*(5), 1007-1016.
- Foshee, V. A., Benefield, T., Suchindran, C., Ennett, S. T., Bauman, K. E., Karriker-Jaffe, K. J., ... & Mathias, J. (2009). The development of four types of adolescent dating abuse and selected demographic correlates. *Journal of Research on Adolescence, 19*(3), 380-400.
- Freedner, N., Freed, L. H., Yang, Y. W., & Austin, S. B. (2002). Dating violence among gay, lesbian, and bisexual adolescents: Results from a community survey. *Journal of Adolescent Health, 31*(6), 469-474.

- Gelles, R. J. (1985). Family violence. *Annual Review of Sociology*, 11(1), 347-367.
- Gidycz, C. A., Warkentin, J. B., & Orchowski, L. M. (2007). Predictors of perpetration of verbal, physical, and sexual violence: A prospective analysis of college men. *Psychology of Men & Masculinity*, 8(2), 79.
- Gómez, A. M. (2011). Testing the cycle of violence hypothesis: Child abuse and adolescent dating violence as predictors of intimate partner violence in young adulthood. *Youth & Society*, 43(1), 171-192.
- Halkitis, P.N., Green, K.A., & Carragher, D.J. (2006). Methamphetamine use, sexual behavior and HIV seroconversion. *Journal of Gay and Lesbian Psychotherapy*, 10(3/4), 95-109.
- Halpern, C. T., Young, M. L., Waller, M. V., Martin, S. L., & Kupper, L. L. (2004). Prevalence of partner violence in same-sex romantic and sexual relationships in a nationally sample of adolescents. *Journal of Adolescent Health*, 35(2), 124-131.
- Hampton, R., Oliver, W., & Magarian, L. (2003). Domestic violence in the African American community an analysis of social and structural factors. *Violence Against Women*, 9(5), 533-557.
- Hatzenbuehler, M. L. (2009). How does sexual minority stigma “get under the skin”? A psychological mediation framework. *Psychological bulletin*, 135(5), 707.
- Hatzenbuehler, M. L., Corbin, W. R., & Fromme, K. (2008). Trajectories and determinants of alcohol use among LGB young adults and their heterosexual peers: results from a prospective study. *Developmental Psychology*, 44(1), 81.
- Hatzenbuehler, M. L., McLaughlin, K. A., & Nolen-Hoeksema, S. (2008). Emotion regulation and internalizing symptoms in a longitudinal study of sexual minority and

- heterosexual adolescents. *Journal of Child Psychology and Psychiatry*, 49(12), 1270-1278.
- Heffernan, K. (1998). The nature and predictors of substance use among lesbians. *Addictive behaviors*, 23(4), 517-528.
- Herek, G. M. (2002). Heterosexuals' attitudes toward bisexual men and women in the United States. *Journal of Sex Research*, 39(4), 264-274.
- Herek, G. M., Gillis, J. R., Cogan, J. C., & Glunt, E. K. (1997). Hate crime victimization among lesbian, gay, and bisexual adults prevalence, psychological correlates, and methodological issues. *Journal of Interpersonal Violence*, 12(2), 195-215.
- Hipwell, A. E., Stepp, S. D., Keenan, K., Allen, A., Hoffmann, A., Rottingen, L., & McAloon, R. (2013). Examining links between sexual risk behaviors and dating violence involvement as a function of sexual orientation. *Journal of Pediatric and Adolescent Gynecology*, 26(4), 212-218.
- Holt, M. K., & Espelage, D. L. (2005). Social support as a moderator between dating violence victimization and depression/anxiety among African American and Caucasian adolescents. *School Psychology Review*, 34(3), 309.
- Holtzworth-Munroe, A., Meehan, J. C., Herron, K., Rehman, U., & Stuart, G. L. (2000). Testing the Holtzworth-Munroe and Stuart (1994) batterer typology. *Journal of Consulting and Clinical Psychology*, 68(6), 1000.
- Howard, D. E., & Wang, M. Q. (2003). Risk profiles of adolescent girls who were victims of dating violence. *Adolescence*, 38(149), 1-14.
- Israel, T., & Mohr, J. J. (2004). Attitudes toward bisexual women and men: Current research, future directions. *Journal of Bisexuality*, 4(1-2), 117-134.

