

The Effects of Low Self-Control and Childhood Maltreatment on Stalking Victimization among Men and Women

Kathleen A. Fox · Angela R. Gover ·
Catherine Kaukinen

Received: 6 February 2009 / Accepted: 26 March 2009 /
Published online: 25 June 2009
© Southern Criminal Justice Association 2009

Abstract This study examines sex differences among stalking victimization using two theoretical perspectives: self-control and the intergenerational transmission of violence. A sample of 1,490 undergraduate students at a large southeastern university were surveyed and asked to report their experiences with stalking, childhood maltreatment, and self-control. Given that men and women may experience stalking, self-control, and child maltreatment differently, logistic regression models were estimated separately to disentangle sex differences. Findings indicate that women are more likely than men to be victims of stalking. Childhood maltreatment was significantly related to stalking victimization for both men and women whereas low self-control was significantly related to stalking victimization for women only. Implications for policy and directions for future research are discussed.

Keywords Stalking victimization · Sex differences · Childhood maltreatment · Self-control · College students

K. A. Fox (✉)
College of Criminal Justice, Sam Houston State University, P.O. Box 2296,
Huntsville, TX 77341-2296, USA
e-mail: kaf012@shsu.edu

A. R. Gover
School of Public Affairs, University of Colorado at Denver, 1380 Lawrence Street, Suite 525, Denver,
CO 80217-3364, USA
e-mail: angela.gover@cudenver.edu

C. Kaukinen
School of Public Affairs, University of Colorado at Colorado Springs, 1420 Austin Bluffs Parkway,
P.O. Box 7150, Colorado Springs, CO 80933-7150, USA
e-mail: katie.kaukinen@uccs.edu

Researchers have paid increased attention to stalking victimization among men and women since the passage of the first anti-stalking law in California in 1990.¹ While stalking has received much attention by researchers, theoretical perspectives have rarely been applied to stalking victimization. This study examines two theoretical perspectives in the context of stalking victimization: self-control theory and the intergenerational transmission of violence. More specifically, we investigate the effects of low self-control and childhood maltreatment on stalking victimization among men and women.

Given the negative physical and psychological effects of stalking victimization among men and women (for a review, see Pathé and Mullen 1997), researchers recognize the importance of ascertaining sex differences in stalking prevalence rates. Nationally, substantially more women (8–12%) than men (2–4%) report experiences with stalking (National Violence Against Women Survey (NVAWS), Tjaden and Thoennes 1998).² Some research on college students suggests that the majority of stalking victims are women (Bjerregaard 2000; McCreedy and Dennis 1996; Nobles et al. 2009) while other research has not found differences in stalking victimization rates for men and women (Cupach and Spitzberg 2000; Haugaard and Seri 2001). Studies involving samples of college students report stalking victimization at much higher rates than the general public. Specifically, average prevalence rates of stalking victimization for women range from 13% (stalking experienced within the prior twelve months) (Fisher et al. 2002) to 35% (stalking experienced during one's lifetime) (Fremouw et al. 1997).³ Lifetime victimization rates for men range from 11% (Bjerregaard 2000) to 19% (Haugaard and Seri 2001).⁴

In addition to sex differences among college students, some researchers focusing on stalking victimization among college students include variables measuring race and residence location. While some research found that race was not significantly related to stalking victimization among college students (Mustaine and Tewksbury 1999), other studies indicate that race is significantly associated with stalking victimization. Specifically, prior research on college students suggests Whites are more likely to be victimized (Bjerregaard 2000) whereas other research indicates that non-Whites are significantly more likely to be stalking victims (Fisher et al. 2002). Using a national sample, Tjaden and Thoennes (1998) also find that non-Whites are significantly more likely to be stalking victims. In light of these conflicting findings, it is clear that more attention needs to focus on the relationship between race and

¹ By 1995 all 50 states and the federal government enacted anti-stalking laws (Leiter 2005).

² Tjaden and Thoennes (1998) found higher rates of stalking (12% for women and 4% for men) when using a definition that required victims to be somewhat fearful rather than very fearful (8% for women and 2% for men).

³ These researchers use different methods to measure stalking victimization, which may account for the variation in prevalence rates. Fisher et al. (2002) and Fremouw et al. (1997) both use direct questions to assess stalking victimization; however, Fremouw et al. (1997) use the term “stalking” whereas Fisher et al. (2002) avoid using this term and, instead, ask respondents if they have experienced a variety of behaviors that seemed obsessive or made them fear for their safety (including following, watching, phone calls, e-mails, or other communication).

⁴ It is important to note that most of these studies examine stalking (Bjerregaard 2000; Fisher et al. 2002; Fremouw et al. 1997; Haugaard and Seri 2001; McCreedy and Dennis 1996; Nobles et al. 2009; Tjaden and Thoennes 1998) while others measure similar phenomenon, yet label the behaviors differently. For example, Cupach and Spitzberg (2000) examine “relational intrusion.”

stalking victimization. Several studies that have investigated the relationship between on-campus and off-campus residence status and stalking victimization found that the majority of stalking victims live off-campus (Fisher et al. 2002; McCreedy and Dennis 1996; Mustaine and Tewksbury 1999). Mustaine and Tewksbury (1999) describe on-campus housing as a potentially safer environment than off-campus housing due to security guards, resident assistants, and residents who are knowledgeable about who does and does not belong in student dormitories. Furthermore, as Fisher et al. (2002) point out, virtually all on-campus housing requires roommate living, thereby providing on-campus residents with a ‘safety in numbers’ type of guardianship.

