Parental Supervision, Substance Use, and Physical Victimization: A theoretical test of risky lifestyles/routine activities theory and its relationship to dating violence

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Abstract

The purpose of this study was to test a theoretical model that is based upon the risky lifestyles/routine activities theory, in order to explain why some high risk adolescents are likely to experience physical victimization by a romantic partner in one or more romantic relationships. Specifically I asked whether, in the absence of parental supervision, teens are more likely to engage in substance use, which may put them at risk for being abused by their romantic partners. Based upon previous literature, it was expected that: (1) low parental supervision would be associated with more frequent substance use in dating relationships; (2) more frequent substance use in dating relationships would be associated with more frequent physical victimization by those romantic partners; and (3) adolescents without sufficient parental monitoring would report more physical victimization in their romantic relationships, but this relationship would be fully mediated by substance use in those relationships. Structural equation modeling was used to assess associations among parental monitoring, substance use in up to three romantic relationships, and physical victimization in those relationships using a sample of low-income, service-receiving (N=223) teens enrolled in Project D.A.T.E. Results indicated that without a capable guardian, teenage girls were more likely to abuse drugs and alcohol when involved with romantic partners, which was associated with more frequent physical abuse by those partners. For teenage boys, the hypotheses were not supported.

Keywords: Parental supervision, teen dating violence, physical victimization, substance use

Influence of Substance Use on the Relationship Between Parental Supervision and Physical Victimization

In the past 20 years, intimate partner abuse among teenagers has come to be recognized as an important public health issue. Efforts to explore the correlates of teen dating abuse are critical because such abuse is associated with immediate and potentially long-lasting negative outcomes (e.g. Ackard, Eisenberg, & Neumark-Sztainer, 2007; Banyard & Cross, 2008; Jezl, Molidor, & Wright, 1996). Among the reasons cited for concern are that a good number of those who experience physical abuse are likely to be injured (e.g., Jezl, Molidor, & Wright, 1996). Also, higher levels of depression, drug use, suicidal thoughts, and adverse educational outcomes have all been linked to the experience of teen dating abuse (Ackard et al., 2007; Banyard & Cross, 2008). Victims of abuse are at increased risk of participating in risky sexual behavior, which can lead to unwanted pregnancy and sexually transmitted infections (O'Keefe, 2005; Vézina & Hébert, 2007). Moreover, longitudinal studies have found that experiencing abuse in an adolescent romantic relationship is indicative of abuse in future relationships, which for some is a pattern that persists into adulthood (Bonomi et al., 2012; Bybee & Sullivan, 2005; Cui, Gordon, Ueno, & Fincham, 2013; Halpern, Spriggs, Martin, & Kupper, 2009).

Teen dating abuse is not uncommon. Estimates derived from studies using nationally representative samples are inconsistent, but three studies report that 6.4%, 9.8%, and 12% of teens, respectively, have been victims of physical abuse in the context of a romantic relationship (Hamby, Finkelhor, & Turner, 2012; CDC, 2010; Halpern et al., 2001). These reported rates reflect amounts of abuse that make this issue worthy of attention. Rates of abuse may be even higher among those who are already considered to be at-risk for negative outcomes (Jezl et al., 1996; Malik, Sorenson, & Aneshensel, 1997; Wekerle et al., 2009). For example, in a study of

teen dating violence among child protective services involved youth, nearly two-thirds of the females (63%) and almost half of the males (49%) reported being victimized (i.e., threatened, pushed, punched, etc.) by a romantic partner (Wekerle et al., 2009). In spite of the size of this epidemic, there is a dearth of information available to help policy makers and service providers target and identify those who are most at risk for experiencing teen dating abuse.

In the past few years, research has advanced our understanding of the individual, family, and environmental factors that contribute to teen dating abuse. However, a significant limitation is that the focus has largely been on the risk and protective factors for the perpetration of abuse and not victimization (Brooks-Russell, Foshee, & Ennett, 2013; Gover, 2004). The study of victimization is in its infancy, with the majority of researchers working to establish rates of prevalence, patterns and associations using population-based normative samples. Sorely needed is a more in depth assessment of the unique experiences of youth who, because of their lifestyles, may already be on a path to experience dating violence (Eaton, Davis, Barrios, Brener, & Noonan, 2007). For example, while strong evidence exists to suggest that socio-economic status is a correlate of dating violence, few studies have focused attention on those without economic resources (Capaldi, Knoble, Shortt, & Kim, 2012; Cattaneo & Goodman, 2005; Sonis & Langer, 2008). Additionally, the vast majority of research has focused on predicting the onset of dating abuse or the experience of abuse in one relationship, even though evidence suggests that high-risk adolescents are at increased risk of recurrent physical abuse (Brooks-Russell et al., 2013; Williams, Connolly, Pepler, Craig, & Laporte, 2008). Finally, theoretical explanations for why high-risk adolescents might be susceptible to being victimized by one or more romantic partners are largely unexplored.

The purpose of the current study is to test a theoretical model that is based upon the risky lifestyles/routine activities theory, which seeks to help explain why some high-risk adolescents are likely to experience physical victimization by a romantic partner in one or more relationships. Specifically, I ask whether in the absence of parental supervision, teens are more likely to engage in substance use, which may put them at risk for being abused by their romantic partners. This study is one of the first to use this theoretical perspective to explain the relationships between parenting practices, substance use, and self-reported dating violence victimization in one or more relationships using a sample of high-risk adolescents.

Theoretical Model

The routine activities and lifestyle theories originate in the criminology literature and are used to explain the reasons why some people are more likely to be victims of crime than others. Routine activities theory (Cohen and Felson; 1979) asserts that criminal victimization occurs in the presence of motivated offenders and suitable targets, and in the absence of capable guardians (Cohen & Felson, 1979; Miethe, Stafford, & Long, 1987). The likelihood of these three events happening at the same time and in the same space can be predicted by observing behavior patterns (Cohen & Felson, 1979; Miethe et al., 1987; Popp & Peguero, 2011). Behavior patterns are "recurrent and prevalent activities" that individuals participate in on a regular basis (Cohen & Felson, 1979; Popp & Peguero, 2011, p. 2415).

Similarly, lifestyle theory asserts that risk for victimization is a function of lifestyle (Hindelang, Gottfredson, & Garofalo, 1978; Wilcox, 2010). Proposed by Hindelang, Gottfredson, and Garofalo (1978), it explains that certain groups tend to have lifestyles that expose them to environments (e.g. high crime neighborhoods) in which there are more opportunities for victimization. For example, the extent to which individuals are exposed to

potential predators or are in the presence of capable guardians may be determined by the individual's age or income (Cohen, Kluegel, & Land, 1981; Lauritsen, Laub, & Sampson, 1992). Taken together risky lifestyles/routine activities theory suggests that the conditions necessary for the commission of crime (i.e. a perpetrator, a target, & no guardian) are a function of lifestyles that tend to make it more likely that an individual will be exposed to or in close proximity with potential predators.