- Johnston, L. D., O'Malley, P. M., Bachman, J. G., & Schulenberg, J. E. (2010). Monitoring the Future: National Survey Results on Drug Use, 1975-2009. Volume I: Secondary School Students. NIH Publication No. 10-7584. National Institute on Drug Abuse (NIDA).
- Jouriles, E. N., Garrido, E., Rosenfield, D., & McDonald, R. (2009). Experiences of psychological and physical aggression in adolescent romantic relationships: Links to psychological distress. *Child Abuse & Neglect, 33*(7), 451-460.
- King, J. (2013). Hate violence against LGBT community is on a dangerous rise. Colorlines: News for Action.
- Kinsfogel, K. M., & Grych, J. H. (2004). Interparental conflict and adolescent dating relationships: integrating cognitive, emotional, and peer influences. *Journal of Family Psychology, 18*(3), 505.
- Kosciw, J. G., Palmer, N. A., Kull, R. M., & Greytak, E. A. (2013). The effect of negative school climate on academic outcomes for LGBT youth and the role of in-school supports. *Journal of School Violence, 12*(1), 45-63.
- Krahé, B., & Berger, A. (2013). Men and women as perpetrators and victims of sexual aggression in heterosexual and same-sex encounters: A study of first-year college students in Germany. *Aggressive Behavior, 39*(5), 391-404.
- Lambert, L. C., & Firestone, J. M. (2000). Economic context and multiple abuse techniques. *Violence Against Women, 6*(1), 49-67.
- Leonard, K. E., & Senchak, M. (1996). Prospective prediction of husband marital aggression within newlywed couples. *Journal of Abnormal Psychology, 105*(3), 369.

- Lipman, R. S., Covi, L., & Shapiro, A. K. (1979). The Hopkins Symptom Checklist (HSCL): factors derived from the HSCL-90. *Journal Of Affective Disorders, 1(1)*, 9-24.
- longitudinal predictor of the perpetration of teen dating violence. *Journal of Youth and Adolescence, 42(4)*, 596-606.
- Loo, R., & Kelts, P. (1998). A caveat on using single-item measures. *Employee Assistance Quarterly, 14(2)*, 75-80.
- Luo, F., Stone, D. M., & Tharp, A. T. (2014). Physical dating violence victimization among sexual minority youth. *American Journal of Public Health, 104(10)*, 66-73.
- Maiuro, R. D., Cahn, T. S., Vitaliano, P. P., Wagner, B. C., & Zegree, J. B. (1988). Anger, hostility, and depression in domestically violent versus generally assaultive men and nonviolent control subjects. *Journal of Consulting and Clinical Psychology, 56(1)*, 17.
- Malik, S., Sorenson, S. B., & Aneshensel, C. S. (1997). Community and dating violence among adolescents: Perpetration and victimization. *Journal of Adolescent Health, 21(5)*, 291-302.
- Marshal, M. P., Dermody, S. S., Cheong, J., Burton, C. M., Friedman, M. S., Aranda, F., & Hughes, T. L. (2013). Trajectories of depressive symptoms and suicidality among heterosexual and sexual minority youth. *Journal of Youth and Adolescence, 42(8)*, 1243-1256.
- Marshal, M. P., Friedman, M. S., Stall, R., King, K. M., Miles, J., Gold, M. A., ... & Morse, J. Q. (2008). Sexual orientation and adolescent substance use: a meta-analysis and methodological review. *Addiction, 103(4)*, 546-556.

- Martin-Storey, A. (2015). Prevalence of dating violence among sexual minority youth: Variation across gender, sexual minority identity and gender of sexual partners. *Journal of Youth and Adolescence*, 44(1), 211-224.
- Mays, V. M., & Cochran, S. D. (2001). Mental health correlates of perceived discrimination among lesbian, gay, and bisexual adults in the United States. *American Journal of Public Health*, 91(11), 1869-1876.
- Meyer, I. H. (2003). Prejudice, social stress, and mental health in lesbian, gay, and bisexual populations: conceptual issues and research evidence. *Psychological Bulletin*, 129(5), 674.
- Mihalic, S. W., & Elliott, D. (1997). A social learning theory model of marital violence. *Journal of Family Violence*, 12(1), 21-47.
- Mustanski, B. S., Garofalo, R., & Emerson, E. M. (2010). Mental health disorders, psychological distress, and suicidality in a diverse sample of lesbian, gay, bisexual, and transgender youths. *American Journal of Public Health*, 100(12), 2426-2432.
- National Center for Health Statistics (US). (1994). *Plan and operation of the third National Health and Nutrition Examination Survey, 1988-94* (No. 32). Natl Ctr for Health Statistics.
- Norlander, B., & Eckhardt, C. (2005). Anger, hostility, and male perpetrators of intimate partner violence: A meta-analytic review. *Clinical Psychology Review*, 25(2), 119-152.
- Ochs, R. (1996). Biphobia: It goes more than two ways. In B. A. Firestein (Ed.), *Bisexuality: The psychology and politics of an invisible minority*. Thousand Oaks, CA: Sage.

