Behavioral and Mental Health Correlates of Youth Stalking Victimization:

A Latent Class Approach

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Abstract

Introduction—Although recognized as a public health problem, little attention has been paid to the problem of stalking among youth. Latent profile analysis was used to identify latent groups of adolescent stalking victims and their behavioral and mental health correlates.

Methods—A cross-sectional sample of 1,236 youths were randomly selected from 13 schools stratified by community risk level (i.e., low, moderate, and high risk) and gender. Students completed surveys assessing behavioral indicators of stalking victimization, as well as substance use, sexual behavior, dating violence, and psychiatric symptoms. Data were collected in 2013 and data analyses were performed in 2015.

Results—Analysis indicated the presence of a non-victim class, a minimal exposure class, and a victim class for boys and girls alike. Approximately 14% of girls and 13% of boys were in the stalking victim class. Adolescents in the victim class reported more symptoms of post-traumatic stress, mood disorder, and hopelessness, as well as more instances of alcohol use, binge drinking, and physical dating violence victimization. Girls in the victim class also reported engaging in sexting behaviors and oral sex with significantly more partners than their non-victim peers.

Conclusions—These findings provide valuable knowledge of the prevalence and pertinent health correlates of stalking victimization in adolescence. The data suggest a substantial proportion of adolescents are victims of stalking and are likewise at risk for a number of deleterious health outcomes. As such, this population merits further attention by prevention researchers and practitioners.

Introduction

Stalking is widely recognized as a public health concern with social, economic, physical, and psychological consequences for the victims of this phenomenon.[1–4] Yet, there is a paucity of research on juvenile stalking that has been confined to case studies, small forensic

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samples, and anecdotal evidence.[5–13] Thus, little is actually known about the rates and potential consequences of stalking victimization in developing adolescent populations.

Currently, no universally accepted stalking definition exists[4,14,15]; however, there is general agreement that stalking comprises a pattern of repeated behaviors under several broad domains, including invasion of personal space, property, or privacy; attempts to initiate contact; excessive or inappropriate expressions of affection; surveillance/monitoring; coercion/harassment; intimidation/threats; and aggression.[2,4,8,14,16–22] Identifying how these different stalking tactics manifest in different combinations is critical because different stalking profiles likely confer varying degrees and forms of risk. For instance, a victim primarily experiencing surveillance/monitoring by a stalker may suffer far fewer physical, social, and psychological consequences than a victim of a stalker showing more diversity in stalking behavior (e.g., surveillance/monitoring, coercion/harassment, and invasion of privacy).[22] Little research has attempted to identify typologies (i.e., latent classes or clusters) of stalking.[20–22] Even less has considered variation in intensity/frequency of stalking behaviors in combination with diversity of tactics to identify stalking typologies and their associated consequences.[20] None have attempted this undertaking with adolescents. Given the dearth of research with adolescent populations and the potential consequences of stalking, we sought to address this gap in the literature. Using latent profile analysis (LPA), we attempted to identify latent classes of stalking victimization, and their association to pertinent behavior and health correlates, based on the combined dimensions of frequency and constellations of stalking behaviors.

Methods

Data Sample

A random sample of 1,236 students (mean age=13.6 [SD=1.6] years; 66.7% Caucasian, 21.4% Black/African American, 7.3% Hispanic/Latino, 6.8% Native American, 3.5% other) from 13 schools, stratified by sex (51.2% female, 49.8% male), grade (47.6% sixth, 52.4% ninth), and community risk level (31.5% low, 29.1% moderate, 39.4% high) were surveyed in 2013 via written questionnaire. Community risk was quantified by an index comprising poverty, unemployment, percentage minority, percentage rental housing, percentage female-headed households, and community violence rates. Parents had the opportunity to refuse consent for their child's participation by returning a written form or by calling a toll-free telephone number. All students provided written assent and were informed of their right to withdraw from the study at any time. The IRB for Wayne State University approved all procedures.