It has been suggested that those with risky lifestyles are at greatest risk for victimization because their behaviors make them more visible and accessible to motivated offenders (Schreck, Stewart, & Fisher, 2006; Wilcox, 2010). For example, teens who associate with delinquent peers may be victimized because offenders are more inclined to victimize people they know (Schreck et al., 2006; Wilcox, 2010). Similarly, criminal offenders are more likely to be victimized. Research supports the existence of an association between delinquent behavior (i.e., drug use, alcohol use, and acts of violence) and both property and personal victimization (Felson & Burchfield, 2004; Lauritsen et al., 1992; Schreck et al., 2006; Vézina et al., 2011). Schreck and colleagues (2006) posited that criminal behavior places the offender at higher risk of coming into contact with an angry victim (p. 323). And alcohol use may make one more inclined to provoke violence or take quick offense when in the presence of a potential perpetrator (Felson & Burchfield, 2004; Schreck et al., 2006, p. 323).

Consistent with risky lifestyles/routine activities theory, the heterogeneity model suggests that an individual's characteristics, separate and apart from each occurrence of victimization, may link early and later victimization experiences (Carbone-Lopez, Rennison, & Macmillan, 2011, p. 323; Halpern et al., 2009). It may be that some individuals have lifestyles, routine activities, or social environments that persist, which leads to continued exposure to environments that leave

these individuals vulnerable to potential offenders or without capable guardians (Carbone-Lopez et al., 2011, p. 323; Halpern et al., 2009, p. 509). For instance, research suggests that those adolescents with low self control tend to continue on paths (e.g. delinquency and associating with delinquent peers) that increase the likelihood of revictimization (Schreck et al., 2006). Schreck and colleagues (2006) surmised that those with low self-control would be less likely to change their participation in "risky activities" in response to earlier victimization (p. 336).

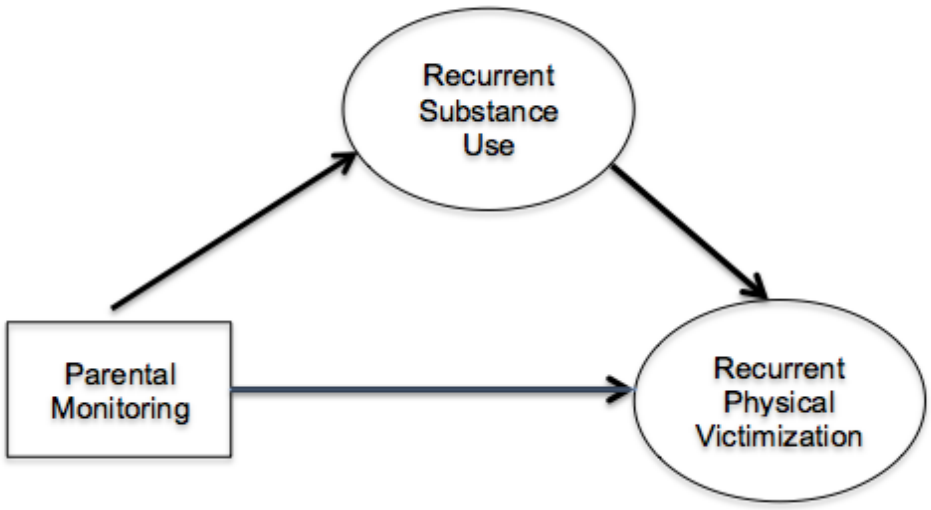
Few studies have applied risky lifestyles/routine activities theory to explain intimate partner abuse. In a test of whether routine activities with delinquent peers increases the likelihood of experiencing dating violence victimization, Vezina and colleagues (2011) found that a risky lifestyle mediated the association between deviant peer affiliation and dating violence victimization for girls. They surmised that spending time with delinquent peers offered more opportunities for girls to participate in risky activities (e.g. risky sexual behavior, drug and alcohol use, and delinquent behavior), which increased the opportunity for them to meet and bond with antisocial boys who may abuse them (Vézina et al., 2011, p. 820).

Similarly, Gover (2004) tested whether risk-taking behavior (drug and alcohol abuse, drunk driving, and sexual promiscuity) mediated the effects of social ties and emotional states on the likelihood of experiencing teen dating victimization. She found that health related risk taking increased the likelihood of experiencing violent victimization (Gover, 2004). Furthermore, in a study to determine whether there were latent trajectory classes of teenage dating violence victimization, Brooks-Russell and colleagues (2013) hypothesized that situational variables would distinguish those who experienced dating violence from those who did not. Based upon lifestyle/routine activity theory, they argued that substance use and low parental monitoring were "situational vulnerabilities" because they created circumstances that make dating violence more

likely (Brooks-Russell et al., 2013). They found that low parental monitoring and substance use independently predicted whether youth experienced dating violence victimization. While these studies expand the literature in important ways, none of them directly examined the relationship among parental supervision, substance use while in a romantic relationship and physical victimization in that same relationship.

In sum, lifestyles/routine activities theory would suggest that teens participating in risky behavior (i.e. abusing alcohol and drugs) are more likely to be physically victimized by romantic partners because their activities place them in situations where there is low parental involvement, they appear to be vulnerable targets, and they are in the presence of motivated offenders (Gover, 2004). An assessment of the viability of our theoretical model (Figure 1) requires answers to the following questions: (1) is substance use more common when parents are absent?; (2) is physical victimization more likely to occur when individuals have used alcohol or drugs?; (3) is lack of supervision associated with physical victimization?

Figure 1: Theoretical Model



Is Substance Use More Likely to Occur When Parents Are Absent?

There is no universal definition for parental monitoring, but it generally refers to parents' familiarity with their child's friends, the parents of their friends, how their children spend their money, and how they spend their time when they are not with family (DiClemente, Wingood, Crosby, Sionean, et al., 2001). Studies refer to parental monitoring as either a protective or risk factor depending on the context. It is considered to be a protective factor in that adequate parental monitoring can reduce the likelihood that teens experience negative outcomes (Borawski, Ievers-Landis, Lovegreen, & Trapl, 2003; DiClemente, Wingood, Crosby, Sionean, et al., 2001). When parents fail to adequately supervise their kids, research suggests that youth are at risk for experiencing negative outcomes (Simons, Lin, & Gordon, 1998). For instance, several studies have found that the extent to which parents monitor their children can contribute to a number of adolescent problem behaviors including risky sexual behavior, general delinquency and the perpetration of violence (e.g. Capaldi et al., 2012; DiClemente, Wingood, Crosby, Cobb, et al., 2001; Foshee et al., 2011; Hartinger-Saunders, Rine, Wieczorek, & Nochajski, 2012; Xiaoming Li, Feigelman, & Stanton, 2000).

Activity conducive to deviance happens in the absence of parental monitoring (Osgood & Anderson, 2004; Simons et al., 1998). In support of this theory, studies have shown that risky behavior occurs in social settings, where perhaps teens are free to do what they want without fear of authority (Ary, Duncan, Duncan, & Hops, 1999; Chein, Albert, O'Brien, Uckert, & Steinberg, 2011; Gover, 2004). Parental monitoring has been shown to be a particularly strong protector against alcohol and drug use (DiClemente, Wingood, Crosby, Sionean, et al., 2001; Simons et al., 1998; Tharp & Noonan, 2012). For example, a recent meta-analytic review of 25 independent samples involving over 35,000 adolescents found low parental monitoring to be a

reliable predictor of marijuana use (Lac & Crano, 2009). While these findings are mixed, strong evidence suggests that the association between monitoring and substance use may differ according to gender (Brooks-Russell et al., 2013; Griffin, Botvin, Scheier, Diaz, & Miller, 2000). For instance, Griffin and colleagues (2000) surmised that the effects of low parental monitoring and substance use would be higher for boys because gender role socialization processes indicate that boys are less monitored and at greater risk of being influenced by peer pressure to participate in antisocial behavior relative to girls (p. 175).

