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Examining links between sexual risk behaviors and dating violence involvement as a function of sexual orientation

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Abstract

Study Objective—To examine the association between dating violence perpetration and victimization and sexually risky behaviors among sexual minority and heterosexual adolescent girls.

Design—Adolescent girls reported on sexual orientation, sexual behaviors and risk-taking, and their use of and experience with dating violence in the past year. Data were analyzed using multinomial regression adjusted for race, poverty, living in a single parent household, and gender of current partner to examine (1) whether sexual minority status was associated with sexual risk behaviors after sociodemographic correlates of sexual risk were controlled; and (2) whether dating violence context accounted for elevated risk.

Setting—Urban, population-based sample of girls interviewed in the home.

Participants—1,647 adolescent girls (38% European American, 57% African American, and 5% other) aged 17 years. Over one third of the sample lived in poverty.

Interventions—None.

Main Outcome Measure—Sexual risk-taking.

Results—Sexual minority status differentiated girls engaging in high sexual risk-taking from those reporting none, after controlling for sociodemographic and relationship characteristics. Dating violence perpetration and victimization made unique additional contributions to this model, and did not account for the elevated risk conferred by sexual minority status.

Conclusions—Sexual minority girls (SMGs) were more likely than heterosexual girls to report high sexual risk-taking and teen dating violence victimization. As with heterosexual girls, sexual risk-taking among SMGs was compounded by dating violence, which was not explained by partner gender. Adolescent girls' risky sexual behavior may be reduced by interventions for teen dating violence regardless of sexual minority status.

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Keywords

Minority health; sexual behavior; female; adolescent; dating violence

Introduction

Evidence over the past decade has shown that gay/lesbian and bisexual adolescents are at heightened risk for contracting HIV and other sexually transmitted infections (STIs). Compared with their heterosexual peers, sexual minority youth are more likely to initiate sexual intercourse at a younger age^{1,2}, report a greater number of lifetime and recent sexual partners³, and are more likely to engage in unprotected sexual intercourse^{1,4}. Data also show that sexual minority girls (SMGs; girls who report same-sex romantic or sexual attraction, same-sex sexual behavior, and/or same-sex sexual orientation identity) are as, or more likely, than their heterosexual peers to report other-gender sexual experiences^{5,6}, and are more likely to have contracted an STI^{7,8} or become pregnant⁹. One hypothesis for the elevated rates of high risk sexual behaviors, is that SMGs experience high levels of victimization experiences, stigma, and sexual coercion^{8,10–14}, in the context of limited social support¹⁵.

Results are mixed as to whether SMGs are at increased risk for victimization within dating or romantic relationships. For example, in a nationally representative sample, the prevalence of violent victimization among adolescent girls in same-sex relationships was 13.1%¹⁶, a rate that did not differ from reports of girls in heterosexual relationships¹⁷. Research on older adolescents also reported no difference in rates of dating victimization between sexual minority and heterosexual groups¹⁸. In contrast, rates of physical abuse of adult sexual minority women range from 12% to 73%^{19–22}. Although variations in sampling, definitions and measures of partner violence make comparisons across studies difficult^{23–25}, evidence from adult samples typically shows that sexual minority groups are vulnerable to experiencing intimate partner violence^{19,22,26,27}, even when it is not recognized as such by the victim²⁸.

Research on heterosexual couples has shown that adolescent girls report high levels of aggression perpetration in dating relationships²⁹ and that mutual aggression is common during this developmental period^{30–32}. Data also show that involvement in dating violence is associated with risky sexual behaviors in adolescent samples^{33,34}. With few exceptions³⁵, little is known about the extent of dating violence perpetration by SMGs, or whether the use of or experience with violence within their dating relationship is associated with elevated sexual risk behaviors.

Most research to date has been limited to comparisons of the prevalence of sexual risk behaviors and associated health needs of sexual minority and heterosexual youth, and sociodemographic covariates or other risk factors that may account for high levels of sexual risk are frequently absent. Yet evidence shows that poverty, single-parent households, and African American race are each associated with younger age at coitarche, teenage pregnancy and sexual health risks^{36–39}. Although many studies of sexual minority youth do not describe the racial distribution of the sample⁴⁰, there is some limited evidence that European American sexual minority women are at higher risk than other racial groups for contracting STIs⁴¹. Nevertheless, it remains unclear whether female sexual minority status is uniquely associated with sexual risk once sociodemographic factors are accounted for.