Measures

Stalking victimization was measured with 19 items derived from the work of Spitzberg and colleagues.[2,23,24] Evidence suggests adolescents are more likely to stalk casual acquaintances than prior dating partners,[7,11] perhaps due to the limited dating history common to this young population. Therefore, assessment of stalking behaviors in the present sample was not restricted to dating partners. Instructions read: *People sometimes go after relationships without realizing that the other person does not want one. How often has*

someone else pursued you, in order to start or continue a relationship that wasn't wanted? Adolescents endorsed how often they experienced the 19 behaviors in the past 12 months on a 5-point scale ranging from 0 (*never*) to 4 (*ten or more times*). Stalking indicators are provided in Table 1.

Sexual behavior was measured via three questions about the number of partners with whom they had engaged in (1) "sexting (sending sexual messages or pictures)," (2) "oral sex," and (3) "sexual intercourse (vaginal or anal)" over the past 12 months.

Substance use was measured via four questions assessing the number of times in the past year they (1) "Used alcoholic beverages" (2) "Drank more than 5 alcoholic beverages on one occasion" (i.e., binge drink) (3) "Used marijuana (pot/grass)," and (4) "Used other illegal drugs (acid/speed/coke/smack)" (i.e., hard drugs). Adolescents responded on a 5-point scale ranging from 0 (*never*) to 4 (*ten or more times*).

Post-traumatic stress symptoms were measured with the Child Post-Traumatic Stress Disorder Symptom Scale.[25] Respondents rated how often 17 symptoms had occurred over the past 2 weeks ranging from 0 (*not at all*) to 3 (*five or more times per week*). This scale has good internal and test—retest reliability as well as convergent, divergent, discriminant validity.[25] In the current sample, Cronbach's α=0.94.

Mood disorder symptoms were measured using the K6[26] to assess symptoms of general mood dysfunction. Respondents rated on a 5-point scale how often they experienced mood-specific symptoms (e.g., nervous or fidgety) over the previous 4 weeks ranging from 0 (*none of the time*) to 4 (*all of the time*). The K6 has been shown to discriminate individuals meeting DSM-IV diagnostic criteria for a mood disorder well from nonclinical levels of mood dysfunction. Psychometric properties of the K6 and ability to identify serious mental illness are well established.[26,27] In the current sample, Cronbach's α=0.84.

Hopelessness was assessed via the Hopelessness Scale for Children[28] comprising 17 items (e.g., *I might as well give up because I can't make things better for myself Things just won't work out the way I want them to*) with a response option of 0 (*no*) or 1 (*yes*). This measure correlates with severity of depression, low self-esteem, and risk for suicide.[28,29] In the current sample, Cronbach's α=0.74.

Physical dating violence victimization was measured using the Safe Dates dating violence scale.[30] Adolescents were asked how many times they had been a victim of physical behaviors by a dating partner in the past year. Fifteen behaviors were listed, including *hit or slapped, bit*, or *tried to choke, beat me up, hit me with something besides a fist, assaulted me with a knife or a gun*. Response options ranged from 0 (*never*) to 4 (*ten or more times*). In the current sample, Cronbach's α=0.94.

Sexual dating violence victimization was assessed via four items modified from the sexual coercion subscale of the Revised Conflict Tactics Scale.[31] Students indicated how many times they had been a victim of sexual violence by a dating partner *in the past year*. Items included *made me have sex without a condom, insisted on sexual activity when I did not want to (but did not use force), used force (like hitting, holding down, or using a weapon) to*

make me have any sexual activity, and *used threats to make me have any sexual activity*. Response options ranged from 0 (*never*) to 4 (*ten or more times*). In the current sample, Cronbach's α=0.87.

Statistical Analysis

Meta-analyses suggest rates and consequences of adult stalking victimization differ by sex. [32,33] Accordingly, analyses were conducted separately by sex. Analysis was performed in 2015 using Mplus, version 7.3, controlling for clustering of data within schools. Full information maximum likelihood was used to handle missing data. This analysis occurred in two stages. First, the number of latent classes of stalking victimization using LPA were identified. LPA is ideal because it can identify discrete profiles of victimization based on which stalking behaviors co-occur in tandem with variation in frequency of behaviors. The primary goal of LPA is to maximize homogeneity within groups and maximize heterogeneity between groups. Each case entered into the LPA model receives a probability of membership for each class; class assignment is made based on the highest probability. Each class yields a probability wherein the frequency of each stalking behavior in each class is estimated. The number of classes is guided by theory and use of comparative fit indices across models with sequentially increasing numbers of classes. [34–36] The Akaike Information Criterion (AIC), sample size adjusted Bayesian Information Criterion (aBIC), the Vuong—Lo—Mendell—Rubin Likelihood Ratio Test (LMR), and the Bootstrapped Likelihood Ratio Test (BLRT) were used to determine the optimal number of classes. [34–36] Average posterior probabilities (APPs) are also provided, which specify how well the indicators predict class membership. Values >0.70 suggest that the class assignment accuracy is adequate. [34,35]