- O'Leary, K. D., Barling, J., Arias, I., Rosenbaum, A., Malone, J., & Tyree, A. (1989). Prevalence and stability of physical aggression between spouses: A longitudinal analysis. *Journal of Consulting and Clinical Psychology, 57*(2), 263.
- O'Leary, K. D., & Smith Slep, A. M. (2003). A dyadic longitudinal model of adolescent dating aggression. *Journal of Clinical Child and Adolescent Psychology, 32*(3), 314-327.
- Orpinas, P., Nahapetyan, L., Song, X., McNicholas, C., & Reeves, P. M. (2012). Psychological dating violence perpetration and victimization: Trajectories from middle to high school. *Aggressive Behavior, 38*(6), 510-520.
- Oswalt, S. B. (2009). Don't forget the " B": Considering bisexual students and their specific health needs. *Journal of American College Health, 57*(5), 557-560.
- Persson, T. J., Pfaus, J. G., & Ryder, A. G. (2014). Explaining mental health disparities for non-monosexual women: abuse history and risky sex, or the burdens of non-disclosure?. *Social Science & Medicine, 128*, 366-373
- Plöderl, M., & Fartacek, R. (2005). Suicidality and associated risk factors among lesbian, gay, and bisexual compared to heterosexual Austrian adults. *Suicide and Life-Threatening Behavior, 35*(6), 661-670.
- Porter, J., & Williams, L. M. (2011). Intimate violence among underrepresented groups on a college campus. *Journal of Interpersonal Violence, 26*(16), 3210-3224.
- Postmes, T., Haslam, S. A., & Jans, L. (2013). A single-item measure of social identification: Reliability, validity, and utility. *British Journal of Social Psychology, 52*(4), 597-617.
- Radloff, L. S. (1977). The CES-D Scale: A self-report depression scale for research in the general population. *Applied Psychological Measurement, 1*(3), 385-401.

- Reeves, P. M., & Orpinas, P. (2011). Dating norms and dating violence among ninth graders in northeast Georgia: Reports from student surveys and focus groups. *Journal of Interpersonal Violence, 27*(9), 1677-1698.
- Rennison, C., & Planty, M. (2003). Nonlethal intimate partner violence: Examining race, gender, and income patterns. *Violence and Victims, 18*(4), 433-443.
- Roberts, A. L., McLaughlin, K. A., Conron, K. J., & Koenen, K. C. (2011). Adulthood stressors, history of childhood adversity, and risk of perpetration of intimate partner violence. *American Journal of Preventive Medicine, 40*(2), 128-138.
- Rosario, M., Rotheram-Borus, M. J., & Reid, H. (1996). Gay-related stress and its correlates among gay and bisexual male adolescents of predominantly Black and Hispanic background. *Journal of Community Psychology, 24*(2), 136-159.
- Rothman, E. F., Reyes, L. M., Johnson, R. M., & LaValley, M. (2012). Does the alcohol make them do it? Dating violence perpetration and drinking among youth. *Epidemiologic Reviews, 34*(1), 103-119.
- Savin-Williams, R. C., & Ream, G. L. (2007). Prevalence and stability of sexual orientation components during adolescence and young adulthood. *Archives of Sexual Behavior, 36*(3), 385-394.
- Schumacher, J. A., Feldbau-Kohn, S., Slep, A. M. S., & Heyman, R. E. (2001). Risk factors for male-to-female partner physical abuse. *Aggression and Violent Behavior, 6*(2), 281-352.
- Shook, N. J., Gerrity, D. A., Jurich, J., & Segrist, A. E. (2000). Courtship violence among college students: A comparison of verbally and physically abusive couples. *Journal of Family Violence, 15*(1), 1-22.