In the current study we examine the association between sexual minority status and sexual risk-taking in a racially diverse, urban-living sample of adolescent girls. Based on separate bodies of research linking a) sexual minority status with victimization experiences; and b)

dating violence with sexual risk, we hypothesized that dating violence involvement would be higher for SMGs than for heterosexual girls after controlling for sociodemographic characteristics, and that teen dating violence (TDV) would account for elevated rates of sexual risk-taking among SMGs. However, given the lack of information on the inter-relationships among these variables, we also tested whether TDV operated as a moderator of the SMG and risky sex relationship.

Materials and Methods

Sample

The current analyses use data from the Pittsburgh Girls Study (PGS), a longitudinal study of the development of mental health problems and substance use in young girls. In assessment wave 1, the sample comprised 2,451 girls in four age cohorts (5, 6, 7 and 8 years) recruited into a prospective study following the enumeration of 103,238 City households in 1999. In the enumeration process, all households in the poorest third of City neighborhoods, and 50% of the households in the remaining neighborhoods were sampled^{42,43}. Sample retention rates over the course of the PGS study have been high, and 85.6% of the original sample (N=2,120) was retained in wave 11.

Questions about sexual identity were introduced into the assessment battery beginning at age 16 years. Due to the accelerated cohort design of the PGS, these questions were thus administered to the oldest age cohort in wave 9 (2008–2009), to the two oldest cohorts in wave 10 (2009–2010), and to the three oldest cohorts in assessment wave 11 (2010–2011). In order to maximize the sample size, wave 11 data, based on three of the four cohorts of girls (N=1,647), were used in the current analyses. Within this sample of girls, 37.9% girls were European American, 57.2% African American, and 4.9% multiracial or another race. Approximately half of the girls (50.3%) lived with a single-parent, and 39.3% lived in poverty (i.e. a household receiving public assistance such as food stamps or Medicaid). The mean age of the girls in wave 11 was 17.3 years (SD=1.26).

Measures

Sexual identity—In response to the question, “Do you consider yourself to be: heterosexual or straight, gay or lesbian, or bisexual?” 125 girls (7.6%) self-identified as bisexual, 27 (1.6%) as gay or lesbian, and 1495 (90.8%) as heterosexual or straight. Due to the small size of the gay or lesbian group, these individuals were combined with bisexual group to comprise a sexual minority group.

Sexual Behaviors and Sexual Risk-taking were assessed beginning at age 11 years using girls’ reports on the Adolescent Sexual Activity Index⁴⁴, which was adapted to use a ‘past year’ timeframe. The 12 items assessed the presence or absence of pre-sexual and sexual behaviors. Girls reported on whether they had had sex with a boy or a girl in the past year, on the number of sexual partners, and whether they had had sex under the influence of alcohol, marijuana, opioids, stimulants, sedatives, hallucinogens, cocaine or another substance (e.g. ‘In the past year, how often have you had anonymous, unplanned, or unprotected sex when you were drinking or drunk’). The frequency of use of barrier methods of birth control, whether or not they had been pregnant and whether they had been diagnosed with or treated for an STI in the past year, were also assessed. Girls reporting no sexual activity in the past year were coded as not engaging in sexual risk-taking. Following prior research⁴⁵, a sexual risk index was created from six dichotomized items: i) had sex with two or more partners in the past year; ii) did not ‘always’ use barrier birth control; iii) had been pregnant; iv) had contracted an STI; v) coitarche by age 14 years; vi) sex under the

influence. As the index was positively skewed for both heterosexual and sexual minority girls, it was collapsed into none (76.2%), moderate (13.8%), and high risk (10%) groups.

Dating and dating violence—All research participants were asked ‘Do you currently have a romantic partner?’ If the girl responded ‘yes’ then she was asked, ‘How long have you been in this relationship?’, ‘Is your current partner a boy or a girl?’ and was also administered the physical assault (minor) subscale of the Revised Conflict Tactics Scale ⁴⁶. The items from this measure (e.g. ‘While arguing, I threw something at my partner’) were worded to assess first perpetration, and then victimization, of physical aggression during the past year. The frequency of each behavior was rated on a seven-point scale (1=never to 7=more than 20 times). Because the score distribution was highly skewed for both heterosexual and sexual minority girls, the variables were reduced to binary variables denoting none vs. any physical violence for both perpetration and victimization.