The linkage between parental monitoring and substance use may be even stronger among youth who are already at risk for negative outcomes. For example, in a study of low-income African-American males between the ages of 9 and 17, Li and colleagues (2000) determined that low levels of parental monitoring were associated with smoking cigarettes, alcohol use and drug trafficking. Among youth enrolled in alternative high schools, high levels of parental monitoring predicted significantly less use of alcohol, marijuana, downers, cocaine, PCP, LSD and prescription drugs (Clark, Shamblen, Ringwalt, & Hanley, 2012). Consequently, strong evidence exists to suggest that when parents are not present, substance use is more likely to occur.

Does Substance Abuse Place Teens at Risk for Physical Victimization?

Existing literature supports the assertion that the use of substances including alcohol, marijuana and hard drugs is associated with experiencing physical abuse in a romantic relationship (e.g., Foshee, Benefield, Ennett, Bauman, & Suchindran, 2004; D. E. Howard, Wang, & Yan, 2007; Vézina & Hébert, 2007). A number of theories have been put forth in order to explain this linkage. One such explanation is that substances may undermine a person's ability to perceive risks, thus placing the individual at risk for victimization (Shorey, Stuart, &

Cornelius, 2011, p. 543). Studies supporting this theory show that substance use temporally precedes incidents of physical abuse between romantic partners (Epstein-Ngo et al., 2013; Nowotny & Graves, 2013; Stuart et al., 2013).

Similarly, it may be that "the psychopharmacological effects of substances, including impaired cognitive functioning, increased arousal, and irrational behavior, contribute to violence" by increasing the likelihood that youth will place themselves in risky situations that they would otherwise avoid (Temple & Freeman, 2011, p. 703), or the relationship between substance use and dating violence may be tied to the notion that risky behaviors often occur at similar times and proximities (O'Keefe, 2005; Temple & Freeman, 2011). Research demonstrates that problem behaviors such as delinquency and aggression outside of a romantic relationship often occur together (Foshee et al., 2004; Gorman-Smith, Tolan, Sheidow, & Henry, 2001). Other studies support the assertion that substance use is linked with physical victimization through associations with deviant or aggressive peers and romantic partners in that associating with delinquents increases the risk of victimization (D. Howard, Qiu, & Boekeloo, 2003; Vézina & Hébert, 2007).

Furthermore, research suggests that there is an association between substance use and victimization across partners (Cole, Logan, & Shannon, 2008). Drinking alcohol has been found to be related to both the onset and continuation of physical dating violence (Foshee et al., 2004). In addition , studies of young adults suggest that current substance abuse (including alcohol and drug abuse) is related to revictimization (Kuijpers, van der Knaap, & Lodewijks, 2011). From this research it seems clear that it is important to determine whether persistent substance use contributes to consistent abuse; yet no study of adolescents has examined a model with substance use and physical victimization in more than one relationship.

Does Physical Victimization Occur in the Absence of Parental Monitoring?

A number of studies have shown that parental monitoring reduces the likelihood that youth will experience teen dating abuse by an intimate partner. For example, Howard, Qiu and Boekeloo (2003) demonstrated that strong perceptions of parental monitoring among youth aged 12-17 significantly reduced the odds of being a victim of dating violence. Other research indicates that parental monitoring is quite a robust predictor of dating violence (Capaldi et al., 2012; Leadbeater, Banister, Ellis, & Yeung, 2008). However, few studies have tried to explain *how* parental monitoring affects the likelihood of experiencing dating abuse. In particular, one study showed that parental monitoring indirectly influences the likelihood of experiencing abuse through its effect on antisocial (including substance use) behavior (Lavoie et al., 2002). Unfortunately, this study was limited to boys and asked whether youth had ever engaged in substance use in their lives. Research is needed to determine whether substance use *during a romantic relationship* may serve as a potential mediator of the relationship between parental monitoring and dating abuse.

The Current Study

The current study investigated the extent to which the association between parental monitoring and physical victimization can be explained by substance use (including alcohol and drug abuse). From the aforementioned theory and research, I have derived the following hypotheses: (1) adolescents without adequate parental monitoring were expected to report more frequent substance use while involved in one or more romantic relationships; (2) adolescents who reported more frequent substance use were expected to report more physical victimization in one or more romantic relationships; and (3) adolescents without adequate parental monitoring

were expected to report more physical victimization in their romantic relationships, but this relationship would be fully mediated by substance use in those relationships.

Method

Participants

Participants included 223 teens (57.85% girls) enrolled in Project D.A.T.E., a two-wave longitudinal study of dating violence among at-risk teens. To be eligible for the study, participants had to be between the ages of 13 and 18, (M_{age} = 16.46, SD = 1.61 at wave I), and be the recipients of community-based (e.g., foster care or alternative schooling) or low-income related (e.g., free or reduced lunch) services. Approximately 86% of the sample reported receiving free or reduced lunch and 86% of the sample reported receiving some sort of community-based social service for at-risk teens. Additionally, eligible teens reported being in at least one romantic relationship for one month or longer.

Participants reported being from a number of ethnic backgrounds (21.52% White, 61.43%; Black, 2.24%; Latino, 13.45%; Multi-ethnic; and 1.35% other), and only a few of them reported living in traditional two-parent households at Wave I. For example, participants reported living with one biological single parent (33.6%); with a biological parent and that parent's significant other (18.3%); with both biological parents (12.1%); in a foster or group home (13.9%); or in an arrangement categorized as "other" (21.9%), which included those who lived primarily with extended family. Of those who participated in Wave I, 95% (N = 210) agreed to participate in Wave II (59.05% girls, 40.95% boys, M_{age} = 17.48, SD = 1.63). The most common reason for non-participation was inability to get into contact with the participant and his or her guardian (N = 4). Additionally, three participants were incarcerated in facilities

where they could not be interviewed. Moreover, three participants declined to participate because they were working and three participants were simply unwilling to continue with the study.

Procedure

Adolescents were recruited with the help of several agencies that provide services to at-risk youth in Central Virginia (e.g., Teen Health Centers, the Virginia Department of Juvenile Justice) and by distributing flyers. Eligible youth participated in two two-hour in-person structured interviews that took place approximately 13 months a part. Participants were compensated in the amount of $50 for each interview. Youth chose the location of their interviews, the majority of which took place in their homes. Prior to the start of the interview, written consent from parents and written assent from youth were obtained.

Each participant began the interview by providing demographic information including family and school experiences. However, the majority of the interview was spent discussing the participants' experiences within their romantic relationships.

Measures

Parental Monitoring. Parental monitoring refers to the participants' perceptions of the extent to which a parent or guardian has been aware of their activities outside of the home over the past 5 years. This construct was assessed using Small & Kerns' (1993) 10-item Parental Monitoring (PM) Scale at Wave I. For each item, participants reported on how often their parents monitored their behavior (e.g., "If I'm going to be home late, I'm expected to call my parent(s) (guardian) to let them know"). Responses ranged from 1: *Almost Never or Never* to 5: *Almost Always or Always* and the score for each item was averaged to create a mean score ($\alpha = 0.87$).