- Shorey, R. C., Cornelius, T. L., & Bell, K. M. (2008). A critical review of theoretical frameworks for dating violence: Comparing the dating and marital fields. *Aggression and Violent Behavior, 13*(3), 185-194.
- Silverman, J. G., Raj, A., Mucci, L. A., & Hathaway, J. E. (2001). Dating violence against adolescent girls and associated substance use, unhealthy weight control, sexual risk behavior, pregnancy, and suicidality. *JAMA, 286*(5), 572-579.
- Sims, E. N., Dodd, V. J. N., & Tejada, M. J. (2008). The relationship between severity of violence in the home and dating violence. *Journal of Forensic Nursing, 4*(4), 166-173.
- Straus, M. A. (1979). Measuring intrafamily conflict and violence: The conflict tactics (CT) scales. *Journal of Marriage and the Family, 41*(1), 75-88.
- Straus, M. A., Gelles, R. J., & Smith, C. (1990). *Physical violence in American families: Risk factors and adaptations to violence in 8,145 families* (pp. 29-47). New Brunswick, NJ: Transaction Publishers.
- Stuart, G. L., Temple, J. R., Follansbee, K. W., Bucossi, M. M., Hellmuth, J. C., & Moore, T. M. (2008). The role of drug use in a conceptual model of intimate partner violence in men and women arrested for domestic violence. *Psychology of Addictive Behaviors, 22*(1), 12.
- Temple, J. R., & Freeman, D. H. (2011). Dating violence and substance use among ethnically diverse adolescents. *Journal of Interpersonal Violence, 26*(4), 701-718.
- Temple, J. R., Shorey, R. C., Fite, P., Stuart, G. L., & Le, V. D. (2013a). Substance use as a longitudinal predictor of the perpetration of teen dating violence. *Journal of Youth and Adolescence, 42*(4), 596-606.

- Temple, J. R., Shorey, R. C., Tortolero, S. R., Wolfe, D. A., & Stuart, G. L. (2013b). Importance of gender and attitudes about violence in the relationship between exposure to interparental violence and the perpetration of teen dating violence. *Child Abuse & Neglect, 37*(5), 343-352.
- Thiede, H., Valleroy, L. A., MacKellar, D. A., Celentano, D. D., Ford, W. L., Hagan, H., ... & Torian, L. V. (2003). Regional patterns and correlates of substance use among young men who have sex with men in 7 US urban areas. *American Journal of Public Health, 93*(11), 1915-1921.
- Tjaden, P., & Thoennes, N. (2000). Prevalence and consequences of male-to-female and female-to-male intimate partner violence as measured by the National Violence Against Women Survey. *Violence Against Women, 6*(2), 142-161.
- Tjaden, P., Thoennes, N., & Allison, C. J. (1999). Comparing violence over the life span in samples of same-sex and opposite-sex cohabitants. *Violence and Victims, 14*(4), 413-425.
- Waldner-Haugrud, L. K., Gratch, L. V., & Magruder, B. (1997). Victimization and perpetration rates of violence in gay and lesbian relationships: Gender issues explored. *Violence and Victims, 12*(2), 173-184.
- Wekerle, C., & Wolfe, D. A. (1999). Dating violence in mid-adolescence: Theory, significance, and emerging prevention initiatives. *Clinical Psychology Review, 19*(4), 435-456.
- White, J. W., & Smith, P. H. (2009). Covariation in the Use of Physical and Sexual Intimate Partner Aggression Among Adolescent and College-Age Men A Longitudinal Analysis. *Violence Against Women, 15*(1), 24-43.

- Williams, D. R., Yu, Y., Jackson, J. S., & Anderson, N. B. (1997). Racial differences in physical and mental health socio-economic status, stress and discrimination. *Journal of Health Psychology, 2*(3), 335-351.
- Williams, T., Connolly, J., Pepler, D., & Craig, W. (2005). Peer victimization, social support, and psychosocial adjustment of sexual minority adolescents. *Journal of Youth and Adolescence, 34*(5), 471-482.
- Wolf, K. A., & Foshee, V. A. (2003). Family violence, anger expression styles, and adolescent dating violence. *Journal of Family Violence, 18*(6), 309-316.
- Wolfe, D. A., Scott, K., Reitzel-Jaffe, D., Wekerle, C., Grasley, C., & Straatman, A. L. (2001). Development and validation of the conflict in adolescent dating relationships inventory. *Psychological Assessment, 13*(2), 277.
- Wolfe, D. A., Scott, K., Wekerle, C., & Pittman, A. L. (2001). Child maltreatment: Risk of adjustment problems and dating violence in adolescence. *Journal of the American Academy of Child & Adolescent Psychiatry, 40*(3), 282-289.
- Wolfe, D. A., Wekerle, C., Reitzel-Jaffe, D., & Lefebvre, L. (1998). Factors associated with abusive relationships among maltreated and nonmaltreated youth. *Development and Psychopathology, 10*(1), 61-85.
- Wolfe, D. A., Wekerle, C., Scott, K., Straatman, A. L., Grasley, C., & Reitzel-Jaffe, D. (2003). Dating violence prevention with at-risk youth: a controlled outcome evaluation. *Journal of Consulting and Clinical Psychology, 71*(2), 279.
- Wolitzky-Taylor, K. B., Ruggiero, K. J., Danielson, C., Resnick, H. S., Hanson, R. F., Smith, D.W., & ... Kilpatrick, D. G. (2008). Prevalence and correlates of dating violence in a