In the second stage of analysis, the association between class membership and mean levels of psychiatric symptoms, substance use, number of sexual partners, and dating violence victimization was tested using the modified BCH method. [37] Omnibus chi-squares with C—1 df and pairwise contrasts chi-squares with 1 df are provided for each of the related outcomes.

Results

Class enumeration for girls indicated a large drop in fit indices (AIC and aBIC) from two to three classes (Table 2). The BLRT was significant and the LMR approached significance, suggesting a significant improvement in model fit for three versus two classes. Addition of a fourth and fifth class yielded a sustained significant BLRT and continued decline in fit indices. However, the LMR was no longer significant and decline in fit indices was considerably smaller than that identified from two to three classes. Visual inspection of class plots indicated adding a fourth or fifth class did not add substantively to interpretation and reflected minute differences in the frequency of behavior rather than significant differences in the kind of behaviors in each class. Hence, we determined the most parsimonious model was a three-class solution (Figure 1). The smallest class, 14% of girls, comprised youth endorsing a higher frequency of victimization for all indicators relative to their peers. The largest class, comprising 50% of girls, included non-victims reporting no stalking on all victimization indicators. The final class (36%) comprised girls reporting no more than

minimal exposure on all stalking victimization indicators. This class was identified as the minimal exposure class because stalking by definition requires a pattern of repeated behaviors.[2,4,14]

Class enumeration for boys yielded a pattern similar to that of the girls (Table 2). There was a considerable drop in the fit indices from two to three classes and both the LMR and BLRT were significant. For four- and five-class solutions, the BLRT remained significant and the fit indices continued to decrease. However, the LMR was no longer significant and the declines in the AIC and aBIC were much smaller in proportion relative to the drop identified from two to three classes. Visual inspection of the class plots likewise indicated that adding a fourth or fifth class did not add substantively to interpretation and reflected minute differences in the frequency of behavior rather than significant differences the kind of behaviors in each class. We thus determined the most parsimonious model with substantive interpretation was a three-class solution (Figure 1). The three classes for boys resembled the three classes for girls both in size and the composition of stalking indices. The non-victim class comprised 53% of boys, and the minimal exposure and victim classes contained 34% and 13%, respectively (Table 2).

In the second stage of analysis, mean differences were tested among the classes on psychiatric symptoms (post-traumatic stress, mood disorder, and hopelessness symptoms), number of partners for disparate sexual behaviors (sexting, oral sex, and intercourse), substance use (alcohol, binge drinking, marijuana, and hard drugs), and dating violence (physical and sexual). Table 3 presents means, SEs, omnibus, and pairwise significance tests for boys and girls in each of the classes. A general trend across boys and girls alike emerged, wherein adolescents in the victim class reported more psychiatric symptoms during the past month and a higher frequency of physical dating violence victimization, alcohol use, and binge drinking during the prior 12 months. Additionally, girls in the victim class reported higher prevalence of marijuana use and more sexting and oral sex partners during the past year.