Substance Use. Substance use refers to participants' use of alcohol or illegal drugs within the context of a romantic relationship. Substance use by the participant was assessed in both Waves I and II using a 4-item scale that asked how often he or she used substances (e.g., cigarettes, alcohol, marijuana, and hard drugs) during the target romantic relationship. Responses ranged from 0: *Never* to 3: *10+ days per month* and mean scores were created for up to three romantic relationships by averaging the scores for each item. Mean scores represent participants' reported substance use within their first, second or third romantic relationship.

Physical Victimization. Physical victimization refers to physical abuse at the hands of a romantic partner during the course of the target relationships. Physical abuse by a partner was assessed in Waves I and II using the Physical Assault subscale of the CTS-2 (Strauss et al., 1996). Participants were asked to report how often 12 forms of physical abuse (e.g. pushing, shoving, kicking, etc.) occurred in the course of the relationship during a disagreement. Responses ranged from 0: *Never* to 3: *10+ times* and mean scores for up to three relationships were created by averaging the scores for each item. Mean scores represent participants' reported experience of physical victimization within their first, second or third romantic relationships.

Analytic Strategy

All statistical analyses unless otherwise noted were conducted in Stata version 13 (*Stata*Corp LP, College Station, TX). Data were examined for the presence of outliers and tested for normality. Measures of physical victimization were determined to be not normally distributed. To prevent violations of assumptions these data were trimmed at two standard deviations above the mean to bring the levels of skewness within acceptable levels. Missing values were present in the data due to attrition between Waves I and II and because not all

participants reported having multiple romantic relationships. To address the problem of missing data, full information maximum likelihood (FIML) was employed.

Structural equation modeling (SEM) was used to test the relationships among the variables. SEM is a statistical tool that allows one to specify and test a variety of more complicated models through the use of latent variables. Following the recommendation of Kline (2011), I report model chi-square values, the Steiger-Lind root mean square error of approximation (RMSEA) index, and the Bentler comparative fit index (CFI). Models consistent with the data will yield nonsignificant chi-square values (Kline, 2011). However, this value alone is an inadequate indication of whether a model is a correct fit. Consequently, approximate fit indices are the preferred means to assess models. Hu & Bentler (1999) indicate that an RMSEA of < 0.06 is a model with a good fit and a model that is an acceptable fit has a CFI $\geq$ 0.95.

Results

Descriptive Analyses

Table 1 presents the means and standard deviations by gender.

Physical Victimization. Over half of this at-risk sample (56.95%, 74 girls and 53 boys) reported being physically abused by at least one romantic partner and just over one third (34.08%, 40 girls and 36 boys) reported being abused by more than one such partner. Chi-square analyses revealed that the boys were just as likely as the girls to be physically abused by one or more romantic partners.

Substance Use. Similarly, 54.26% of the sample (65 girls and 56 boys) had used alcohol or drugs while involved in at least one romantic relationship and 35% (36 girls and 42

boys) had done so in more than one romantic relationship. Likewise, boys and girls were just as likely to use illegal substances while involved in at least one romantic relationship. However, boys were significantly more likely than girls to use alcohol or drugs in more than one romantic relationship, $\chi^2(1) = 6.27$, $p = .009$.

Parental Monitoring. A two-sample *t* test of gender differences with respect to parental monitoring revealed that girls experience significantly more monitoring than boys, $t(221) = 3.67$, $p = .001$. Based upon these analyses, separate models for boys and girls were used to examine whether gender moderated the relationships among the variables.

Preliminary Analyses

Table 2 presents the bivariate correlations among the study variables. The correlation matrices are separated by gender with girls above the diagonal and boys below it. This table illustrates three main findings. First, parental monitoring of girls is significantly negatively correlated with substance use and physical victimization as expected. Second, for boys parental monitoring is significantly negatively correlated with substance use in each of the first three relationships and with physical victimization with the first partner, but not with subsequent partners. Third, substance use by boys does not appear to be significantly correlated with physical victimization.

Table 1 Descriptive Statistics

	Teen Girls		Teen Boys		Total	
Measure	n	M (SD)	n	M (SD)	n	M (SD)
Age	129	16.66 (1.64)	94	16.34 (1.55)	223	16.46 (1.61)
Parental Monitoring	129	4.04 (.81)	94	3.63 (.81)	223	3.87 (.83)
Substance Use First	125	.22 (.48)	92	.36 (.63)	217	.28 (.55)
Substance Use Second	112	.30 (.51)	88	.46 (.65)	200	.37 (.58)
Substance Use Third	80	.43 (.61)	72	.61 (.70)	152	.52 (.66)
Physical Victimization First	125	.17 (.28)	94	.13 (.23)	219	.15 (.26)
Physical Victimization Second	112	.13 (.24)	90	.15 (.24)	202	.14 (.24)
Physical Victimization Third	80	.10 (.19)	73	.11 (.18)	153	.10 (.18)

Table 2 Bivariate Correlations Among Study Variables

Measure	1	2	3	4	5	6	7	8
1. Age	–	-.29*	.13	.19*	.26*	.06	.17	.14
2. Parental Monitoring	-.37*	–	-.30*	-.37*	-.43*	-.23*	-.29*	-.24*
3. Substance Use First	.17	-.40*	–	.57*	.57*	.28*	.20*	.25*
4. Substance Use Second	.24*	-.34*	.72*	–	.73*	.12	.38*	.41*
5. Substance Use Third	.39*	-.58*	.61*	.61*	–	.20	.33*	.31*
6. Physical Victimization First	.17	-.21*	.12	.04	.15	–	.36*	.37*
7. Physical Victimization Second	.20	-.18	.13	.14	.15	.53*	–	.27*
8. Physical Victimization Third	.25*	-.15	.06	.06	.17	.52*	.43*	–

Inter-correlations for teen girls (n = 129) are presented above the diagonal, and the inter-correlations for teen boys (n = 94) are presented below the diagonal.

Measurement Model Analyses

Model development began by using confirmatory factor analysis to establish models for the total sample and for each gender-based sample. These analyses tested the relationships between the latent constructs and among the observed variables and their respective latent constructs for each group. Model modifications were made based upon the assessment of the goodness-of-fit indices, theoretical considerations, and Lagrange multiplier (LM) tests, which

indicated the extent to which model fit would be improved if the pertinent parameter were to be added.

Results indicated that all measured variables loaded significantly ($p < .001$) (see Table 3). Furthermore, the measurement models achieved acceptable fit: total sample χ^2 (5 , N=223) = 5.52 , p = .356, RMSEA = 0.02, CFI = 0.998; female sample χ^2 (5 , N=129) = 7.13 , p = .211, RMSEA = 0.06, CFI = 0.987; male sample χ^2 (5 , N=94) = 1.67, p = .898 , RMSEA = 0.00, CFI = 1.00. This fit was achieved after adding pairs of correlated error residuals between SUR1 and PABP1, SUR2 and PABP2 and SUR3 and PABP3. These additions were based upon the results of the LM test and these connections represent relationships where the participant was involved with the same partner. Although, these parameters were not all significant, they were retained in this and all subsequent models for the sake of theoretical consistency.