national sample of adolescents. *Journal of the American Academy of Child & Adolescent Psychiatry*, 47(7), 755-762.

Zimmer-Gembeck, M. J., Siebenbruner, J., & Collins, W. A. (2004). A prospective study of intraindividual and peer influences on adolescents' heterosexual romantic and sexual behavior. *Archives of Sexual Behavior*, 33(4), 381-394.

Table 1

Demographics and percentage of adolescents experiencing various types of dating violence

Variable		Heterosexual		Sexual Minority		χ^2	<i>p</i>
		N	%	N	%		
Gender	Male	275	46.5	37	23.6	16.277***	< .001
	Female	317	53.5	98	76.4		
Race	Latino	189	31.9	35	25.9	10.489*	.015
	White	199	33.6	36	26.7		
	Black	150	25.3	41	30.4		
	Other	54	9.1	23	17.0		
Physical Violence	Victimization	108	18.4	37	27.6	5.72*	.023
	Perpetration	93	15.7	33	24.6	6.10*	.016
Psychological Violence	Victimization	73	12.5	29	21.8	7.59**	.009
	Perpetration	63	10.8	25	18.8	6.53*	.018
Sexual Violence	Victimization	76	12.9	27	20.3	5.21*	.032
	Perpetration	49	8.4	20	14.9	4.61*	.042
Relational Violence	Victimization	69	11.8	23	17.2	2.63	.125
	Perpetration	28	4.8	7	5.2	0.03	.837

Note: ****p* < .001, ***p* < .01, **p* < .05

Table 2

Results of correlational analyses examining bivariate relations between continuous variables for heterosexual and sexual minority adolescents

		Sexual Minority Adolescents								Mean (SD)	
		TDV Perpetration	TDV Victimization	Severe TDV Perpetration	Severe TDV Victimization	Hostility	Alcohol Use	Marijuana Use	Exposure to Mother-to-Father Violence	Exposure to Father-to-Mother Violence	
Hetero- sexual Adolescents	TDV Perpetration	-	.806***	.827***	.645***	.321***	.040	-.054	.030	.118	4.87 (4.83)
	TDV Victimization	.772***	-	.627***	.791***	.279**	.019	-.032	.070	.082	5.12 (4.88)
	Severe TDV Perpetration	.726***	.524***	-	.710***	.199*	.058	-.063	.129	.142	.82 (1.50)
	Severe TDV Victimization	.561***	.709***	.659***	-	.220*	.006	-.038	.107	.090	.77 (1.32)
	Hostility	.318***	.263***	.248***	.199***	-	.212***	.037	-.002	-.024	11.76 (3.90)
	Alcohol Use	.089*	.125**	.077	.059	.105*	-	.297***	-.053	.060	1.22 (3.14)
	Marijuana Use	.098*	.141**	.047	.111**	.115**	.198***	-	-.069	.103	4.17 (8.13)
	Exposure to Mother-to-Father Violence	.054	.075	-.022	.064	.062	.120**	.006	-	.530***	.19 (.51)
	Exposure to Father-to-Mother Violence	.066	.112**	.021	.045	.013	.184***	.007	.524***	-	.15 (.40)
	Mean (SD)	3.92 (3.79)	4.19 (4.06)	.44 (1.05)	.52 (1.10)	10.94 (3.63)	.97 (2.30)	2.84 (7.23)	.08 (.32)	.09 (.33)	-

Note: *** $p < .001$, ** $p < .01$, * $p < .05$

Table 3

Results of linear regressions with hostility, alcohol use, marijuana use, exposure to interparental violence, and sexual orientation as independent variables and TDV victimization, TDV perpetration, severe TDV victimization, and severe TDV perpetration as dependent variables

