The Effects of Low Self-Control, Unstructured Socializing, and Risky Behavior on Victimization

by

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ABSTRACT

Prior research has looked at the effects of low self-control, unstructured socializing, and risky behaviors on victimization. In previous studies, however, the differences between routine activity and lifestyle theory have been overlooked. The aim of this study is to test the unique characteristics of both theories independently. Specifically, this study addresses: (1) the mediating effects of unstructured socializing on low self-control and victimization and (2) the mediating effects of risky behaviors on low self-control and victimization. Data were collected using a self-administered survey of undergraduate students enrolled in introductory criminal justice and criminology classes (N = 554). Negative binomial regression models show risky behaviors mediate much of the effect low self-control has on victimization. Unstructured socializing, in contrast, does not mediate the impact of low self-control on victimization.

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Introduction

Victimization research is typically driven by two theoretical perspectives. Routine activity theory focuses on two types of socializing: structured and unstructured. Structured socializing takes place when an authority figure is present, while unstructured socializing is characterized by a lack of guardianship. Lifestyle theory places emphasis on the *types* of activities that expose people to motivated offenders (Hindelang, Gottfredson, & Garofalo, 1978). Routine activity theory suggests it is the act of leaving the house and engaging in unstructured socializing, such as going to the movies, going shopping, and eating out at a restaurant, that increases the risk of victimization. In contrast, lifestyle theory focuses on the types of behaviors individuals engage in. Risky behaviors that expose people to motivated offenders are posited to lead to victimization (e.g., confronting people who make you mad and inviting strangers to your home late at night after a party). Prior research has placed little importance on the unique characteristics of the two theories and instead often lump them together.

Failing to treat routine activity and lifestyle theories as distinct is potentially problematic. While the two theories share some commonalities (e.g., the salience of everyday behaviors), there are features that differentiate them. Studies frequently use routine activity theory to predict victimization risk, however, their measures of routine activities often incorporate risky behaviors (Fisher, Diagle, & Cullen, 2010; Miethe, Stafford, & Long, 1987; Reyns, Henson, & Fisher, 2011). Risky behaviors, however, are not incorporated into the fundamentals of routine activity theory, rather they are a consequence of victims and offenders converging in time and space. Recently, researchers have begun to incorporate low self-control theory into the study of

victimization (Pratt et al., 2014; Schreck, 1999). For example, researchers posit that self-control influences individuals' routine activities and risky behaviors. These previous limitations warrant a more thorough empirical test of low self-control, unstructured socializing, and risky behaviors in a victimization context.

This study aims to contribute to the victimization literature by developing risky behavior scales and determining whether they are related to levels of self-control and victimization. This study will also assess hypotheses derived from routine activity theory. Using survey data from a university-based sample, several ordinary least-squares (OLS) regression models are estimated to identify relationships between low self-control, unstructured socializing, and risky lifestyles. Negative binomial regressions are used to test whether unstructured socializing and/or risky behaviors mediate the relationship between low self-control and victimization.

Review of Literature

Low self-control has been found to influence the types of behaviors people engage in (Pratt & Cullen, 2000; Reisig & Pratt, 2011), including involvement in unstructured routines and risky behaviors. Theoretically, involvement in risky behaviors increases one's proximity to motivated offenders, which in turn increases victimization risk. What is unknown, however, is whether involvement in unstructured routines and participating in inherently risky activities both mediate the low self-control-victimization link.

Low Self-Control

In *A General Theory of Crime*, Gottfredson and Hirschi (1990) introduced the field of criminology to the concept of self-control and how it relates to crime and

deviance. Low self-control is considered to be a latent trait, and is characterized by impulsivity, risk taking, and instant gratification, among other factors. Criminal opportunities provide immediate gratification, are more appealing to impulsive people, and are often risky in nature. In a meta-analysis of empirical studies on the low self-control-crime link, Pratt and Cullen (2000) found considerable support.

Self-control is also important when studying victimization. Historically, measures of low self-control have been included in many victimization studies (Pratt et al., 2014; Schreck, 1999; Schreck, Stewart, & Fisher, 2006; Turanovic & Pratt, 2013, 2014). These studies have demonstrated that low self-control influences several types of victimization, including repeat victimization (Turanovic & Pratt, 2014), homicide (Piquero et al, 2005), online victimization (Bossler & Holt, 2010), and fraud victimization (Holtfreter, Reisig, & Pratt, 2008). More recently, Pratt et al. (2014) conducted a meta-analysis that found empirical support for the link between low self-control and victimization. Put simply, the weight of the evidence suggests that low self-control increases the risk of victimization.