It is important to examine theoretically-based factors associated with victimization separately for men and women, which may help explain why men and women are at risk for stalking victimization. However, with few exceptions, prior research on stalking victimization is largely void of theory testing. The current study is grounded in two theoretical perspectives and advances the knowledge on stalking victimization in terms of self-control theory and the intergenerational transmission of violence perspective. The following provides an argument for testing self-control theory’s effect on stalking victimization. Next, we argue for the importance of examining the impact of the intergenerational transmission of violence on stalking victimization.

Self-Control Theory and Stalking Victimization

Findings from two important studies focusing on routine activities theory have guided one of the theoretical examinations of the current study. Using samples of female college students, Fisher et al. (2002) and Mustaine and Tewksbury (1999) found strong empirical evidence supporting a relationship between stalking victimization and routine activities variables. For example, Fisher et al. (2002) found women who lived alone and who placed themselves in close proximity to establishments selling alcohol were significantly more likely to be victims of stalking. Similarly, Mustaine and Tewksbury (1999) discovered that women who resided off-campus (presumably with fewer guardians) and who used substances were at greater risk of being stalked.

Considering these findings using a different, yet related, perspective, it is possible that alcohol consumption and placing oneself in establishments that sell alcohol may be indicative of low self-control. While Gottfredson and Hirschi (1990) developed their general theory to specifically explain crime and analogous behavior, this theory may also be useful for explaining stalking victimization. The concept of self-control is at the core of the general theory of crime and the theorists argue that, when presented with opportunity, individuals with low self-control are more likely to commit crime than individuals with high self-control. Traits indicative of low self-control include risk seeking, impulsivity, temperamental, short-sighted, self-centered, and a preference for physical activities (Gottfredson and Hirschi 1990). According to Gottfredson and Hirschi (1990), self-control is a relatively stable trait established during childhood (see also Turner and Piquero 2002). Furthermore, Gottfredson and Hirschi (1990) acknowledge sex differences among crime rates given that men are

continually overrepresented within the criminal justice system. The theorists suggest that sex differences are the “result of crime differences *and* differences in self-control that are not produced by direct external control,” such as direct parental supervision (Gottfredson and Hirschi 1990 p. 149). However, Gottfredson and Hirschi (1990) admit that their theory is not designed to fully explain the elements driving gender differences in crime, criminality, or self-control. Much research examining sex differences of self-control suggests that, consistent with the theory, men have lower self-control than women (LaGrange and Silverman 1999; Nakhaie et al. 2000). While self-control theory has enjoyed much empirical support (Pratt and Cullen 2000), it has also been critiqued (Akers 1991) and, recently, revised by Hirschi (2004).⁵

Although self-control theory does not claim to explain victimization, research has found support for the link between low self-control and an increase in crime victimization risk (Holtfreter et al. 2008; Schreck 1999; Schreck et al. 2002; Schreck et al. 2006; Stewart et al. 2004). Schreck (1999) surveyed approximately 1,000 college students and found that low self-control predicted property crime victimization (i.e., types of theft) and personal crime victimization (i.e., robbery, assault, and threats). Stewart et al. (2004) interviewed over 400 Black women who actively used drugs and found that low self-control was significantly associated with personal crime victimization (i.e., physical attacks). Other work focusing on self-control and dating violence perpetration by Sellers (1999) suggests a direct effect between dating violence perpetration and low self-control. Even when controlling for opportunity, perceived rewards, age, and gender, Sellers (1999) discovered that dating violence perpetrators are significantly more likely to exhibit low self-control.

These important studies, along with the work mentioned earlier by Fisher et al. (2002) and Mustaine and Tewksbury (1999), provide the groundwork for the current study. Given that both Schreck (1999) and Stewart et al. (2004) found strong support for the relationship between self-control and crime victimization (specifically personal crime victimization), the current study aims to examine a related type of crime that has not yet been examined with regard to self-control: stalking victimization. The six characteristics of low self-control identified by Gottfredson and Hirschi (1990) may increase the risk of stalking victimization. Individuals with low self-control who seek risks may be more likely to place themselves at risk of encountering stalkers (e.g., perhaps by spending time in establishments with alcohol, as Fisher et al. 2002 and Mustaine and Tewksbury 1999 argue). People who are impulsive, short-sighted, and who prefer physical rather than mental tasks may be unlikely to calculate the risk involved with placing themselves in potentially unsafe situations that may lead to stalking. For example, it may be important to calculate the risk of sharing personal information (i.e., residence and/or employment location, etc.) with others. Stewart et al. (2004) argue that individuals with low self-control are likely to be temperamental and self-centered or indifferent to others, which likely

⁵ Hirschi's (2004 p. 543) redefined self-control theory integrates social control and self-control theories and defines self-control as “the tendency to consider the full range of potential costs of a particular act.” Hirschi also constructed a revised scale to measure redefined self-control, which includes items such as “Do you like or dislike school?” “Do you care what teachers think of you?” and “Does your mother know where you are when you are away from home?” Recent research supports Hirschi's redefined construct (Piquero and Bouffard 2007).

limits the number of close friendships formed and this, in turn, reduces the extent to which social support networks or guardians serve as protection from criminal victimization. Given the well-established connection between offending and victimization (Lauritsen et al. 1991; Lauritsen et al. 1992; Lauritsen and Laub 2007), it follows that characteristics comprising low self-control may be indicative of criminal victimization in addition to criminal perpetration behaviors. Importantly, Schreck (1999) warns against confusing the objective empirical study of self-control and victimization with victim-blaming tactics. As he perceptively points out, low self-control may be one of many risk factors associated with victimization. The current study is the first to empirically examine the relationship between self-control and stalking victimization.