Table 3 Factor Loadings for Indicators in CFA Models

Indicator	Total Sample (N = 223)	Female Sample (N = 129)	Male Sample (N = 94)
Recurrent Substance Use (α = 0.84)			
Substance Use First	0.77	0.70	0.84
Substance Use Second	0.86	0.86	0.84
Substance Use Third	0.78	0.86	0.73
Recurrent Physical Victimization (α = 0.66)			
Physical Victimization First	0.69	0.58	0.79
Physical Victimization Second	0.62	0.56	0.68
Physical Victimization Third	0.60	0.62	0.62
Errors			
Cov RSU & RPV	0.30**	0.54***	0.12
SUR 1 & PVP1	0.14	0.19	0.11
SUR2 & PVP2	0.24*	0.30*	0.16
SUR3 & PVP3	0.08	-0.15	0.17

Standardized coefficients, SUR = Substance Use, PVP = Physical Victimization By Partner
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Structural Model Analyses

Next, structural models for the total sample and for each gender were specified in which parental monitoring was linked to recurrent substance use and recurrent physical victimization and age was linked to parental monitoring as a control. The total number of romantic relationships was also considered as a control variable, but was excluded because preliminary analyses revealed it was not significantly associated with substance use or physical victimization. Of the three hypothesized models, only the model for the female sample achieved an excellent fit: total sample χ^2 (15 , N=223) = 23.47, p = .075, RMSEA = 0.05, CFI = 0.977; female sample χ^2 (15 , N=129) = 11.16, p = .741, RMSEA = 0.00, CFI = 1.000; male sample χ^2 (15 , N=94) = 22.82, p = .088, RMSEA = 0.07, CFI = .960.

In light of these results , I tested the significance of the paths in the hypothesized model for the male sample. While there is evidence to suggest a significant relationship between parental monitoring and substance use (β = -0.50, p < .001) and a marginally significant direct relationship between parental monitoring and recurrent physical victimization (β = -0.27, p = .053), there is no such relationship between recurrent substance use and recurrent physical victimization (β = -0.01, p =.968). Taking into account the lack of correlation among the pertinent variables, the poor fit of the hypothesized model, and the weak (at best) statistical relationships among the relevant variables, the decision was made to cease analyses involving the male sample. From this point forward the analyses will focus exclusively on the female sample, the final model for which is presented in Figure 2.

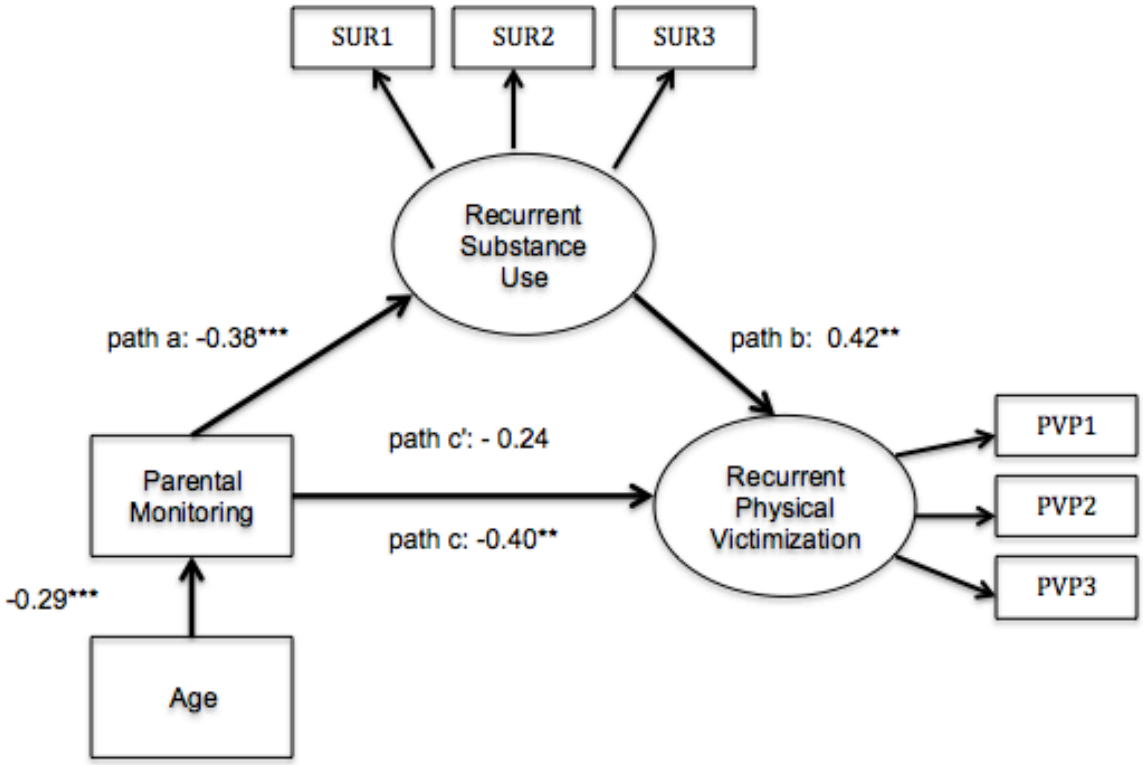
Mediation Analyses

I examined whether repeated substance use mediated the relationship between parental monitoring and recurrent physical victimization. Steps for conducting mediation analysis as

explained by Baron & Kenny (1986) and Judd & Kenny (1981) include demonstrating: (1) that the independent variable is significantly associated with the dependent variable (path c); (2) that the independent variable is significantly associated with the mediator (path a); (3) that the mediator affects the dependent variable (path b); and (4) that there is an indirect effect such that the effect of the independent variable on the dependent variable is nonexistent when controlling for the mediator (path c').

Figure 2 presents the results for the female sample. After accounting for age as a control, the total effect (path c) of parental monitoring on recurrent abuse was -0.40 ($p = .003$) and the direct effect (path c') was -0.24 ($p = .063$). The effect for mediation was significant and was confirmed using the Sobel test, $z = -3.76$, SE, $p < .001$.

Figure 2: Final Model For Adolescent Girls



Standardized coefficients, Overall R2 = 0.08
PVP = Physical Victimization (Relationships 1, 2, or 3); SUR = Substance Use (Relationships 1, 2, or 3)
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$
NOTE: Connections between the following errors were omitted for space: SUR1 & PVP1; SUR2 & PVP2; SUR3 & PVP3

Discussion

The purpose of this study was to test a theoretical model that is based upon the risky lifestyles/routine activities theory, in order to explain why some high risk adolescents are likely to experience physical victimization by a romantic partner in one or more romantic relationships. Specifically, I asked whether less parental supervision might predict greater teen substance use, which may put them at risk for being abused by their romantic partners. The results indicated

that without an adequate guardian, teenage girls were more likely to abuse drugs and alcohol when involved with romantic partners, which was associated with more frequent physical abuse by those partners. For teenage boys, the hypotheses were not supported.

Summary of Results

This study is one of the first to use the risky lifestyles/routine activities theory to explain the relationships between parenting practices, substance use, and self-reported dating violence victimization in one or more relationships using a sample of high risk adolescents. Testing the model involved answering three main questions: (1) whether low parental monitoring was associated with more frequent substance use while involved in one or more romantic relationships; (2) whether teens who engaged in frequent substance use were more likely to experience physical victimization by one or more romantic partners; and (3) whether controlling for substance use mediates the association between parental monitoring and physical victimization by their romantic partners.