While low self-control increases victimization risk, it has also been found to influence the types of routines people engage in. For example, Holtfreter, Reisig, and Pratt (2008) found a significant correlation between low self-control and remote purchasing. Several other studies have also tested the effect of low self-control on routine behaviors (see Reyns, 2013; Turanovic & Pratt, 2014). Given that low self-control is related to both victimization and routine activities, the relationship between low self-control and victimization may be indirect.

Routine Activity Theory

Routine activity theory consists of three components: (1) a motivated offender,

(2) a suitable target, and (3) lack of a capable guardian. The theory proposes that crime is more likely to occur when these three elements converge in time and space. Routine activities are defined as activities that involve leaving the house (Cohen & Felson, 1979). Osgood et al.'s (1996) revised version of the theory distinguishes between "unstructured" and "structured" socializing. Structured socializing includes activities where an authority figure is present (e.g., community service/volunteer work and attending religious services), whereas an authority figure is not present (or is largely ineffective) in unstructured socializing (e.g., going to the movies, informally getting together with friends, and going shopping). In this way, Osgood et al. (1996) distinguish between which everyday routines lead to crime.

Unstructured socializing lacks supervision and provides opportunities for offending if a suitable target is present. Osgood et al. (1996) identify several situational factors that contribute to participation in unstructured routines as it relates to deviance, such as situational motivation and time with peers. Situational motivation differs from Cohen and Felson's (1979) "motivated offender" by placing motivation on the situation rather than the person. Put differently, crime is more likely to occur when the opportunity presents itself, rather than an offender seeking out criminal opportunities. This distinction places importance on situational factors rather than individual characteristics. Osgood et al. (1996) argue that spending time with peers can increase exposure to situational crime opportunities. Osgood et al. (1996) found that significant predictors of criminal behavior include riding around in a car for fun, going to parties, and evenings out. By and large, Osgood et al. (1996) found that the most important factors influencing deviance were the absence of an authority figure and the lack of structured socializing.

Does low self-control increase participation in unstructured socializing and, in turn, increase proximity to motivated offenders? Forde and Kennedy (1997) addressed the relationship between low self-control, routine activities, and victimization. Their routine activity measure included items such as going to the movies, going to restaurants, and attending sporting events. Routine activities were found to increase exposure to motivated offenders and increase risk of victimization. Additionally, low self-control was found to increase participation in these unstructured routines.

Routine activities have also been linked to victimization. Reyns (2013) found that several online routines increase identity theft victimization. Specifically, online banking, shopping, e-mail/instant messaging, and downloading media were found to significantly increase victimization. Additional studies have used routine activities to examine victimization in different contexts, such as in the workplace (Lynch, 1987) and at school (Popp & Peguero, 2011). Many scholars have also assessed the relationship between low self-control and routine activities (see Holtfreter, Reisig, & Pratt, 2008; Pratt, Holtfreter, & Reisig, 2010). For example, Pratt, Holtfreter, and Reisig (2010) found that an increase in both hours spent online and online purchases were positively related to online victimization targeting. Low self-control influenced these online behaviors.

Several studies address how routine activities influence different types of victimization. For example, Henson et al. (2010) evaluated the relationship between low self-control, unstructured/structured socializing, and victimization. Low self-control was found to significantly influence participation in unstructured routines, including measures of an electronic lifestyle (e.g., time spent online and time spent in an online community), driving around, and time spent with a significant other. This study, however, found

neither unstructured nor structured socializing mediate the relationship between low self-control and both minor and serious victimization. In sum, low self-control has been found to influence involvement in unstructured routine activities, and routine activities have been found to increase victimization risk.

Lifestyle Theory

Under the lifestyle framework, Hindelang, Gottfredson, and Garofalo (1978) argue that victimization is influenced by risky behavior. Pratt et al. (2014, p. 104) explain the difference between risky and routine activities this way: "it is not simply going outside of the house that matters, but it is instead the differential risks associated with *what one is actually doing outside* – such as planting flowers in a garden versus selling drugs on a street corner – that influences one's susceptibility to victimization" (emphasis in the original). Lifestyle theory consists of six different components: role expectations, structural constraints, adaptations, lifestyle associations, and exposure (Hindelang, Gottfredson, & Garfalo, 1978). Risky behaviors that expose potential victims to motivated offenders is what largely separates lifestyle and routine activity theories.

Risky behaviors can be measured in many different ways. Koo, Chitwood, and Sanchez (2008) operationalize risky behaviors using measures such as risky personal networks (e.g., association with drug users as housemates, peers, and/or sexual partners), drug use (e.g., use of heroin, cocaine, and alcohol use), and street business (e.g., street hustling, property crime, and con games). Henson et al. (2010) use a 13-item delinquency scale to capture participation in risky lifestyles. Similarly, Schreck (1999) uses a criminality index as a proxy for risky lifestyles. This index includes variables such as

beating someone up, purposefully damaging property, and using force to get something from another person.