Intergenerational Transmission of Violence and Stalking Victimization

The theoretical basis of Gottfredson and Hirschi's (1990) self-control theory also guides the second theoretical perspective examined by the current study: the intergenerational transmission of violence. Importantly, self-control - predictive of criminal behavior - is formed primarily by the quality of the child's parenting. Poor parenting (neglectful or abusive relationships between parent and child) affects the child's level of self-control (Gottfredson and Hirschi 1990). We argue, then, that poor parenting in the form of childhood maltreatment is likely to result in future victimization for the child. More specifically, childhood maltreatment experienced early in life may result in lower self-control, which may increase the risk of victimization. Essentially, this argument is characterized by the intergenerational transmission of violence, which states that early childhood victimization increases one's exposure to crime later in life (Widom 1989). In other words, maltreated children may develop low self-control as a result of their negative early childhood experiences and may, therefore, be at risk for victimization later in life.

Prior research has established that victimization later in life (after experiencing childhood maltreatment) often manifests itself in the form of intimate partner violence (Gover et al. 2008; Marshall and Rose 1988). Important research by Avakame (1998) suggests that a link exists between low self-control and physical and psychological intimate partner violence for both men and women. Furthermore, Avakame (1998) suggests that physical punishment during childhood by mothers predicts low self-control among females. Given these findings and the close relationship between intimate partner violence and stalking (Logan et al. 2000), there is substantial evidence to suggest that stalking victimization may also be related to childhood maltreatment.

Present Study

The current research examines sex differences in stalking victimization and is guided by two theoretical perspectives: self-control theory and the intergenerational transmission of violence. Based on theoretical underpinnings and related research,

we hypothesize that: (1) men and women with lower self-control will be more likely to be stalking victims than individuals with higher self-control and (2) men and women victimized by childhood maltreatment will be more likely to be stalking victims than individuals who do not report childhood maltreatment. The current study makes several important contributions to the stalking literature. This study employs modified stalking measures from the NVAWS to examine the stalking reports among a large sample of young adults attending college. The current study is the first to examine Gottfredson and Hirschi's (1990) low self-control theory as an explanation for stalking victimization. Furthermore, the current study is among the first to examine the relationship between childhood maltreatment and stalking victimization.

Method

Procedure

For purposes of this study and subsequent research projects, an extensive survey was created that consisted of questions regarding topics such as stalking victimization, family of origin violence, risk-taking behaviors, and various demographic questions.⁶ The survey was developed specifically for college students and included previously validated scales and indexes.⁷ Surveys were administered to college students at a large southeastern university between August and December of 2005. Permission was obtained from faculty teaching liberal arts and sciences courses to administer surveys during class meetings. Students were told that the survey asked questions about their experiences with crime, victimization, and family background. All survey responses were anonymous and students did not receive any rewards for their participation in the research.

Participants

The sample consisted of 1,490 college students and the overall response rate for the survey was 97%. The response rate was calculated by comparing the total number of completed surveys to the number of students present during class on the day in which the survey was administered. As data collection proceeded across campus over time we had an increasing rate in which students had already completed the survey and declined in subsequent classes. We employed listwise deletion to trim out cases with missing values on the outcome and explanatory variables.⁸ Valid sample sizes ranged from 1,490 for the descriptive analyses and 465 to 975 for the gender specific models. There were relatively few missing values for the study variables. We conclude that these data are largely Missing At Random (MAR), in that, given

⁶ The survey is available upon request from the authors.

⁷ College student samples are often used by criminologists for empirical theoretical tests and for the examination of crime and victimization risk factors (Payne and Chappell 2008).

⁸ Listwise deletion resulted in 157 missing cases

the observed data, the mechanism by which data are missing does not depend on the unobserved data. We have no reason to conclude that students who did not attend class on the day the survey was administered are systematically different from those who did attend, or that those who missed some of the individual self-control items are different from students who completed the entire inventory.

Among the 1,490 participants, 35% were male, 64% were non-Hispanic White, and 62% of the sample reside off-campus. Respondents tended to be young, 35% were age 18, 25% were age 19, 19% were age 20, and the remaining 21% were age 21 or older. Class standing closely mirrors age: 36% were freshmen, 22% were sophomores, 24% were juniors, and 18% were seniors or graduate students.

Dependent Variable

Stalking victimization was the outcome variable in this analysis. Although the literature on stalking has not come to a consensus on the precise elements that constitute stalking, the vast majority of research embraces several standard components of the phenomena that are consistent with the legal definition. Most scholars define stalking behavior as repeated, intrusive, unwanted, and frightening or harassing in nature (Tjaden and Thoennes 1998). Many definitions of stalking require victims to experience fear, although some scholars allege this requirement unnecessarily undercuts the prevalence rate of stalking and undermines victimization (Dietz and Martin 2007). All legal definitions and the majority of definitions of stalking used in research also require the presence of intrusive and harassing behaviors on two or more occasions (Sheridan et al. 2002). Remaining consistent with the majority of prior research, the current study defines stalking as behavior that was intrusive, unwanted, repeated, and frightening or harassing in nature (Tjaden and Thoennes 1998).