	<u>Variable</u>	<u>N</u>	<u>B</u>	<u>SE</u>	<u>β</u>	<u>t</u>	<u>p</u>	<u>R²</u>
TDV Victimization	Hostility	696	.279	.043	.242	6.529***	.000	.095
	Alcohol Use		.068	.064	.040	1.061	.289	
	Marijuana Use		.037	.021	.064	1.721	.086	
	Exposure to Father-To-Mother Violence		.448	.374	.051	1.198	.231	
	Exposure to Mother-To-Father Violence		.689	.373	.079	1.846	.065	
	Sexual Orientation		.577	.394	.053	1.464	.144	
TDV Perpetration	Hostility	696	.333	.040	.306	8.363***	.000	.117
	Alcohol Use		.032	.060	.020	.541	.589	
	Marijuana Use		.017	.020	.032	.877	.381	
	Exposure to Father-To-Mother Violence		.271	.348	.033	.780	.436	
	Exposure to Mother-To-Father Violence		.543	.348	.066	1.562	.119	
	Sexual Orientation		.592	.367	.058	1.615	.107	
Severe TDV Victimization	Hostility	696	.057	.012	.180	4.766***	.000	.054
	Alcohol Use		-.001	.018	-.002	-.061	.952	
	Marijuana Use		.008	.006	.053	1.393	.164	
	Exposure to Father-To-Mother Violence		.094	.105	.039	.895	.371	
	Exposure to Mother-To-Father Violence		.190	.105	.079	1.813	.070	
	Sexual Orientation		.173	.110	.058	1.569	.117	
Severe TDV Perpetration	Hostility	696	.070	.012	.223	5.964***	.000	.074
	Alcohol Use		.015	.018	.031	.826	.409	
	Marijuana Use		-.001	.006	-.006	-.167	.867	
	Exposure to Father-To-Mother Violence		-.008	.103	-.003	-.081	.935	
	Exposure to Mother-To-Father Violence		.210	.102	.089	2.055*	.040	
	Sexual Orientation		.306	.108	.104	2.836**	.005	

Note: *** $p < .001$, ** $p < .01$, * $p < .05$

Table 4

Results of repeated measures ANOVA, with sexual orientation as the between subjects factor and TDV victimization and TDV perpetration at baseline and two year follow up as the within subjects factor

Tests of Within Subjects Effects

	Effect	<i>MS</i>	<i>df</i>	<i>F</i>	<i>p</i>
TDV Victimization	Time	4.409	1	.397	.529
	Time*Sexual Orientation	.484	1	.044	.835
	Error	11.110	640		
TDV Perpetration	Time	.391	1	.051	.821
	Time*Sexual Orientation	11.685	1	1.536	.216
	Error	7.609	655		

Tests of Between Subjects Effects

	Effect	<i>MS</i>	<i>df</i>	<i>F</i>	<i>p</i>
TDV Victimization	Sexual Orientation	79.574	1	3.203	.074
	Error	24.874	640		
TDV Perpetration	Sexual Orientation	118.685	1	5.189*	.023
	Error	22.874	655		

Note: * $p < .05$

Appendices

Appendix 1: Conflict in Adolescent Dating and Relationship Inventory (CADRI; Wolfe et al., 2001)

The following questions ask about things that may have happened to you with your boyfriend/girlfriend (or most recent ex-boyfriend/ex-girlfriend) in the past year (since the last survey).