Procedure

Approval for all study procedures was obtained from the University of Pittsburgh Institutional Review Board. Written informed consent from the caregiver and assent from the girl were obtained prior to data collection. Interviews were conducted in the home by trained interviewers using a laptop computer. All the participants were financially reimbursed for their help with the study.

Analytic procedure

For the current analyses, a binary variable was created to contrast minority racial status from European American. Sexual minority versus heterosexual group differences on the study variables were examined by means of ANOVAs for continuous scores and chi square analyses for categorical (binary) variables using IBM SPSS 20 software.

We used multinomial logistic regression to compare different categories of sexual risk-taking to a group that did not engage in any of these behaviors. Multinomial logistic regression is an extension of binary logistic regression, and is used when the outcome variable has three or more values (‘none’, ‘moderate’ and ‘high’ in the current study). This technique breaks up the regression analysis into a series of binary regressions comparing each group (high and moderate) to a baseline group (none). Thus, with none as the baseline group, multinomial regression assesses the odds of being in the high sexual risk-taking group vs. the none group and the odds of being in the moderate sexual risk-taking group vs. the none group simultaneously.

We tested five multinomial logistic regression models. The first model tested the direct effect of SMG predicting sexual risk-taking, controlling for five sociodemographic covariates: minority race, household poverty, living in a single parent household, male romantic partner and length of current relationship. To examine whether the relationship between SMG and sexual risk-taking was a function of TDV perpetration, the second model included girls’ perpetration of TDV as an additional predictor. Similarly, in the third model, girls’ experience of TDV victimization was added as an additional predictor to the baseline model 1. Table 4 displays the results of these three models for each of high and moderate relative to none. In the fourth and fifth models, the moderating effects of dating violence involvement on the relation between SMG and sexual risk-taking were also examined by including the interaction terms between sexual minority status and each of perpetration (model 4) and victimization (model 5), separately.

Results

In the current sample, there were few sociodemographic differences between the sexual minority and heterosexual girls. Thus, the groups did not differ in terms of age, racial minority status or living in a single parent headed household, but sexual minority girls were more likely to be living in poverty (47.0% vs. 38.5%, $\chi^2[1]=4.1$, $p<.05$) (Table 1).

Lifetime report of having ever had sex with a boy did not significantly differ between sexual minority and heterosexual groups (57.9% and 55.4%, ns), but SMGs were more likely to report having had sex with a girl (47.4% vs. 0.9% of heterosexual girls). The percentage of girls having had sex with either a boy or a girl were 73.0% and 55.6% respectively (Table 2). SMGs reported a younger age at first sex with a boy compared with heterosexual girls respectively ($M=14.95$ years, $SD=1.45$ vs. 15.68 , $SD=1.38$) and a greater proportion also reported first sexual intercourse by age 14 (33.7% vs. 19.1%). There were no group differences in reported use of barrier birth control, but SMGs were more likely than heterosexual girls to report two or more male sexual partners in the past year (60% vs. 33.3%), and having had sex when under the influence of a substance (9.9% vs. 1.6%). As a group, SMGs were not more likely to have ever been pregnant, but those who had were younger at their first pregnancy (14.90 , $SD=1.63$ vs. 15.44 , $SD=1.36$) than girls identifying as heterosexual. Finally, SMGs were more likely to report ever having contracted an STI (15.1% vs. 4.8%). Sexual minority status was also significantly associated with sexual risk as indicated by the composite index (e.g. 25% of SMGs reported high risk behaviors compared with 13.7% of heterosexual girls).

Similar proportions of girls in the two groups reported currently having a romantic partner. More than two-thirds of SMGs reported that their current partners were male (67.5% vs. 99.7% heterosexual girls) and the groups also differed in terms of the length of the current romantic relationship, with SMGs reporting a significantly shorter relationship length: SMGs reported a mean length of 31.1 weeks ($SD=36.8$) and heterosexual girls reported a mean length of 61.7 weeks ($SD=61.2$). Approximately one third of all girls reported using physical aggression towards their dating partner, and no group differences by sexual orientation were revealed. In contrast, a significantly higher rate of victimization was reported by SMGs (31.3%) compared with heterosexual girls (18.4%). This elevated risk was not explained by having a male partner. Thus, among all girls reporting a male partner, victimization rates were 26.8% among SMGs and 18.3% among heterosexual girls ($\chi^2[1]=2.30$, n.s). Furthermore, almost half of girls identifying as gay or lesbian (40.7%) reported being physically assaulted by their current, female, partner.