Parental Monitoring and Substance Use. As expected, teens without adequate parental monitoring reported more frequent alcohol and drug use while involved in one or more romantic relationships. These findings are consistent with literature suggesting that parental supervision is a particularly strong protector against alcohol and drug use (DiClemente, Wingood, Crosby, Sionean, et al., 2001; Simons et al., 1998; Tharp & Noonan, 2012). Consequently, educating parents about the importance of supervising even their older teenagers may be an important means by which to reduce their substance use.

Substance Use and Physical Victimization. Results revealed that the association between substance use and physical victimization differed according to gender. Specifically, findings suggest a significant relationship between substance use and physical victimization for

girls, but not for boys. While the literature is inconsistent, studies reporting gender differences have found that the associations between substance use and being victims of physical abuse were stronger for girls as compared with boys (Capaldi et al., 2012; Foshee et al., 2004; Haynie et al., 2013). Accordingly, it may be that teenage boys in this study are in some way less affected by substance use during their romantic relationships.

It is difficult to speculate about alternative explanations for mechanisms by which parental monitoring is associated with physical victimization for boys because so few studies focus on boys as victims. While the literature suggests that girls most often perpetrate abuse, the vast majority of studies focus on girls as victims because they are most likely to be injured as a result of abuse (Hamby et al., 2012). Nevertheless, physical abuse results in significant negative outcomes for both boys and girls (Ackard et al., 2007; Banyard & Cross, 2008). Therefore, additional research is needed to examine the correlates of dating violence victimization for boys.

Parental Monitoring and Physical Victimization. Although, findings suggested that low parental monitoring put both boys and girls at risk of experiencing physical victimization, substance use was not a mediator of this relationship for boys.

Theoretical Implications

Our results suggest that risky lifestyles/routine activities theory is an effective means by which to explain the likelihood of experiencing physical victimization among high-risk youth. Indications are that, at least for girls, participation in risky lifestyles is likely to occur in the absence of a capable guardian, which makes youth suitable targets for potential predators. In particular, low parental monitoring was associated with more frequent alcohol and drug use when girls were involved in one or more romantic relationships, which increased the frequency of physical victimization in those romantic relationships. Furthermore, while it was not possible

to determine whether changes in risky behavior were associated with persistence or desistence in physical victimization over time, our findings are not inconsistent with the heterogeneity model. The heterogeneity model proposes that an individual's characteristics link early and later victimization experiences. The positive association between recurrent substance use and recurrent physical victimization indicates that it may be that so long as youth maintain their risky lifestyles, they will continue to be at increased risk of being victimized by their partners.

Limitations and Future Research

This investigation advances our understanding of how parental monitoring affects the likelihood of experiencing dating victimization using risky lifestyles/routine activities theory. However, a few limitations qualify our conclusions and provide a basis for future research. First, our sample is drawn from a largely suburban area, which may mean that our results are less generalizable to youth in other localities. Nonetheless, the findings are consistent with those using larger and contextually different samples (Brooks-Russell et al., 2013; Gover, 2004; Vézina & Hébert, 2007).

Second, direct comparison of this study to others may be difficult because of the differences in the way that substance use is measured. Few studies limited questions regarding substance use to periods when youth were involved in dating relationships. While the manner of questioning used in the current study is an improvement upon those studies that ask about substance use without the benefit of context, the inferences that can be drawn from this and similar studies are limited. Specifically, we cannot be sure of the temporal aspects of the abuse. For example, we cannot say for certain whether the substance use took place before, during or after the conflict that led to the abuse. Therefore, we cannot determine whether the substance use precipitated the abuse or whether it was used as a means to cope with the abuse after the fact.

Such questions are important because the answers could have an impact on the nature of interventions used to reduce the incidences of abuse.

Finally, although the findings are consistent with previous literature, the size of the overall effect in this study is small. In addition to substance use, future research should simultaneously test other potential mediators based upon the risky lifestyles/routine activities theory. Delinquent behaviors (e.g., substance use and generalized aggression) tend to co-occur (Foshee et al., 2004; Gorman-Smith et al., 2001; O'Keefe, 2005), and research suggests that risk factors have cumulative effects such that the odds of experiencing dating violence increase as the number of risk factors increases (Eaton et al., 2007). Consequently, it stands to reason that high-risk adolescents like those in the current study may have several risk factors that make it more likely that they will experience physical abuse. Examining the extent to which risk factors work in concert in order to increase the likelihood of being victimized is an important means by which to further explore the effect of having a risky lifestyle. Nevertheless, this study is among those that take the first steps in the right direction towards reducing the impact of intimate partner abuse among teenagers.

References

Ackard, D. M., Eisenberg, M. E., & Neumark-Sztainer, D. (2007). Long-term impact of adolescent dating violence on the behavioral and psychological health of male and female youth. *The Journal of Pediatrics*, *151*(5), 476–81. doi:10.1016/j.jpeds.2007.04.034

Ary, D. V., Duncan, T. E., Duncan, S. C., & Hops, H. (1999). Adolescent problem behavior: the influence of parents and peers. *Behaviour Research and Therapy*, *37*(3), 217–30. Retrieved from http://www.ncbi.nlm.nih.gov/pubmed/15769195

Banyard, V. L., & Cross, C. (2008). Consequences of teen dating violence: understanding intervening variables in ecological context. *Violence against Women*, *14*(9), 998–1013. doi:10.1177/1077801208322058

Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, *51*(6), 1173–82. Retrieved from http://www.ncbi.nlm.nih.gov/pubmed/3806354

Bonomi, A. E., Anderson, M. L., Nemeth, J., Bartle-Haring, S., Buettner, C., & Schipper, D. (2012). Dating violence victimization across the teen years: abuse frequency, number of abusive partners, and age at first occurrence. *BMC Public Health*, *12*(1), 637. doi:10.1186/1471-2458-12-637

Borawski, E. a., Ievers-Landis, C. E., Lovegreen, L. D., & Trapl, E. S. (2003). Parental monitoring, negotiated unsupervised time, and parental trust: the role of perceived parenting practices in adolescent health risk behaviors. *Journal of Adolescent Health*, *33*(2), 60–70. doi:10.1016/S1054-139X(03)00100-9

Brooks-Russell, A., Foshee, V. A., & Ennett, S. T. (2013). Predictors of latent trajectory classes of physical dating violence victimization. *Journal of Youth and Adolescence*, *42*(4), 566–80. doi:10.1007/s10964-012-9876-2

Bybee, D., & Sullivan, C. M. (2005). Predicting re-victimization of battered women 3 years after exiting a shelter program. *American Journal of Community Psychology*, *36*(1-2), 85–96. doi:10.1007/s10464-005-6234-5

Capaldi, D. M., Knoble, N. B., Shortt, J. W., & Kim, H. K. (2012). A Systematic Review of Risk Factors for Intimate Partner Violence: Table. *Partner Abuse*, *3*(2).