Discussion

These findings suggest three classes of youth exist, differentiated by the frequency of all stalking victimization indicators rather than constellations of indicators. The results were strikingly similar for boys and girls in terms of victim profiles, prevalences, and correlates. Although stalking research with older samples suggests there are sex differences in prevalence rates of stalking victimization, these differences tend to increase with the age of the sample.[32,33,38]

The largest identified class was the non-victim class, comprising approximately 50% of adolescents. The victim class was the smallest class; however, the number of youth in this class is not insignificant, as 14% of girls and 13% of boys were stalking victims. This class demonstrated heightened frequency of all 19 stalking indicators relative to their peers, again suggesting adolescent stalking may differ in degree rather than kind. A third class, making up about 35% of the sample, evinced a profile indicating, at most, minimal exposure to stalking behaviors. As stalking represents a pattern of repeated behaviors [2,4,8,14,16–22] and

these students experienced behaviors, on average, one time or less, we did not consider these youth stalking victims. The most common behaviors experienced by this class with mean values slightly more than 1 were related to "hyperintimacy," that is, expressions of affection or tactics to increase the intimate nature of the relationship.[2] Spitzberg[2] notes, "the difference between stalking and mere annoyingly persistent romantic pursuit is a relatively fine line" (p. 263). Hence, the minimal exposure class may epitomize a difficult to discern fine line between annoying awkward romantic pursuit and stalking.

The current findings are both similar and dissimilar to the few studies attempting to identify latent subgroups of stalking among adults. For example, Hirtenlehner et al.[22] identified four classes (polytropic-intensive, polytropic-moderate, distant stalking, and surveillance only) distinguished by the number of stalking domains (e.g., hyperintimacy, threatening/ intimidation, aggression) experienced. However, stalking victimization behaviors were aggregated within domains and then artificially dichotomized. Such analysis precludes the ability to consider frequency of victimization behaviors in the class identification process. On the other hand, Björklund and colleagues[20] used LPA (which allows for continuous indicators) to identify five classes based on latent factor scores of violence, surveillance, and contact seeking. In a manner similar to the present findings, four classes were distinguished ordinally by the degree of surveillance and contact-seeking behaviors they employed. Notably, one of the five classes ("wide-scope stalkers") was differentiated from the other classes based on violence, whereas the other four classes evinced nearly identical levels of violence.

Of note, the aforementioned studies[20,22] used small predominately female samples containing only individuals with a history of stalking victimization; the current sample was a large random sample that predominately comprised non-victims. Additionally, previous studies used stalking indicators at the domain level, whereas this study used indicators at the individual behavior level. It is possible that these methodological differences could contribute to the disparate nature of the present sample. Alternatively, it is possible that the relatively low level of stalking victimization behaviors in this young sample precludes the ability to "specialize" in type of stalking: the frequency of the stalking behaviors experienced in this victim class was, on average, only between two and four times. This limited accumulation of stalking experiences likely mitigates the variance in the diversity of stalking tactics. Thus, the ability to differentiate stalking classes by constellations of behaviors rather than just frequency may not evolve until later developmental periods in adolescence or adulthood.

Across biological sexes, members of the victim class endorsed more symptoms of post-traumatic stress symptoms, hopelessness, and more frequently using alcohol, binge drinking, and experiencing physical dating violence victimization than their peers. Girls in the victim class reported sexting with and engaging in oral sex with significantly more people than girls in the non-victim and minimal exposure classes. In fact, across all covariates, there was a trend in which victims of stalking reported higher mean symptoms and risk behaviors than their peers in both classes.

Limitations

These data are cross-sectional and fear or emotional distress in response to the stalking indicators was not assessed. Consequently, we cannot make a causal link between stalking victimization and the mental and behavioral health outcomes in the present research. Notably, most states, but not all, include fear as a necessary component in their legal definitions of stalking.[4] In fact, some theorists distinguish between obsessive relational intrusion (ORI) and stalking. ORI is considered a less severe form of behavior intended to instigate an intimate relationship, whereas stalking is more severe, may be motivated by something other than a desire for intimacy, and invokes fear in the victim.[39,40] Nevertheless, there is substantial overlap between these two constructs and even ORI has been linked to trauma and other unfavorable outcomes.[39,41] Moreover, fear is highly subjective and susceptible to false positives and negatives when identifying stalking.[41] Hence, the distinction between ORI and stalking may be more theoretic than empirical. In fact, if these victimization experiences are linked to adverse health outcomes, even in the absence of fear, then fear as consequence of stalking or ORI is irrelevant from a public health prevention perspective. Ultimately, longitudinal data will be necessary to clarify causal relations between stalking victimization and associated socio-emotional health in adolescence.