During a conflict or argument with my boyfriend/girlfriend (or most recent ex-boyfriend/ex-girlfriend) in the <u>past year</u> (since the last survey)...	Yes [1]	No [0]
1.A. <u>I</u> touched him/her sexually when he/she didn't want me to.	yes <input type="radio"/>	no <input type="radio"/>
1.B. <u>He/She</u> touched me sexually when I didn't want him/her to.	yes <input type="radio"/>	no <input type="radio"/>
2.A. <u>I</u> tried to turn his/her friends against him/her.	yes <input type="radio"/>	no <input type="radio"/>
2.B. <u>He/She</u> tried to turn my friends against me.	yes <input type="radio"/>	no <input type="radio"/>
3.A. <u>I</u> did something to make him/her feel jealous.	yes <input type="radio"/>	no <input type="radio"/>
3.B. <u>He/She</u> did something to make me feel jealous.	yes <input type="radio"/>	no <input type="radio"/>
4.A. <u>I</u> destroyed or threatened to destroy something he/she valued.	yes <input type="radio"/>	no <input type="radio"/>
4.B. <u>He/She</u> destroyed or threatened to destroy something I valued.	yes <input type="radio"/>	no <input type="radio"/>
5.A. <u>I</u> brought up something bad that he/she had done in the past.	yes <input type="radio"/>	no <input type="radio"/>
5.B. <u>He/She</u> brought up something bad that I had done in the past.	yes <input type="radio"/>	no <input type="radio"/>
6.A. <u>I</u> threw something at him/her.	yes <input type="radio"/>	no <input type="radio"/>
6.B. <u>He/She</u> threw something at me.	yes <input type="radio"/>	no <input type="radio"/>
7.A. <u>I</u> said things just to make him/her angry.	yes <input type="radio"/>	no <input type="radio"/>
7.B. <u>He/She</u> said things just to make me angry.	yes <input type="radio"/>	no <input type="radio"/>
8.A. <u>I</u> spoke to him/her in a hostile or mean tone of voice.	yes <input type="radio"/>	no <input type="radio"/>
8.B. <u>He/She</u> spoke to me in a hostile or mean tone of voice.	yes <input type="radio"/>	no <input type="radio"/>
9.A. <u>I</u> forced him/her to have sex when he/she didn't want to.	yes <input type="radio"/>	no <input type="radio"/>
9.B. <u>He/She</u> forced me to have sex when I didn't want to.	yes <input type="radio"/>	no <input type="radio"/>
10.A. <u>I</u> threatened him/her in an attempt to have sex with him/her.	yes <input type="radio"/>	no <input type="radio"/>
10.B. <u>He/She</u> threatened me in an attempt to have sex with me.	yes <input type="radio"/>	no <input type="radio"/>
11.A. <u>I</u> insulted him/her with put-downs.	yes <input type="radio"/>	no <input type="radio"/>
11.B. <u>He/She</u> insulted me with put-downs.	yes <input type="radio"/>	no <input type="radio"/>
12.A. <u>I</u> kissed him/her when he/she didn't want me to.	yes <input type="radio"/>	no <input type="radio"/>
12.B. <u>He/She</u> kissed me when I didn't want him/her to.	yes <input type="radio"/>	no <input type="radio"/>

13.A. I said things to his friends about him/her to turn them against him/her.	yes <input type="radio"/>	no <input type="radio"/>
13.B. He/She said things to my friends about me to turn them against me.	yes <input type="radio"/>	no <input type="radio"/>
14.A. I ridiculed or made fun of him/her in front of others.	yes <input type="radio"/>	no <input type="radio"/>
14.B. He/She ridiculed or made fun of me in front of others.	yes <input type="radio"/>	no <input type="radio"/>
15.A. I kept track of who he/she was with and where he/she was.	yes <input type="radio"/>	no <input type="radio"/>
15.B. He/She kept track of who I was with and where I was.	yes <input type="radio"/>	no <input type="radio"/>
16.A. I blamed him/her for the problem.	yes <input type="radio"/>	no <input type="radio"/>
16.B. He/She blamed me for the problem.	yes <input type="radio"/>	no <input type="radio"/>
17.A. I kicked, hit, or punched him/her.	yes <input type="radio"/>	no <input type="radio"/>
17.B. He/She kicked, hit, or punched me.	yes <input type="radio"/>	no <input type="radio"/>
18.A. I accused him/her of flirting with another girl/guy.	yes <input type="radio"/>	no <input type="radio"/>
18.B. He/She accused me of flirting with another girl/guy.	yes <input type="radio"/>	no <input type="radio"/>
19.A. I deliberately tried to frighten him/her.	yes <input type="radio"/>	no <input type="radio"/>
19.B. He/She deliberately tried to frighten me.	yes <input type="radio"/>	no <input type="radio"/>
20.A. I slapped him/her or pulled his/her hair.	yes <input type="radio"/>	no <input type="radio"/>
20.B. He/She slapped me or pulled my hair.	yes <input type="radio"/>	no <input type="radio"/>
21.A. I threatened to hurt him/her.	yes <input type="radio"/>	no <input type="radio"/>
21.B. He/She threatened to hurt me.	yes <input type="radio"/>	no <input type="radio"/>
22.A. I threatened to end the relationship.	yes <input type="radio"/>	no <input type="radio"/>
22.B. He/She threatened to end the relationship.	yes <input type="radio"/>	no <input type="radio"/>
23.A. I threatened to hit him/her or throw something at him/her.	yes <input type="radio"/>	no <input type="radio"/>
23.B. He/She threatened to hit me or throw something at me.	yes <input type="radio"/>	no <input type="radio"/>
24.A. I pushed, shoved, or shook him/her.	yes <input type="radio"/>	no <input type="radio"/>
24.B. He/She pushed, shoved, or shook me.	yes <input type="radio"/>	no <input type="radio"/>
25.A. I spread rumors about him/her.	yes <input type="radio"/>	no <input type="radio"/>
25.B. He/She spread rumors about me.	yes <input type="radio"/>	no <input type="radio"/>