The first multinomial logistic regression model (Table 4, model 1) revealed significant independent effects of minority race, having a male romantic partner, and sexual minority status on high sexual risk-taking relative to none. In comparison with girls engaging in no sexual risk-taking, the odds of engaging in high sexual risk were elevated by 3.11 times ($OR=1.94-4.99$) for girls of minority race, 9.14 times ($OR=1.86-44.97$) for girls with a male partner, and nearly 4-fold (2.04–7.48) for SMGs. Additionally, girls of minority race were 2.48 times more likely ($OR=1.61-3.82$) to engage in moderate levels of sexual risk-taking compared with girls who engaged in none. Sociodemographic factors, relationship characteristics, and SMG status were not predictive of moderate levels of sexual risk-taking compared to no sexual risk-taking.

When girls' report of dating violence perpetration was also included (Table 4, model 2), an additive effect of this variable was observed. Thus, TDV perpetration increased the risk of engaging in high sexual risk behaviors compared to none by a factor of 3.25 ($OR=2.13-4.95$). However, the inclusion of TDV perpetration did not significantly mitigate the relation

between minority race, male partner, and sexual minority status on high sexual risk-taking compared to none as noted in model 1. A similar picture was obtained in model 3 (Table 4), when TDV victimization was included as an additional covariate in base model 1. Thus, after controlling for sexual minority status, sociodemographic factors, and relationship factors, experience of dating violence victimization increased the odds of engaging in high risk sexual behaviors compared to none by a factor of 3.7 (OR=2.31–5.92). The results again revealed a significant main effect of TDV perpetration and victimization predicting moderate sexual risk-taking compared to no sexual risk-taking. Specifically, TDV perpetration increased the odds of moderate levels of sexual risk-taking relative to none by a factor of 2.13 (OR=1.44–3.15), and TDV victimization increased the odds by a factor of 2.24 (OR=1.41–3.57). Neither variable accounted for the effects of minority race observed in model 1.

When the interaction between sexual minority status and either TDV perpetration (model 4) or victimization (model 5) was added to models 2 and 3 respectively, no effects were revealed. Thus, TDV involvement did not differentially increase the likelihood of high sexual risk-taking among SMGs compared with heterosexual girls.

Discussion

The current study adds to the growing body of work examining sexual risk behaviors and dating violence among sexual minority youth. Particular strengths include prospective assessment of sexual history to derive age at first sex and pregnancy, and lifetime rates of sexually risky behavior, as well as consideration of the established relationships between sociodemographic characteristics and dating violence on sexual risk-taking. Another major strength of the study is the use of a highly diverse ethnic sample, including a large proportion of African American girls.

The sexual minority girls in the current sample were more likely than heterosexual girls to be living in a household receiving public assistance. In contrast, there were no group differences by minority race or the proportion of girls living in a single-parent headed household. There is mixed support for economic disadvantage in adult samples of lesbian and gay women⁴⁷, and this difference may be a function of the sampling approach of the current study. Nevertheless, exposure to poverty may constitute a significant and chronic psychosocial stressor, which could exacerbate other risks for negative health outcomes¹⁵. Although this possibility clearly warrants further investigation, household poverty was not related to sexually risky behaviors after controlling for other demographic variables in the current study.

Consistent with prior research with predominantly Caucasian samples, SMGs in the current sample were more likely to have contracted an STI and to have become pregnant at a young age compared with the heterosexual girls. Although there were no group differences in reported use of barrier birth control, SMGs were more likely to have engaged in sex with two or more male sexual partners in the past year and to have had sex while under the influence. In addition, sexual minority girls initiated sex at a younger age, a factor that is strongly linked to other risky behaviors in adolescence as well as elevated risk for STIs and teenage pregnancy^{48,49}.

Sexual minority girls in the current sample were as likely as heterosexual girls to report a current romantic partner, although relationship length tended to be shorter and, as expected, proportionally more reported that their partner was female. There was no group difference in terms of dating violence perpetration: approximately one third of girls in each group reported that they had physically assaulted their current partner during the past year. In

contrast, higher rates of TDV victimization among SMGs than their heterosexual peers were found. As with perpetration, about one third of SMGs reported being assaulted by their romantic partner, suggesting that these intimate relationships may be characterized by mutual aggression. Heterosexual girls however, were more likely to report perpetrating aggression than being victimized. Although similar patterns have been demonstrated in other studies of heterosexual adolescent girls⁵⁰, we are not aware of any prior work that has shown high rates of victimization that are on a par with rates of perpetration among sexual minority adolescent girls. It is possible that rates of mutual aggression are high because prior discriminatory or victimization experiences have led to an acceptance for, and tolerance of conflict and abuse within relationships. Alternatively, involvement in such relationships may be a function of low self-worth or feelings of helplessness in the face of societal pressure, marginalization and perceived discrimination consistent with minority stress theory^{8,10,33}. As a first step, further work is needed to obtain corroborative reports from the romantic partner, together with observational data on the nature and course of relationship conflict to gain a better understanding of this differential profile of risk.