In addition, the duration of stalking victimization was not assessed. This additional dimension likely affects the severity of consequences associated with such experiences and may function differently than the frequency of victimization.[33] Among adults, the average duration of victimization is nearly 2 years, giving rise to the potential that consequence severity may result from the cumulative impact of a pattern of behaviors over time rather than the threat conferred by any particular event.[20,33] For adolescents, who change objects of affection frequently,[42] the duration of stalking victimization is likely short.[33] However, it is possible even short periods of stalking may have significant consequences for youth during this formative stage when coping and emotion regulations skills are not fully matured. Notably, one study found that "serious violence" was actually associated with shorter stalking durations.[43] Thus, it will be important for future research with longitudinal designs to include duration of victimization. The extent to which stalking's impact is more a function of behavioral diversity, frequency, and/or duration likely has implications for prevention, therapeutic, and statutory purposes.

Conclusions

The present investigation provides a novel approach to measuring stalking victimization that may obviate the need to address fear as a criterion. The findings indicate victims of youth stalking are prevalent and at particularly high risk for a number of adverse behavioral and mental health outcomes. As such, stalking among adolescents represents a significant public health problem that necessitates the establishment of appropriate surveillance methods and attention by prevention experts.

Acknowledgments

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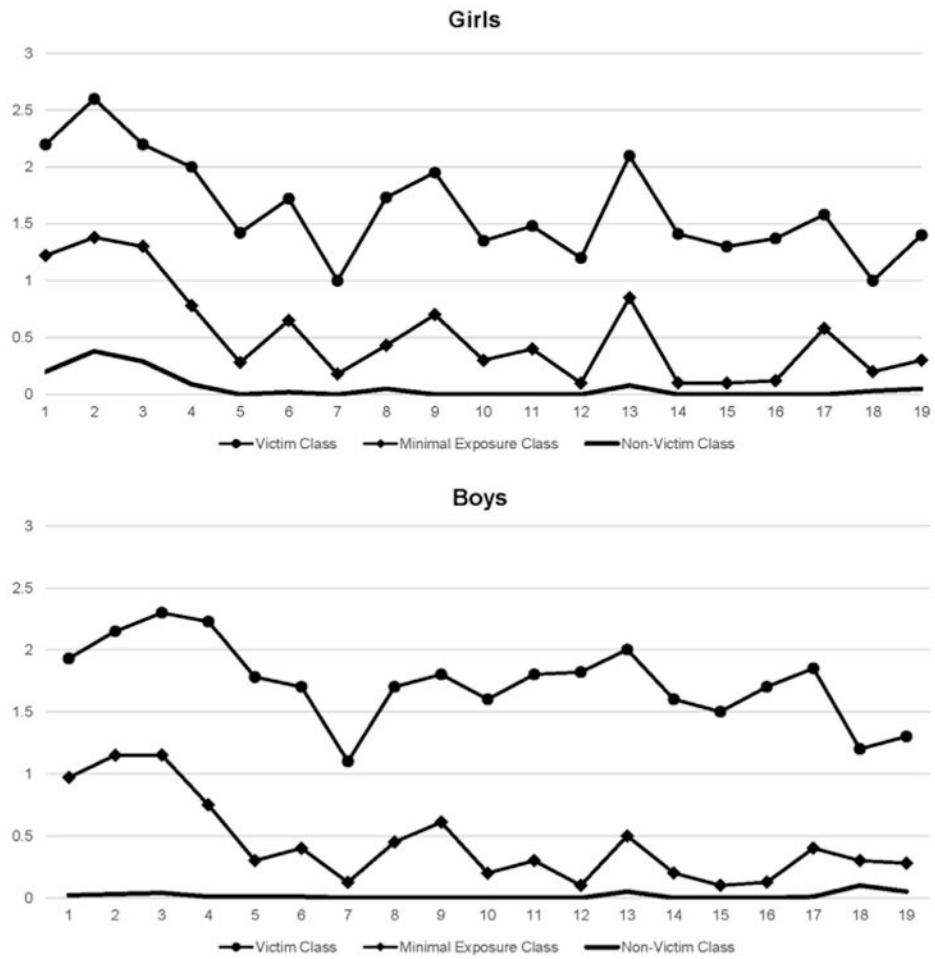**Figure 1.**
Latent class profiles of stalking indicators.