The stalking survey instructions were adapted and modified from those used in the NVAWS; however, the research setting prevented the use of skip patterns as used by the NVAWS. To measure stalking victimization, the survey asked respondents to report their experiences with “frightening or harassing things someone may have done to you. Not including bill collectors, telephone solicitors, or other sales people, please indicate if anyone, male or female, has ever done any of these things to you:” (1) followed, watched, or spied on you, (2) stood outside your home, school, or workplace, (3) showed up at places uninvited, (4) vandalized your property or destroyed something you loved, (5) sent you unsolicited letters, written correspondence, or unwanted e-mails, (6) made unwanted phone calls to you, (7) left unwanted messages for you, (8) left unwanted items for you to find, or (9) tried to communicate with you in other ways against your will. Since stalking consists of *repeated* unwanted behaviors, respondents were asked if each behavior occurred on more than one occasion. Consistent with the legal definition of stalking and measures used in the NVAWS, the stalking victimization variable represents instances where two or more of any single stalking behavior occurred or two or more different stalking behaviors occurred. In other words, respondents were considered stalking victims if they experienced one type of stalking behavior two or more times (such as repeatedly being followed) *or* if they experienced two or more stalking behaviors (such as being followed and receiving unwanted items). Stalking

victimization represented a dichotomous measure indicating the presence (= 1) or absence (= 0) of stalking.⁹

Criterion Variables

Drawing on the previous literature, two criterion variables were included in this analysis: self-control and childhood maltreatment. The overall sample description for each variable is provided in the sections below.

Childhood Maltreatment Childhood Maltreatment measured the extent to which an individual reported experiencing childhood maltreatment. The variable denoting childhood maltreatment used a scale comprised of seven indicators derived from the Revised Conflict Tactics Scale II (Revised CTS2) (Straus et al. 1995). Specifically, survey questions inquired as to whether a parent/guardian had ever perpetrated abuse during the respondents' childhood (i.e., choking or attempting to drown, kicking or biting, pulling hair, beating up, hitting and leaving bruises, hurting in a sexual way, and throwing something that could hurt). Responses to these questions were dichotomous and indicated one or more reports of early childhood maltreatment (= 1) or no experience with early childhood maltreatment (= 0) (the Crohnbach's alpha reliability score was .73). Approximately 29% of respondents indicated that they experienced childhood maltreatment.

Self-Control The self-control measure was comprised of twenty-three questions from Grasmick et al.'s (1993) low self-control scale.¹⁰ Likert response options ranged from strongly agree to strongly disagree and were summed and divided by 23 (the total number of questions included in the scale). Overall scale scores ranged from 1 to 4, with lower scale scores indicating lower levels of self-control. The mean self-control scale score was 2.92 ($SD=0.38$) and the Crohnbach's alpha reliability score was .87.

Control Variables

Three dichotomous control variables were included in the analysis: sex, race, and living on- or off-campus. Race was measured such that 1 = White, non-Hispanic and 0 = non-White. Off-campus was measured such that 1 = live off-campus and 0 = live on-campus.

⁹ Variation among measures of stalking victimization is unknown due to the way in which the survey questioned respondents. For example, categorizing respondents into groups of high versus low victims was not possible because the survey did not measure variation in the number of times a respondent was victimized. In addition, the survey does not permit an analysis of the variation in behaviors perpetrated by a single offender. Respondents who indicated that stalking behaviors occurred more than once were not asked how many times behaviors occurred in total.

¹⁰ The original self-control scale created by Grasmick et al. (1993) originally included twenty-four indicators. The revised scale used in the present study includes twenty-three of the original indicators and follows Grasmick et al.'s suggestion to omit the question that states, 'I seem to have more energy and a greater need for activity than most other people my age.'

Analytic Plan

The first step in the analysis examines the distribution of stalking victimization and the focal independent variables for our sample. Next, we explore the pair-wise association between the independent variables and the dependent variable, stalking victimization, using the Chi-Square test. For the multivariate analysis, given the outcome variable is binary and highly skewed (Bohrnstedt and Knoke 1993), our models are estimated with a binary logistic regression. In the models the coefficients reveal the association between a given predictor and the log odds of a respondent being a victim of stalking. Since one purpose of the current study is to examine whether factors related to stalking victimization varied between men and women, sex-specific models are estimated separately. Significant relationships are identified using an alpha level of .05 or lower.

Characteristics of Stalking Victims

Table 1 presents descriptive characteristics for the full sample and the stalking victim sub-sample. Results indicated that 25% of respondents ($N=347$) reported being victims of stalking during their lifetime.¹¹ The majority of stalking victims (70%) were women and White, non-Hispanic (63%). The question asking respondents to identify the nature of their relationship with the stalker at the time the unwanted behavior occurred was not mutually exclusive and permitted individuals who were stalked by more than one person to identify the relationship status of multiple perpetrators. Stalking victims (some of whom had experienced stalking by more than one perpetrator) reported being stalked by former intimate dating partners (39%), acquaintances (35%), strangers (24%), friends (16%), and a current intimate dating partner (4%). Ten percent of respondents were not sure of the identity of their stalker and therefore could not accurately determine their relationship status with these offenders.

Since one focus of this research is to determine whether there are sex differences in factors associated with stalking victimization, it is important to examine whether men and women experienced unique types of stalking. Table 2 presents descriptive statistics for the full sample as well as the sample of women and men separately. Women and men reported many similarities in terms of the variables of interest. More specifically, the majority of women and men reported living off-campus (60% and 65%, respectively) and being White (63% and 67%, respectively). Furthermore, women and men reported similar rates of childhood maltreatment (28% and 31%, respectively), self-control (means of 2.97 and 2.82, respectively), and stalking victimization (26% and 22%, respectively).