Carbone-Lopez, K., Rennison, C. M., & Macmillan, R. (2011). The Transcendence of Violence Across Relationships: New Methods for Understanding Men's and Women's Experiences of Intimate Partner Violence Across the Life Course. *Journal of Quantitative Criminology*, *28*(2), 319–346. doi:10.1007/s10940-011-9143-9

Cattaneo, L. B., & Goodman, L. a. (2005). Risk factors for reabuse in intimate partner violence: a cross-disciplinary critical review. *Trauma, Violence & Abuse*, *6*(2), 141–75. doi:10.1177/1524838005275088

Chein, J., Albert, D., O'Brien, L., Uckert, K., & Steinberg, L. (2011). Peers increase adolescent risk taking by enhancing activity in the brain's reward circuitry. *Developmental Science*, *14*(2), F1–10. doi:10.1111/j.1467-7687.2010.01035.x

Clark, H. K., Shamblen, S. R., Ringwalt, C. L., & Hanley, S. (2012). Predicting high risk adolescents' substance use over time: the role of parental monitoring. *The Journal of Primary Prevention*, *33*(2-3), 67–77. doi:10.1007/s10935-012-0266-z

Cohen, L. E., & Felson, M. (1979). Social Change and Crime Rate Trends: A Routine Activity Approach. *American Sociological Review*, *44*(4), 588–608.

Cohen, L. E., Kluegel, J. R., & Land, K. C. (1981). Social Inequality and Predatory Criminal Victimization: An Exposition and Test of a Formal Theory. *American Sociological Review*, *46*(5), 505–524.

Cole, J., Logan, T., & Shannon, L. (2008). Women's Risk for Revictimization by a New Abusive Partner: For What Should We Be Looking? *Violence and Victims*, *23*(3), 315–330. doi:10.1891/0886-6708.23.3.315

Cui, M., Gordon, M., Ueno, K., & Fincham, F. D. (2013). The Continuation of Intimate Partner Violence From Adolescence to Young Adulthood. *Journal of Marriage and Family*, *75*(April), 300–313. doi:10.1111/jomf.12016

DiClemente, R. J., Wingood, G. M., Crosby, R. C., Cobb, B. K., Harrington, K., & Davies, S. L. (2001). Parent-adolescent communication and sexual risk behaviors among African

American adolescent females. *The Journal of Pediatrics*, *139*(3), 407–12. doi:10.1067/mpd.2001.117075

DiClemente, R. J., Wingood, G. M., Crosby, R., Sionean, C., Cobb, B. K., Harrington, K., … Oh, M. K. (2001). Parental Monitoring Association with Adolescnts' Risk Behaviors. *Pediatrics*, *107*(6), 1363–1368.

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 U.S. high school students. *Journal of Interpersonal Violence*, *22*(5), 585–602. doi:10.1177/0886260506298831

Epstein-Ngo, Q. M., Cunningham, R. M., Whiteside, L. K., Chermack, S. T., Booth, B. M., Zimmerman, M. a, & Walton, M. a. (2013). A daily calendar analysis of substance use and dating violence among high risk urban youth. *Drug and Alcohol Dependence*, *130*(1-3), 194–200. doi:10.1016/j.drugalcdep.2012.11.006

Felson, R. B., & Burchfield, K. B. (2004). Alcohol and The Risk of Physical and Sexual Assault Victimization. *Criminology*, *42*(4), 837–860.

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), 1007–16. doi:10.1016/j.ypmed.2004.04.014

Foshee, V. A., Reyes, H. L. M., Ennett, S. T., Suchindran, C., Mathias, J. P., Karriker-Jaffe, K. J., … Benefield, T. S. (2011). Risk and protective factors distinguishing profiles of adolescent peer and dating violence perpetration. *The Journal of Adolescent Health : Official Publication of the Society for Adolescent Medicine*, *48*(4), 344–50. doi:10.1016/j.jadohealth.2010.07.030

Gorman-Smith, D., Tolan, P. H., Sheidow, A. J., & Henry, D. B. (2001). Partner Violence and Street Violence among Urban Adolescents: Do the Same Family Factors Relate? *Journal of Research on Adolescence*, *11*(3), 273–295. doi:10.1111/1532-7795.00013

Gover, A. R. (2004). Risky lifestyles and dating violence: A theoretical test of violent victimization. *Journal of Criminal Justice*, *32*(2), 171–180. doi:10.1016/j.jcrimjus.2003.12.007

Griffin, K. W., Botvin, G. J., Scheier, L. M., Diaz, T., & Miller, N. L. (2000). Parenting practices as predictors of substance use, delinquency, and aggression among urban minority youth: moderating effects of family structure and gender. *Psychology of Addictive Behaviors : Journal of the Society of Psychologists in Addictive Behaviors*, *14*(2), 174–84. Retrieved from http://www.ncbi.nlm.nih.gov/pubmed/10860116

Halpern, C. T., Oslak, S. G., Young, M. L., Martin, S. L., & Kupper, L. L. (2001). Partner violence among adolescents in opposite-sex romantic relationships: findings from the National Longitudinal Study of Adolescent Health. *American Journal of Public Health*, *91*(10), 1679–85. Retrieved from

http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=1446854&tool=pmcentrez&rendertype=abstract

Halpern, C. T., Spriggs, A. L., Martin, S. L., & Kupper, L. L. (2009). Patterns of intimate partner violence victimization from adolescence to young adulthood in a nationally representative sample. *The Journal of Adolescent Health : Official Publication of the Society for Adolescent Medicine*, *45*(5), 508–16. doi:10.1016/j.jadohealth.2009.03.011

Hamby, S., Finkelhor, D., & Turner, H. (2012). Teen dating violence: Co-occurrence with other victimizations in the National Survey of Children's Exposure to Violence (NatSCEV). *Psychology of Violence*, *2*(2), 111–124. doi:10.1037/a0027191

Hartinger-Saunders, R. M., Rine, C. M., Wieczorek, W., & Nochajski, T. (2012). Family Level Predictors of Victimization and Offending Among Young Men: Rethinking the Role of Parents in Prevention and Interventions Models. *Children and Youth Services Review*, *34*(12), 2423–2432. doi:10.1016/j.childyouth.2012.08.017

Haynie, D. L., Farhat, T., Brooks-Russell, A., Wang, J., Barbieri, B., & Iannotti, R. J. (2013). Dating Violence Perpetration and Victimization Among U.S. Adolescents: Prevalence, Patterns, and Associations With Health Complaints and Substance Use. *The Journal of Adolescent Health : Official Publication of the Society for Adolescent Medicine*. doi:10.1016/j.jadohealth.2013.02.008

Hindelang, M. J., Gottfredson, J., & Garofalo, J. (1978). *Victims of Personal Crime*. Cambridge, MA: Ballinger.

Howard, D. E., Wang, M. Q., & Yan, F. (2007). Psychosocial Factors Associated with Reports of Physical Dating Violence Among US Adolescent Female. *Adol*, *42*(166), 311–324.

Howard, D., Qiu, Y., & Boekeloo, B. (2003). Personal and social contextual correlates of adolescent dating violence. *Journal of Adolescent Health*, *33*(1), 9–17. doi:10.1016/S1054-139X(03)00061-2

Hu, L., & Bentler, P. M. (1999). Cutoff Criteria for Fit Indexes in Covariance Structure Analysis: Conventional Criteria Versus New Alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, *6*(1), 1–55.

Jezl, D. R., Molidor, C. E., & Wright, T. L. (1996). Physical, Sexual and Psychological Abuse in High School Dating Relationships: Prevalence Rates and Self-Esteem Issues. *Child and Adolescent Social Work Journal*, *13*(1), 69–87.