The results of the multinomial regression analysis showed that sexual minority status was among several factors distinguishing girls who engaged in high sexual risk behaviors compared with those engaging in none. Thus, after controlling for sociodemographic and relationship factors, sexual minority status significantly added to girls' risk of engaging in highly risky sexual behavior. Although minority race and having a male romantic partner represented significant additional risks for all girls, they did not negate the effect of sexual minority status. The models also revealed additive effects of dating violence involvement, with similar effects from perpetration and victimization, suggesting that intervention efforts designed to reduce highly risky sexual behaviors need to address mutual TDV rather than focus on victimization without perpetration in this population. Finally, although perpetration and experience of dating violence did not appear to moderate the effect of sexual minority status on high sexual risk, the current sample may have been underpowered to detect these effects, and further research on a larger sample is warranted to determine whether the current findings are robust.

In the regression models reflecting predictors of moderate sexual risk-taking compared with none, only minority race and TDV involvement reached statistical significance. This pattern of results suggests that SMGs are disproportionately represented in the highest group at sexual risk, rather than more moderate types of behavior. In contrast, the consistency of the association between minority race and sexually risky behaviors of any type supports a well-replicated finding of earlier sexual initiation and higher rates of STIs and unplanned pregnancies among African American adolescent girls compared with their European American counterparts^{39,51–53}.

Our results showed no association between partner gender and the likelihood of victimization either in the full sample, or within the group of SMGs. Although the number of SMGs reporting a current female partner was relatively small (N=29), almost half of them reported that they had been physically assaulted in that relationship. However, due to the sample size, it was not possible to determine whether partner gender interacted with dating violence involvement to exacerbate or ameliorate the likelihood of sexual risk behaviors in the current sample. The possibility of this differential risk is clearly an avenue in need of future work.

Some limitations of the current study should be noted. The wide confidence intervals obtained for the effects of male partner on highly risky sexual behaviors probably reflected the small relative number of girls with a female partner. Caution is therefore needed when interpreting this result until replicated in a larger sample. Our models focused on the

influence of selected variables to the exclusion of others. For example, negative parenting practices, including early maltreatment, are known to be related to sexual risk-taking⁵⁴, as are mental health problems and substance use, which some studies have shown to be more prevalent among sexual minority youth^{8,55,56}. Finally, the cross-sectional design cannot shed light on the direction of the observed effects, and it is possible that sexual risk behaviors increase involvement in conflictual dating relationships rather than the reverse.

Despite these limitations, the results of the current study indicate that SMGs are vulnerable for poor sexual health and victimization within their dating relationships. As with heterosexual girls, sexual risk-taking among SMGs may be further compounded by girls' use and experience of physical aggression with their dating partner. The results further suggest that sexual health may be improved by efforts to reduce teen dating violence among adolescent girls generally. It remains to be seen whether a differential association between TDV and sexually risky behaviors exists among SMGs. Regardless, efforts are still needed to improve professionals' understanding of these issues⁵⁷, to reduce SMGs concerns about privacy and confidentiality in discussing sexual health behaviors with health care providers^{58–60} and to increase the possibility that SMGs recognize and seek help for abuse within their intimate relationships.

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Table 1

Sociodemographic characteristics of the SMG and heterosexual girls.

	Sexual minority girls		Heterosexual girls		F (df)
	N (%)	Mean (SD)	N (%)	Mean (SD)	
Age (years) yr 11		17.30 (1.23)		17.29 (1.26)	ns
Minority race	98 (64.5)		924 (61.9)		ns
Household poverty	70 (47.0)		572 (38.5)		4.1 (1)*
Single parent household	79 (52.7)		742 (50.0)		ns

Table 2

Sexual behaviors and sexual risk-taking among SMG and heterosexual girls.