Note: Values on the Y axis represent mean frequency of each stalking indicator. Values on X axis correspond with the number of the stalking indicators presented in Table 1.

Table 1

Stalking Victimization Indicators

Indicators	Boys, M (SD)	Girls, M (SD)
1. Leaving unwanted messages (e.g., voicemails, texts)?	0.58 (1.2)	0.84 (1.3)
2. Saying "I love you" after only a short time together?	0.70 (1.2)	1.00 (1.3)
3. Doing favors you didn't ask for?	0.74 (1.3)	0.91 (1.3)
4. Following you around?	0.53 (1.1)	0.57 (1.1)
5. Watching you (e.g., following you to work, watching where you go)?	0.33 (0.9)	0.28 (0.8)
6. Getting too close to you physically, touching you when you don't want to be touched?	0.35 (0.9)	0.46 (1.0)
7. Invading your personal property (e.g., breaking into home, your room/car)?	0.17 (0.6)	0.15 (0.6)
8. Trying to be friends with your friends, get to know your family without invitation?	0.36 (0.9)	0.37 (0.9)
9. Checking up on you constantly (e.g., calling all the time)?	0.43 (1.0)	0.49 (1.1)
10. Showing up at places they knew you'd be without being invited?	0.26 (0.8)	0.26 (0.8)
11. Listen to your messages, reading your e-mail?	0.31 (0.9)	0.31 (0.8)
12. Leaving hang-up calls; notes, letters, voicemail, e-mail messages, where they imply they'll harm you?	0.23 (0.8)	0.18 (0.6)
13. Spreading false rumors about you?	0.43 (1.0)	0.58 (1.1)
14. Stealing or damaging personal things?	0.26 (0.8)	0.21 (0.7)
15. Threatening to hurt boyfriend/girlfriend, friends, family, pets?	0.20 (0.7)	0.19 (0.7)
16. Threatening personally to hurt you?	0.25 (0.8)	0.21 (0.7)
17. Taking photographs of you without your knowledge?	0.35 (0.9)	0.39 (0.9)
18. Physically hurting you?	0.27 (0.8)	0.22 (0.7)
19. Restraining you or not letting you leave?	0.24 (0.7)	0.30 (0.8)

Note: Response ranges for all items were 0–4 for both boys and girls.

Table 2

Model Fit Statistics and Class Proportions for the Three-Class Solution for Girls and Boys

Classes	AIC	aBIC	LMRα	BLRTα	Entropy	Class	n	%	APPs
Girls									
2	13,808	13,851	0.01	0.0000	0.92	Victim	77	14.44	0.94
3	13,000	13,065	0.08	0.0000	0.90	Minimal exposure	190	35.65	0.95
4	12,807	12,894	0.41	0.0000	0.86	Non-victim	266	49.91	0.96
5	12,690	12,800	0.34	0.0000	0.85	—	—	—	—
Boys									
2	9,987	10,023	0.05	0.0000	0.92	Victim	58	12.92	0.94
3	9,244	9,299	0.05	0.0000	0.90	Minimal exposure	154	34.30	0.96
4	9,014	9,088	0.39	0.0000	0.88	Non-victim	237	52.78	0.98
5	8,886	8,978	0.91	0.0000	0.88	—	—	—	—

aBIC, adjusted Bayesian Information Criterion; AIC, Akaike Information Criterion; APPs, Average Posterior Probabilities; BLRT, Bootstrapped Likelihood Ratio Test; LMR, Vuong—Lo—Mendell—Rubin Likelihood Ratio Test.