Appendix 2: Hostility Subscale from the Symptom Check List (SCL-90; Derogatis et al., 1973)

In general, how often do you:				
	never [1]	once in a while [2]	fairly often [3]	most of the time [4]
1. Feel easily annoyed or irritated?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Have temper outbursts you can't control?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Have urges to beat, injure, or harm someone?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Have urges to break or smash things?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Get into frequent arguments?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. Shout or throw things?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Appendix 3: Substance Use (adapted from Johnston et al., 2010)

The next set of questions are about alcohol and drug use. When the statement refers to “drinking alcohol,” please think in terms of any alcoholic beverage such as beer, wine, whiskey, liquor, rum, scotch, vodka, gin, or various alcoholic mixed drinks. Please also keep in mind that one drink of alcohol refers to one beer, one shot of liquor, or one glass of wine.

Since your last survey (About 1 year ago), did you use any of the following:	Yes [1]	No [0]
1. Alcohol (more than just a few sips)	yes <input type="radio"/>	no <input type="radio"/>
2. Cigarettes (more than just a puff)	yes <input type="radio"/>	no <input type="radio"/>
3. Marijuana	yes <input type="radio"/>	no <input type="radio"/>
4. Synthetic marijuana (for example, spice, K2)	yes <input type="radio"/>	no <input type="radio"/>
5. Cocaine (powder, crack, or freebase)	yes <input type="radio"/>	no <input type="radio"/>
6. Amphetamines (speed, crystal, crank, ice)	yes <input type="radio"/>	no <input type="radio"/>
7. Inhalants (sniffed glue, huffing...)	yes <input type="radio"/>	no <input type="radio"/>
8. Over the counter cold or cough medicine with the intent of getting high (DXM, Triple Cs, Skittles, drank)	yes <input type="radio"/>	no <input type="radio"/>
9. Ecstasy (MDMA, X, XTC, E)	yes <input type="radio"/>	no <input type="radio"/>
10. Bath salts	yes <input type="radio"/>	no <input type="radio"/>
11. Salvia	yes <input type="radio"/>	no <input type="radio"/>
12. Prescription medications that weren't prescribed by a health professional (Xanax, Vicodin, Oxycontin, Percocet, Ritalin, Adderall, Ludes, Vitamin R, Handlebars)	yes <input type="radio"/>	no <input type="radio"/>

The next questions are about the **PAST MONTH**.

*For the next question, **binge drinking** is defined as 5 or more drinks for boys and 4 or more drinks for girls. In the **past month**, how many days would you say you participated in **binge drinking**?*

_____ days (enter a # between 0 and 30)

In the past month, how many days did you use marijuana?

_____ days (enter a # between 0 and 30)

Appendix 4: Exposure to Interparental Violence

Instructions: No matter how well parents get along, there are times when they argue, and feel angry towards each other. The following questions deal with things that your father (or male caregiver) and mother (or female caregiver) might have done to each other when they were angry.

- Push, grabbed, or shoved.**
- Twisted arm or pulled hair.**
- Slapped.**
- Slammed against wall.**
- Kicked, bit, punched, or hit with a fist.**
- Hit or tried to hit with something.**
- Burned or scalded on purpose.**
- Choked.**
- Threatened with a knife or gun.**

1. In the PAST YEAR, how many times did your father (or male caregiver) do any of the above behaviors towards your mother (or female caregiver)?

- Never [0]
- Once or twice [1]
- 3-20 times [2]
- More than 20 times [3]

2. In the PAST YEAR, how many times did your mother (or female caregiver) do any of the above behaviors towards your father (or male caregiver)?

- Never [0]
- Once or twice [1]
- 3-20 times [2]
- More than 20 times [3]