Overall, men and women reported similar types of stalking in terms of the nine specific indicators that comprised stalking in this research. Men and women did not

¹¹ These respondents indicated victimization of stalking according to the NVAWS definition of stalking wherein individuals experienced, on two or more occasions, either one or more of the nine frightening or harassing stalking behaviors listed.

Table 1 Sample characteristics for the full sample and stalking victimization sample

	Full Sample (<i>N</i> =1,490)	Stalking Victim Sample (<i>N</i> =347)
Sex		
Male	35%	30%
Female	65%	70%
Race/Ethnicity		
White	64%	63%
Black	13%	15%
Other	9%	8%
Hispanic	14%	14%
Age ^a (Range 1–4)	Mean=2.27 (<i>SD</i> =1.16)	Mean=2.20 (<i>SD</i> =1.14)

^a Age was coded as: 1=18 years old; 2=19 years old; 3=20 years old; and 4=21 years old or older.

differ in the rates in which they experienced seven of the nine indicators of stalking. Nevertheless, men were significantly more likely than women to report having unwanted items left for them (28% versus 13%; $\chi^2=10.36$, $p<.01$) and to report having their property vandalized or something special destroyed (37% versus 24%; $\chi^2=10.36$, $p<.01$). Even though the rates in which men and women report experiencing these two types of behaviors differed, these behaviors were not the most commonly experienced forms of stalking experienced by victims. The most common stalking behaviors both men and women report experiencing was receiving unwanted phone calls (41.3% for women and 34.5% for men) and receiving unwanted messages (32% for women and 27.7% for men).

Multivariate Analysis

Logistic regression was employed for the multivariate models since the outcome measures were binary variables. Binary logit models are interpreted the same way as ordinary least-squares models; what is modeled in additive form is the natural log of the odds of the dependent variable relative to the omitted category. Models were

Table 2 Descriptive statistics for the full sample, female sub-sample, and male sub-sample

	Full Sample (<i>N</i> =1,490)	Female Sub-Sample (<i>N</i> =975)	Male Sub-Sample (<i>N</i> =515)
Living Off-Campus	62%	60%	65%
White	64%	63%	67%
Childhood Maltreatment	29%	28%	31%
Self-Control (Range 1–4)	Mean=2.92 (<i>SD</i> =.38)	Mean=2.97 (<i>SD</i> =.38)	Mean=2.82 (<i>SD</i> =.37)
Stalking Victimization	25%	26%	22%

estimated for the association between specific factors and stalking victimization among men and women separately.

Table 3 (Model 1) presents the results of the stalking victimization regression model for women. Results indicate two variables were significantly related to stalking victimization for women: childhood maltreatment ($b=.34$, $p<.05$) and low self-control ($b=-.52$, $p<.01$). Table 3 (Model 2) presents the findings of the stalking victimization model for men. Results reveal that one variable was significantly related to stalking victimization for men: experiencing childhood maltreatment ($b=.97$, $p<.001$).

Discussion

The purpose of this study was to examine sex differences in stalking victimization using two theoretical perspectives: self-control and the intergenerational transmission of violence. Of the college students sampled ($N=1,490$), 25% report being victims of stalking. Similar to prior research on the prevalence of stalking and intimate partner violence among college samples, the current findings report much higher rates than those found within the general population (Tjaden and Thoennes 1998). These findings, however, are consistent with previous research of stalking among young adults attending college that report high levels of victimization. Sex differences were found for stalking victimization: women are significantly more likely than men to be victims of stalking.¹² This finding supports previous research by Bjerregaard (2000), McCreedy and Dennis (1996), and Nobles et al. (2009); however, some prior research did not find differences in the rates in which men and women experience stalking (Cupach and Spitzberg 2000; Haugaard and Seri 2001).

Stalking victimization was significantly related to both theoretical variables of interest. The results indicate that childhood maltreatment significantly increases the probability of stalking victimization for men and women. This finding is similar to research by Slashinski et al. (2003) who found that childhood physical aggression by a parent or guardian was strongly associated with subsequent dating violence for both men and women, although this study did not focus on college students. Although beyond the scope of this research, an explanation for this finding may be that both men and women who experience violence during childhood are more likely to learn that violence is a normal response to conflict. It is possible that victimization in early life may teach children that inappropriate behavior is tolerable, and individuals who experience childhood maltreatment may naturally associate with others who exemplify similar beliefs and behaviors (Akers and Sellers 2009). Associating closely with individuals who demonstrate adverse types of behavior may increase one's likelihood of being victimized by these peers.

Furthermore, the multivariate models provide qualified support for the relationship between low self-control and stalking victimization. Low self-control was

¹² The coefficients from the full model are not presented here, but are available from the authors upon request.

Table 3 Adjusted odds ratios (AORs) and logistic regression coefficients for modeling the correlates of stalking victimization among women and men

	Model 1 Women (N=918)				Model 2 Men (N=465)			
	95% Confidence Interval for AOR				95% Confidence Interval for AOR			
	<i>b</i>	AOR	Lower	Upper	<i>b</i>	AOR	Lower	Upper
Living Off-Campus	0.21 (0.16)	1.23	.91	1.67	0.12 (0.25)	1.13	.69	1.83
White	0.23 (0.16)	1.26	.91	1.73	−0.31 (0.24)	0.74	.46	1.18
Childhood Maltreatment	0.34* (0.17)	1.40	1.00	1.95	0.97*** (0.24)	2.65	1.66	4.22
Self-Control	−0.52** (0.20)	0.60	.40	.88	−0.42 (0.32)	0.66	.35	1.22