The pathway between low self-control, risky behaviors, and victimization is similar to that identified for unstructured socializing. The primary difference between these two theoretical approaches, however, lies in the types of activities victims engage in, specifically risky behaviors versus unstructured socializing. Low self-control increases the frequency in which people engage in risky behaviors (Turanovic & Pratt, 2013, 2014). Involvement in risky behavior provides opportunity for motivated offenders to engage in crime (Schreck, Stewart, & Fisher, 2006). Put simply, involvement in risky behaviors increases victimization risk. For example, one cannot get victimized unless a motivated offender is nearby. Together, these individual relationships create a distinct pathway to victimization.

Comparatively less research has focused on the relationship between risky behaviors, low self-control, and victimization. Turanovic and Pratt (2014) addressed whether low self-control influences involvement in risky behaviors both before and after victimization. They found that low self-control directly influences whether one engages in risky behaviors. Additionally, findings from their study show that low self-control influenced whether the victim continued to engage in risky behaviors (e.g., hanging around with friends and getting together with friends where drugs and alcohol are available) following their initial victimization. Schreck, Stewart, and Fisher (2006) also investigated the relationship between low self-control, risky behaviors, and victimization. The risky behaviors included in their study were delinquent peers, self-reported delinquency, and social control measures. They found that risky behaviors mediated the

relationship between low self-control and victimization. Stewart, Elifson, and Sterk (2004) test whether risky behaviors (i.e., property offending and violent offending) mediate the relationship between low self-control and violent victimization. Risky behaviors used included public drug use, alcohol use, and associating with drug users or dealers. None of the risky behaviors fully mediated the effect of low self-control on violent victimization. These studies provide theoretical and empirical evidence for a potential mediating effect of risky behaviors on the low self-control-victimization link.

Current Focus

The focus of this study is to examine the relationship between low self-control and victimization, and the potential mediating effects of unstructured socializing and risky behaviors. Historically, studies have not distinguished between measures derived from routine activity and lifestyle theory. This approach fails to appreciate the unique characteristics of each theory. To establish a mediating relationship, several empirical conditions must be met (Baron & Kenny, 1986). First, low self-control must be observed to influence victimization. Therefore, the following hypothesis will be tested:

Hypothesis 1: The relationship between low self-control and victimization is positive and statistically significant.

Routine activity theory focuses on "structured" and "unstructured" socializing, with an emphasis on whether authority figures are present. Unstructured routines include, but are not limited to, going shopping, going to the movies, and going out to eat. In contrast, lifestyle theory focuses on specific types of activities, especially those that are "risky." Risky lifestyles involve behaviors that bring individuals into close proximity to motivated offenders. The second necessary condition for mediation is the relationship between the

independent variable (i.e., low self-control) and the mediator (i.e., unstructured socializing and risky behaviors). The following hypotheses will be tested to satisfy this requirement:

Hypothesis 2: The relationship between low self-control and unstructured socializing is positive and statistically significant.

Hypothesis 3: The relationship between low self-control and risky behavior is positive and statistically significant.

Finally, a relationship between unstructured socializing and risky behavior measures and victimization must be established. To satisfying this condition for mediation the following hypotheses will be tested.

Hypothesis 4: The relationship between unstructured socializing and victimization is positive and statistically significant.

Hypothesis 5: The relationship between risky behavior and victimization is positive and statistically significant.

The current study tests whether unstructured socializing and risky behavior measures mediate the relationship between low self-control and victimization. Accordingly, the following two hypotheses will be tested:

Hypothesis 6: Unstructured socializing mediates the relationship between low self-control and victimization.

Hypothesis 7: Risky behavior mediates the relationship between low self-control and victimization.

Figure 1 summarizes the relationships that will be tested in the current study.