Judd, C. M., & Kenny, D. A. (1981). Process Analysis: Estimating Mediation in Treatment Evaluations. *Evaluation Review*, *5*(5), 602–619. doi:10.1177/0193841X8100500502

Kline, R. B. (2011). *Principles and Practice of Structural Equation Modeling* (Third Edit.). New York: The Guilford Press.

Kuijpers, K. F., van der Knaap, L. M., & Lodewijks, I. a J. (2011). Victims' influence on intimate partner violence revictimization: a systematic review of prospective evidence. *Trauma, Violence & Abuse*, *12*(4), 198–219. doi:10.1177/1524838011416378

Lac, A., & Crano, W. D. (2009). Monitoring Matters: Meta-Analytic Review Reveals the Reliable Linkage of Parental Monitoring With Adolescent Marijuana Use. *Perspectives on Psychological Science*, *4*(6), 578–587.

Lauritsen, J. L., Laub, J. H., & Sampson, R. J. (1992). Conventional and delinquent activities: implications for the prevention of violent victimization among adolescents. *Violence and Victims*, *7*(2), 91–108. Retrieved from http://www.ncbi.nlm.nih.gov/pubmed/1419927

Lavoie, F., Hébert, M., Tremblay, R., Vitaro, F., Vézina, L., & McDuff, P. (2002). History of family dysfunction and perpetration of dating violence by adolescent boys: a longitudinal study. *The Journal of Adolescent Health : Official Publication of the Society for Adolescent Medicine*, *30*(5), 375–83. Retrieved from http://www.ncbi.nlm.nih.gov/pubmed/11996786

Leadbeater, B. J., Banister, E. M., Ellis, W. E., & Yeung, R. (2008). Victimization and Relational Aggression in Adolescent Romantic Relationships: The Influence of Parental and Peer Behaviors, and Individual Adjustment. *Journal of Youth and Adolescence*, *37*(3), 359–372. doi:10.1007/s10964-007-9269-0

Li, X., Feigelman, S., & Stanton, B. (2000). Perceived Parental Monitoring and Health Risk Behaviors Among Urban Low-Income African- American Children and Adolescents. *Journal of Adolescent Health*, *27*(10), 43–48.

Li, X., Feigelman, S., & Stanton, B. (2000). Perceived parental monitoring and health risk behaviors among urban low-income African-American children and adolescents. *The*

Journal of Adolescent Health : Official Publication of the Society for Adolescent Medicine, *27*(1), 43–8. Retrieved from http://www.ncbi.nlm.nih.gov/pubmed/10867351

Malik, S., Sorenson, S. B., & Aneshensel, C. S. (1997). Community and Dating Violence Among Adolescents: Perpetration and Victimization. *Journal of Adolescent Health*, (97), 291–302.

Miethe, T. D., Stafford, M. C., & Long, J. S. (1987). Social Differentiation in Criminal Victimization: A Test of Routine Activities/Lifestyles Theories. *American Sociological Review*, *52*(2), 184–194.

Nowotny, K. M., & Graves, J. L. (2013). Substance Use and Intimate Partner Violence Victimization Among White, African American, and Latina Women. *Journal of Interpresonal Violence*. doi:10.1177/0886260513496903

O'Keefe, M. (2005). Teen Dating Violence : A Review of Risk Factors and Prevention Efforts. *Applied Reserach Forum: National Electronic Network on Violence Against Women*, (April).

Osgood, D. W., & Anderson, A. L. (2004). Unstructured Socializing and Rates of Delinquency. *Criminology*, *42*(3), 519–549.

Popp, A. M., & Peguero, A. a. (2011). Routine activities and victimization at school: the significance of gender. *Journal of Interpersonal Violence*, *26*(12), 2413–36. doi:10.1177/0886260510383021

Prevention, C. for D. C. and. (n.d.). Youth risk behavior surveillance—United States, 2009. *MMWR Surveillance Summaries*, *59*(SS-5), 1–148. Retrieved from http://www.cdc.gov/MMWR/preview/mmwrhtml/ss5905a1.htm

Schreck, C. J., Stewart, E. a., & Fisher, B. S. (2006). Self-control, Victimization, and their Influence on Risky Lifestyles: A Longitudinal Analysis Using Panel Data. *Journal of Quantitative Criminology*, *22*(4), 319–340. doi:10.1007/s10940-006-9014-y

Shorey, R. C., Stuart, G. L., & Cornelius, T. L. (2011). Dating Violence and Substance Use in College Students: A Review of the Literature. *Aggression and Violent Behavior*, *16*(6), 541–550. doi:10.1016/j.avb.2011.08.003

Simons, R. L., Lin, K., & Gordon, L. C. (1998). Socialization in the Family of Origin and Male Dating Violence : A Prospective Study. *Journal of Marriage and Family*, *60*(2), 467–478.

Sonis, J., & Langer, M. (2008). Risk and Protective Factors for Recurrent Intimate Partner Violence in a Cohort of Low-Income Inner-City Women. *Journal of Family Violence*, *23*(7), 529–538. doi:10.1007/s10896-008-9158-7

Stuart, G. L., Moore, T. M., Elkins, S. R., O'Farrell, T. J., Temple, J. R., Ramsey, S. E., & Shorey, R. C. (2013). The temporal association between substance use and intimate partner violence among women arrested for domestic violence. *Journal of Consulting and Clinical Psychology*, *81*(4), 681–90. doi:10.1037/a0032876

Temple, J. R., & Freeman, D. H. (2011). Dating violence and substance use among ethnically diverse adolescents. *Journal of Interpersonal Violence*, *26*(4), 701–18. doi:10.1177/0886260510365858

Tharp, A. T., & Noonan, R. K. (2012). Associations between three characteristics of parent-youth relationships, youth substance use, and dating attitudes. *Health Promotion Practice*, *13*(4), 515–23. doi:10.1177/1524839910386220

Vézina, J., & Hébert, M. (2007). Risk Factors For Victimization in Romantic Relationships of Young Women: A Review of Empirical Studies and Implications for Prevention. *Trauma, Violence & Abuse*, *8*(1), 33–66. doi:10.1177/1524838006297029

Vézina, J., Hébert, M., Poulin, F., Lavoie, F., Vitaro, F., & Tremblay, R. E. (2011). Risky lifestyle as a mediator of the relationship between deviant peer affiliation and dating violence victimization among adolescent girls. *Journal of Youth and Adolescence*, *40*(7), 814–24. doi:10.1007/s10964-010-9602-x

Wekerle, C., Leung, E., Wall, A.-M., MacMillan, H., Boyle, M., Trocme, N., & Waechter, R. (2009). The contribution of childhood emotional abuse to teen dating violence among child protective services-involved youth. *Child Abuse & Neglect*, *33*(1), 45–58. doi:10.1016/j.chiabu.2008.12.006

Wilcox, P. (2010). Theories of Victimization. In B. Fisher & S. Lab (Eds.), *Encyclopedia of victimiology and crime prevention* (pp. 978–986). Thousand Oaks: SAGE Publications. doi:10.4135/9781412979993.n334

Williams, T. S., Connolly, J., Pepler, D., Craig, W., & Laporte, L. (2008). Risk models of dating aggression across different adolescent relationships: a developmental psychopathology approach. *Journal of Consulting and Clinical Psychology*, *76*(4), 622–32. doi:10.1037/0022-006X.76.4.622