* = $p < .05$ ** = $p < .01$ *** = $p < .001$ Standard Errors in Parentheses

significantly associated with stalking victimization for women but not for men. The significant finding for women supports prior research that has linked low self-control with criminal victimization (Schreck 1999; Stewart et al. 2004). The partial support from the current study not only support findings from prior research, but also adds support for a new application of Gottfredson and Hirschi's (1990) general theory of crime. Based on a review of the literature, the present study is among the first to examine Gottfredson and Hirschi's concept of low self-control as a factor related to stalking victimization. Based on the current findings, it is plausible that women with lower self-control are more likely to place themselves in riskier situations, which in turn could put them in closer proximity to potential stalkers and may increase their likelihood of being in intimate relationships with controlling individuals. Applying the concept of self-control to stalking victimization responds to Shreck's (1999) assertion that Gottfredson and Hirschi's (1990) theory should be applied to many different forms of victimization. As explained earlier, theoretical applications to stalking victimization are scarce and have only focused on the theoretical strength of routine activities theory (Fisher et al. 2002; Mustaine and Tewksbury 1999). Given the relationship between experiencing violence and stalking victimization and the partial support for low self-control and stalking victimization, future empirical studies should examine measures of social learning, routine activities, low self-control, and the cycle of violence.

It is very interesting that low self-control was significantly related to stalking victimization for women but not for men. There are two possible explanations for this finding. First, the influence of childhood maltreatment on stalking victimization was much stronger for males than females. Males who experienced childhood maltreatment were significantly more likely than female victims of childhood abuse to report stalking victimization. It is therefore possible that since the impact of childhood maltreatment is more salient for males, child maltreatment may be absorbing the effects of low self-control on stalking victimization (for males). Second, the Grasmick et al. (1993) scale has received controversial attention in terms of its reliability and validity (Arneklev et al. 1999; Higgins and Tewksbury 2006; Piquero and Bouffard 2007; Piquero et al. 2000). For example, using a college

student sample, Higgins (2007) examines the unidimensionality of the Grasmick et al. (1993) scale with a Rasch model (Rasch 1960). Higgins (2007) reported that four items in the scale did in fact operate differently for men and women. Therefore, it is possible that in the current study, low self-control had a significant impact on stalking victimization for females but not for males because not all of the items in the scale can be appropriately applied to both sexes.¹³

Conclusion

While the current results have made contributions to the literature in terms of identifying factors that are related to stalking victimization, there are methodological limitations that influence the generalizability of these findings. First, the sample is comprised of college students surveyed from liberal arts and sciences courses who are primarily women (65%) and White (64%). Findings may differ if students from other academic disciplines and individuals from the general population were sampled. Yet, it is important to note that the demographic makeup of the sample is representative of the overall undergraduate student population at the study's large southeastern university and is similar to the sex demographics of colleges across the United States (Peter et al. 2005). Future research, however, should examine the extent to which the findings obtained in this study apply to other ethnic groups. Further, since the sample was drawn exclusively from college students, care should be exercised when generalizing these findings to young adults who are not attending college. Similar to other stalking research, the current study is cross-sectional and respondents reported experiences retrospectively.

An additional limitation of the current study involves the measurement of the outcome variable, stalking victimization. Given the complex nature of stalking, which may consist of an infinite number of behaviors, the current study was unable to include a comprehensive measurement of stalking victimization. With the exception of asking respondents about unwanted e-mails, measures of cyber stalking are notably absent. Cyber stalking behaviors may be particularly common among college students who tend to be technologically advanced and spend time on social networking websites (e.g., Facebook, MySpace, etc.). Therefore, the current study's measurement of stalking may be considered a more conservative measure and future research should attempt to include cyber stalking indicators. Furthermore, the stalking measure was dichotomous, which prevented the identification of factors associated with the variation in stalking experienced or factors that may be related to very specific types of stalking (such as unwanted phone calls and following behaviors). Future research should continue to build on Fisher et al.'s (2002) and Nobles et al.'s (2009) examinations of the intensity and duration of stalking to further investigate how the duration of stalking experiences vary and the degree to which individuals experience specific stalking behaviors.

¹³ While the Grasmick et al. (1993) self-control scale has been critiqued, it has also received much empirical support and scholars have continued to use the items similar to the original scale (Schreck 1999; Schreck et al. 2006; Sellers 1999). Using Grasmick et al.'s (1993) scale allows readers to compare and contrast the results presented here with the work from prior research.

A final limitation of this study is a failure to examine the impact of a wider variety of control and predictive variables. Earlier models (not shown but available from the authors by request) included a number of additional control variables. The exclusion of these control variables from the trimmed model, however, did not change the statistical or substantive meaning of the focal variables under consideration. Additionally, as previously discussed, routine activities theory has been used to explain stalking victimization, yet our models do not include measures of these theoretical approaches. Therefore, possible omitted variable bias might exist due to this omission.