Table 3

Means, SEs, and Mean Comparisons of Covariates by Class

Variable	Victim, M (SE)	Minimal exposure, M (SE)	Non-victim, M (SE)	Omnibus $\chi^2(2)$	1 vs 2,[a] $\chi^2(1)$	1 vs 3,[b] $\chi^2(1)$	2 vs 3,[c] $\chi^2(1)$
Girls							
PTS symptoms	36.12 (1.36)	28.18 (1.08)	22.16 (1.17)	78.91***	14.82***	42.35***	58.71***
Mood disorder symptoms	13.52 (0.63)	10.15 (0.36)	7.93 (0.48)	52.78***	50.82***	43.40***	16.77***
Hopelessness symptoms	5.11 (0.80)	3.56 (0.20)	3.28 (0.26)	5.88*	3.59	5.42*	0.80
Sexting partners	0.89 (0.25)	0.23 (0.07)	0.19 (0.10)	33.77***	6.85**	19,47***	0.13
Oral sex partners	0.64 (0.23)	0.10 (0.03)	0.10 (0.04)	6.39*	5.10*	5.79**	0.00
Intercourse partners	0.52 (0.26)	0.13 (0.05)	0.08 (0.03)	3.27	3.24	3.27	1.68
Alcohol use frequency	1.44 (0.15)	0.71 (0.14)	0.24 (0.10)	75.67***	20.25***	69.51***	18.27***
Binge drink frequency	0.84 (0.16)	0.14 (0.03)	0.09 (0.04)	24.64***	23.90***	24.64***	3.93*
Marijuana use frequency	0.98 (0.20)	0.28 (0.08)	0.09 (0.04)	23.59***	23.12***	22.76***	7.84**
Hard drug use frequency	0.20 (0.09)	0.03 (0.02)	0.00 (0.01)	13.26***	3.10	5.63*	1.94
Physical DV frequency	0.64 (0.21)	0.22 (0.05)	0.08 (0.01)	10.14**	5.26*	7.22**	9.13**
Sexual DV frequency	0.38 (0.16)	0.14 (0.06)	0.13 (0.03)	4.85	4.13*	2.75	0.09
Boys							
PTS symptoms	30.56 (2.22)	23.85 (1.07)	18.73 (1.29)	20.81***	6.21**	13.43***	19.13***
Mood disorder symptoms	9.73 (0.86)	8.42 (0.60)	5.23 (0.38)	46.52***	1.21	25.75***	18.33***
Hopelessness symptoms	4.60 (0.38)	3.45 (0.25)	3.42 (0.25)	21.42***	20.19***	9.28***	0.01
Sexting partners	2.42 (1.50)	0.71 (0.21)	0.14 (0.07)	10.40**	1.25	2.28	7.82**
Oral sex partners	2.40 (1.69)	0.28 (0.09)	0.10 (0.04)	11.91**	1.53	1.82	9.46***
Intercourse partners	1.59 (1.06)	0.20 (0.07)	0.08 (0.04)	2.74	1.86	2.00	2.50
Alcohol use frequency	1.01 (0.19)	0.55 (0.06)	0.29 (0.06)	19.49***	6.39**	12.66***	15.61***
Binge drink frequency	0.57 (0.16)	0.26 (0.07)	0.11 (0.05)	9.90**	4.08*	8.44**	3.82*
Marijuana use frequency	0.78 (0.27)	0.30 (0.09)	0.21 (0.08)	3.99	3.09	3.99*	0.53

Variable	Victim, M (SE)	Minimal exposure, M (SE)	Non-victim, M (SE)	Omnibus $\chi^2(2)$	1 vs 2,[a] $\chi^2(1)$	1 vs 3,[b] $\chi^2(1)$	2 vs 3,[c] $\chi^2(1)$
Hard drug use frequency	0.09 (0.04)	0.05 (0.02)	0.03 (0.03)	1.07	0.78	1.07	0.33
Physical DV frequency	0.60 (0.16)	0.18 (0.04)	0.18 (0.06)	**12.86*****	**8.27****	**11.32*****	0.01
Sexual DV frequency	0.16 (0.06)	0.05 (0.02)	0.11 (0.04)	4.68	2.74	**4.64***	1.62

Note: Boldface indicates statistical significance (

*
$p < 0.05$,

**
$p < 0.01$,

***
$p < 0.001$).

[a] 1 vs 2, victim vs minimal exposure.

[b] 1 vs 3, victim vs non-victim.

[c] 2 vs 3, minimal exposure vs non-victim.

DV, dating violence victimization; PTS, post-traumatic stress.