	Sexual minority girls		Heterosexual girls		F (df)
	N (%)	Mean (SD)	N (%)	Mean (SD)	
Ever had sex with a boy	88 (57.9)		828 (55.4)		ns
Ever had sex with a girl	72 (47.4)		14 (.9)		601.05 (1) ***
Ever had sex with a boy and/or a girl	111 (73.0)		831 (55.6)		17.14 (1) ***
Age of 1 st sex with a boy		14.95 (1.45)		15.68 (1.38)	20.77 (1,878) ***
1 st sex before age 14	28 (33.7)		152 (19.1)		9.93 (1) **
Not always use barrier birth control	25 (35.2)		269 (37.7)		ns
2+ male partners	42 (60)		238 (33.3)		19.75 (1) ***
Sex under the influence	15 (9.9)		24 (1.6)		40.75 (1) ***
Ever pregnant	30 (19.7)		215 (14.4)		ns
Age at 1 st pregnancy		14.90 (1.63)		15.44 (1.36)	3.98 (1,243) *
Ever contracted an STI	23 (15.1)		72 (4.8)		26.98 (1) ***
Sexual risk index:					
None	84 (55.3)		984 (65.8)		
Moderate	30 (19.7)		306 (20.5)		
High	38 (25.0)		205 (13.7)		14.32 (2) ***

Note:

* $p < .05$;** $p < .01$;*** $p < .001$,

ns: not significant.

Table 3

Dating characteristics of SMG and heterosexual girls.

	Sexual minority girls		Heterosexual girls		F (df)
	N (%)	Mean (SD)	N (%)	Mean (SD)	
Currently have a romantic partner	85 (58.0)		698 (50.5)		ns
Current partner is male	56 (67.5)		696 (99.7)		215.71 (1) ***
Relationship length (weeks) [†]		31.1 (36.8)		61.74 (61.2)	25.32 (1,768) ***
TDV perpetration	30 (36.1)		234 (33.7)		ns
TDV victimization	26 (31.3)		128 (18.4)		7.74 (1) **

Note:

* $p < .05$;

** $p < .01$;

*** $p < .001$.

[†] ANOVA results based on square-root transformed data to correct positive skew. The untransformed Mean (SD) are shown here for ease of explanation.

TDV = teen dating violence.

Table 4

Multinomial logistic regression predicting the contrasts between sexual-risk groups from sexual orientation, sociodemographic and dating violence variables.

	High vs. None			Moderate vs. None		
	Model 1 OR (95% CI)	Model 2 OR (95% CI)	Model 3 OR (95% CI)	Model 1 OR (95% CI)	Model 2 OR (95% CI)	Model 3 OR (95% CI)
Minority race	3.11 (1.94–4.99) ***	2.23 (1.36–3.65) **	2.53 (1.55–4.12) ***	2.48 (1.61–3.82) ***	2.06 (1.32–3.22) ***	2.22 (1.43–3.45) ***
Household poverty	.87 (.57–1.32)	.85 (.55–1.30)	.82 (.53–1.26)	1.30 (.88–1.93)	1.26 (.85–1.87)	1.25 (.84–1.85)
Single parenthood	1.26 (.82–1.92)	1.25 (.81–1.93)	1.21 (.79–1.87)	.99 (.67–1.48)	1.01 (.68–1.50)	.99 (.67–1.47)
Male partner	9.14 (1.86–44.97) **	7.72 (1.55–38.50) *	12.33(2.42–62.89) **	1.08 (.35–3.41)	.99 (.31–3.15)	1.27 (.39–4.10)
Relationship length †	.95 (.90–1.01)	.97 (.91–1.02)	.97 (.92–1.02)	.97 (.92–1.02)	.98 (.93–1.03)	.98 (.93–1.03)
Sexual minority	3.91 (2.04–7.48) ***	3.60 (1.85–7.0) ***	3.52 (1.82–6.82) ***	1.19 (.54–2.61)	1.12 (.51–2.48)	1.10 (.50–2.42)
TDV perpetration	-	3.25 (2.13–4.95) ****	-	-	2.13 (1.44–3.15) ***	-
TDV victimization	-	-	3.70 (2.31–5.92) ***	-	-	2.24 (1.41–3.57) ***

Note.

* $p < .05$,

** $p < .01$,

*** $p < .001$.

OR = adjusted odds ratio; 95% CI = 95% confidence intervals around the odds ratios.

† Length of relationship square root transformed.

TDV = teen dating violence. Model 2 consists of the baseline model 1 with TDV perpetration as an additional covariate. Model 3 consists of the baseline model 1 with TDV victimization as an additional covariate.