Policy changes, especially those related to student safety issues on college campuses, are needed to prevent and respond to stalking among young men and women. College campuses are in a unique position to reduce the incidence of stalking, to provide support to stalking victims, and to promote education about stalking to students in general. However, as Fisher et al. (2002) observes, little evidence indicates that college administrators recognize the seriousness of stalking and the importance of a systematic response. Most large universities provide students with mental health services and specific services for crime victims. Therefore, one policy recommendation from the current study is for counselors, victim advocates, and law enforcement officers on college campuses to participate in supplemental training to prevent, identify, and respond appropriately to incidences of stalking. Romeo (2001) discusses the need for a handbook on anti-stalking policies for college students. She recommends providing students with the contact information for agencies that can help stalking victims (i.e., campus police, local law enforcement agencies, shelters, mental health agencies, etc.). While some universities and colleges have begun to take steps to address stalking on-campus, many campuses have not yet implemented support services for victims of stalking. Overall, as Sellers and Bromley (1996) suggest, the nature of the data from the current study should be considered supplemental information that provides insight to the overall problem of dating violence among college students, and should be beneficial for a wide variety of campus officials and employees (e.g., university police officers, student judicial officers, victim advocates, and mental health counselors). Again, the recommendations based on the current findings should be interpreted with caution due to concerns with generalizability. Future research should determine whether the factors found to be associated with stalking victimization in the current sample are related to and predictive of similar behaviors on other campuses.

In conclusion, stalking is a crime that demands serious attention from institutions of higher education, law enforcement agencies, public policy makers, and society. Given the damaging social implications of ignoring the crime of stalking, university and college administrators, law enforcement officers, public policy makers, and researchers should continue to devote time and resources to the identification and prevention of stalking.

References

- Akers, R. L. (1991). Self-control as a general theory of crime. *Journal of Quantitative Criminology*, 7(2), 201–211.
- Akers, R. L., & Sellers, C. S. (2009). *Criminological theories: Introduction, evaluation, and application* (5th ed.). New York: Oxford University Press.

- Arneklev, B. J., Grasmick, H. G., & Bursik, R. J. (1999). Evaluating the dimensionality and invariance of "low self-control". *Journal of Quantitative Criminology*, 15, 307–331.
- Avakame, E. F. (1998). Intergenerational transmission of violence, self-control, and conjugal violence: A comparative analysis of physical violence and psychological aggression. *Violence and Victims*, 13(3), 301–316.
- Bohrnstedt, G., & Knoke, D. (1993). *Statistics for social data analysis*. Itasca, Illinois: F.E. Peacock Publishers.
- Bjerregaard, B. (2000). An empirical study of stalking victimization. *Violence and Victims*, 15, 389–406.
- Cupach, W. R., & Spitzberg, B. H. (2000). Obsessive relational intrusion: Incidence, perceived severity, and coping. *Violence and Victims*, 15, 357–372.
- Dietz, N. A., & Martin, P. Y. (2007). Women who are stalked: questioning the fear standard. *Violence Against Women*, 13, 750–776.
- Fisher, B. S., Cullen, F. T., & Turner, M. G. (2002). Being pursued: stalking victimization in a national study of college women. *Criminology & Public Policy*, 1, 257–308.
- Fremouw, B., Westrup, D., & Pennypacker, J. (1997). Stalking on campus: the prevalence and strategies for coping with stalking. *Journal of Forensic Sciences*, 42, 666–669.
- Gottfredson, M. R., & Hirschi, T. (1990). *A general theory of crime*. Stanford, CA: Stanford University Press.
- Gover, A. R., Kaukinen, C., & Fox, K. A. (2009). The relationship between violence in the family of origin and dating violence among college students. *Journal of Interpersonal Violence*, 23, 1667–1693.
- Grasmick, H. G., Tittle, C. R., Bursick, R. J., & Arneklev, B. J. (1993). Testing the core empirical implications of Gottfredson and Hirschi's general theory of crime. *Journal of Research in Crime and Delinquency*, 30, 5–29.
- Haugaard, J. L., & Seri, L. G. (2001). Stalking and other forms of intrusive contact in adolescent and young-adult relationships. *University of Missouri-Kansas City Law Review*, 69, 227–238.
- Higgins, G. E. (2007). Examining the original Grasmick scale: a rasch model approach. *Criminal Justice and Behavior*, 34, 157–178.
- Higgins, G. E., & Tewksbury, R. (2006). Sex and self-control theory: the measures and causal model may be different. *Youth & Society*, 37, 479–503.
- Hirschi, T. (2004). Self-control and crime. In R. F. Baumeister & K. D. Vohs (Eds.), *Handbook of self-regulation: Research, theory, and applications*. New York: Guilford Press.
- Holtfreter, K., Reisig, M. D., & Pratt, T. C. (2008). Routine activities, low self-control, and fraud victimization. *Criminology*, 46, 189–220.
- LaGrange, T. C., & Silverman, R. A. (1999). Low self-control and opportunity: testing the general theory of crime as an explanation for gender differences in delinquency. *Criminology*, 37, 41–72.
- Lauritsen, J. L., & Laub, J. H. (2007). Understanding the link between victimization and offending: new reflections on an old idea. *Crime Prevention Studies*, 22, 55–75.
- Lauritsen, J. L., Sampson, R. J., & Laub, J. H. (1991). The link between offending and victimization among adolescents. *Criminology*, 29, 265–292.
- 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, 91–108.
- Leiter, R. A. (2005). *National survey of state laws*, 5th ed. Thomson Gale Publishers.
- Logan, T. K., Leukefeld, C., & Walker, B. (2000). Stalking as a variant of intimate violence: implications from a young adult sample. *Violence and Victims*, 15, 91–111.
- Marshall, L. L., & Rose, P. (1988). Family of origin violence and courtship abuse. *Journal of Counseling and Development*, 66, 414–418.
- McCreedy, K., & Dennis, B. (1996). Sex related offenses and fear of crime on campus. *Journal of Contemporary Criminal Justice*, 12, 69–80.
- Mustaine, E. E., & Tewksbury, R. (1999). A routine activity theory explanation for women's stalking victimizations. *Violence Against Women*, 5, 43–62.
- Nakhaie, M. R., Silverman, R. A., & LaGrange, T. C. (2000). Self-control and social control: An examination of gender, ethnicity, class and delinquency. *Canadian Journal of Sociology*, 25, 35–59.
- Nobles, M. R., Fox, K. A., Piquero, N. L., & Piquero, A. R. (2009, *forthcoming*). Career dimensions of stalking victimization and perpetration. *Justice Quarterly*, 26.
- Pathé, M., & Mullen, P. E. (1997). The impact of stalkers on their victims. *British Journal of Psychiatry*, 170, 12–17.
- Payne, B. K., & Chappell, A. (2008). Using college student samples in criminological research. *Journal of Criminal justice Education*, 19, 175–192.

- Piquero, A. R., & Bouffard, J. A. (2007). Something old, something new: a preliminary investigation of Hirschi's refined self-control. *Justice Quarterly*, 24, 1–27.
- Piquero, A. R., MacIntosh, R., & Hickman, M. (2000). Does self-control affect survey response? Applying exploratory, confirmatory, and item response theory analysis to Grasmick et al.'s self-control scale. *Criminology*, 38, 481–510.
- Peter, K., Horn, L., & Carroll, C. D. (2005). Gender differences in participation and completion of undergraduate education and how they have changed over time: Postsecondary education descriptive analysis reports. U.S. Department of Education Institute of Education Sciences, National Center for Education Statistics.
- Pratt, T. C., & Cullen, F. T. (2000). Assessing macro-level predictors and theories of crime: a meta-analysis. *Crime and Justice*, 32, 373–450.
- Rasch, G. (1960). *Probabilistic models for some intelligence and attainment tests*. Copenhagen, Denmark: The Danish Institute for Educational Research.
- Romeo, F. F. (2001). A recommendation for a campus anti-stalking policy and procedures handbook. *College Student Journal*, 35, 514–516.
- Sellers, C. S. (1999). Self-control and intimate violence: an examination of the scope and specification of the general theory of crime. *Criminology*, 37(2), 375–404.
- Sellers, C., & Bromley, M. (1996). Violent behavior in college student dating relationships: implications for campus service providers. *Journal of Contemporary Criminal Justice*, 12, 1–27.
- Schreck, C. J. (1999). Criminal victimization and low self-control: an extension and test of a general theory of crime. *Justice Quarterly*, 16, 633–654.
- Schreck, C. J., Wright, R. A., & Miller, J. M. (2002). A study of individual and situational antecedents of violent victimization. *Justice Quarterly*, 19, 159–180.
- 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, 319–340.
- Sheridan, L., Gillett, R., & Davies, G. (2002). Perceptions and prevalence of stalking in a male sample. *Psychology, Crime & Law*, 8, 289–310.
- Slashinski, M. J., Coker, A. L., & Davis, K. E. (2003). Physical aggression, forced sex, and stalking victimization by a dating partner: an analysis of the National Violence Against Women Survey. *Violence and Victims*, 18, 595–617.
- Stewart, E. A., Elifson, K. W., & Sterk, C. E. (2004). Integrating the General Theory of Crime into an exploration of violent victimization among female offenders. *Justice Quarterly*, 21, 159–181.
- Straus, M. A., Hamby, S. L., Boney-McCoy, S., & Sugarman, D. B. (1996). The Revised Conflict Tactics Scales (CTS2): development and preliminary psychometric data. *Journal of Family Issues*, 17, 283–316.
- Tjaden, P., & Thoennes, N. (1998). Stalking in America: Findings from the National Violence Against Women Survey (Special Report No. NCJ 1669592). National Institute of Justice, Centers for Disease Control and Prevention. Washington, DC: Bureau of Justice Statistics, U.S. Department of Justice.
- Turner, M. G., & Piquero, A. R. (2002). The stability of self-control. *Journal of Criminal Justice*, 30(6), 457–471.
- Widom, C. S. (1989). Child abuse, neglect, and violent criminal behavior. *Criminology*, 27, 251–271.

Kathleen A. Fox is an Assistant Professor in the College of Criminal Justice at Sam Houston State University. Dr. Fox earned her Ph.D. in Criminology, Law and Society at the University of Florida. Her research interests include crime victimization, gender, gangs, and fear of crime.

Angela R. Gover is an Associate Professor in the School of Public Affairs at the University of Colorado Denver. Dr. Gover earned her Ph.D in Criminology and Criminal Justice from the University of Maryland. Her research interests include policy relevant family violence issues, violence against women, gender and crime, and evaluation research. Some of her published work has appeared in *Violence and Victims*, *Criminology and Public Policy*, *Justice Quarterly*, *Deviant Behavior*, *Journal of Criminal Justice*, and *Violence Against Women*. Dr. Gover is currently engaged in numerous research projects focused on campus safety and relationship issues, law enforcement and judicial responses to domestic violence, and mental health consequences of intimate partner violence for women and children.

Dr. Catherine Kaukinen is an Associate Professor of Public Affairs and Director of the Criminal Justice Programs at the University of Colorado at Colorado Springs. She received her Ph.D. in Sociology from the University of Toronto in 2001. Her current research interests include intimate partner violence, progression and stability of dating violence among adolescents, risk and protective factors for violent victimization, the mental health consequences of violent victimization, and the relationship between family structure and adolescent problem behaviors. Her work has appeared in *Criminology*, *Journal of Marriage and Family*, *Journal of Research in Crime & Delinquency*, *Journal of Interpersonal Violence*, *Violence against Women*, *Journal of Family Violence*, and *Violence and Victims*.