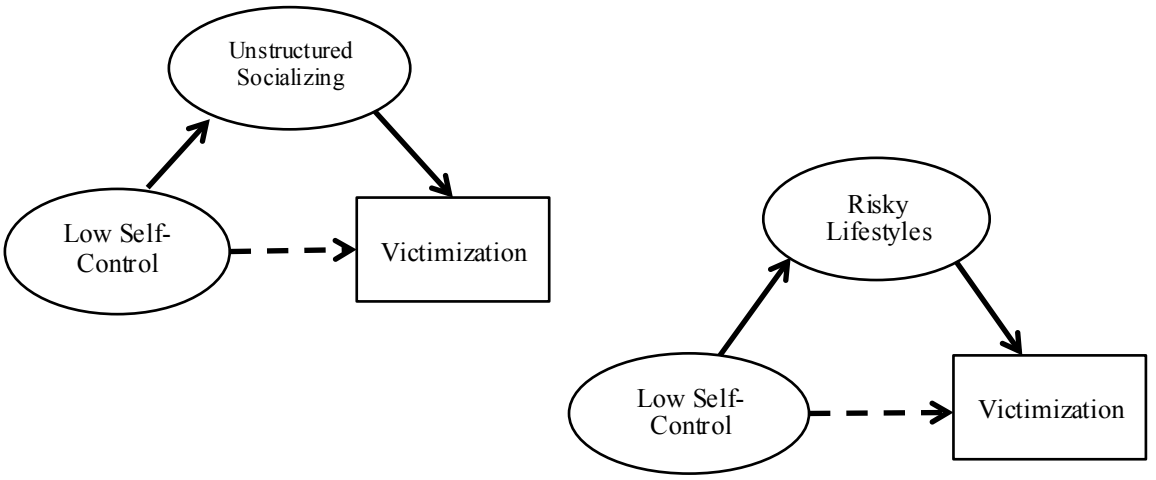

Figure 1: Research Hypotheses
Note. Statistically significant relationships are represented by solid arrows. Dashed arrows indicate attenuated relationships.

Methods

Participants

Participants in the current study were undergraduate students at a large southwestern university enrolled in introductory level criminology and criminal justice (CCJ) classes. The sample is fairly evenly split in terms of gender (54.1 percent female and 45.9 percent male). With regards to age (in years), 42.9 percent were 18, 24.8 percent were 19, 10.3 percent were 20, 8.0 percent were 21, and 14.0 percent were 22 or older. The racial/ethnic background of the sample was 52.4 percent White, 6.2 percent African American, 25.2 percent Latino/Hispanic, 2.0 percent Native American, 6.5 percent Asian, and 7.8 percent self-identified as "other." The diversity of the sample was likely influenced by the fact that the university from which the participants were recruited had

an 88 percent acceptance rate in 2013, and the student population is comprised of undergraduates from all fifty states and a number of countries around the world.

Procedure

An in-class survey was administered during the fall semester of 2013. The research team was given permission from eight instructors to distribute surveys in ten undergraduate CCJ classes. Introductory courses not only serve as a requirement for CCJ majors, but also fulfill a general university requirement, resulting in a diverse group of students from many different majors. Participation in the survey was completely voluntary and students were awarded extra-credit regardless of whether they decided to participate. A member of the research team was available to answer any questions during the administration of the survey. Once completed, the surveys were placed in a sealed box. Participants were asked to not include any personal identification that would enable someone to identify them. Ensuring anonymity should increase truthfulness in responses. Completion of the surveys took between 10 and 30 minutes (average = 24 minutes).

A total of 559 students were recruited to participate in the survey. However, five students declined to participate, resulting in a 99 percent participation rate (N = 554). Not all participating respondents completed every survey item. Missing data were imputed using similar response pattern imputation (SRPI) in LISREL version 9.1 (Scientific Software International, Chicago, IL). SRPI has been shown to work well, compared to alternative approaches, for handling missing data (Gmel, 2001). Following the imputation process, complete data was available for 543 participants.

Measures

Victimization. Participants were administered six items designed to capture victimization experiences. Respondents were asked if, in the past year, they had been a victim of a variety of offenses. The scale consists of items that represent main sources of victimization, such as assault/battery ("Threatened to hit you," 39.7 percent; "Threatened you with a weapon of some kind," 14.7 percent; "Hit, kicked or punched you for reasons other than self-defense," 26.5 percent), theft ("Took something of yours without permission," 62.6 percent), robbery ("Used or threatened force to take your property," 11.1 percent), and vandalism ("Deliberately damaged your property," 25.1 percent). This measure is based on the measure used in the 1996 Tucson Youth Project (TYP) survey (Schreck, 1999). Responses were binary coded (0 = no, 1 = yes). A majority of respondents experienced little to no victimization while a smaller proportion experienced high victimization (0 = 29.3 percent, 1 = 21.7 percent, 2 = 19.1 percent, 3 = 12.3 percent, 4 = 8.5 percent, 5 = 4.3 percent, 6 = 4.3 percent). The victimization scale is a six-item count variable with scores ranging from 0 to 6. Higher scale scores represent higher victimization.

Routine Activities. Six routine activity measures were included that reflect everyday behaviors that are not inherently risky. Three survey items reflecting structured routines were used ("Attend religious services", "Volunteer or perform community service", and "Leave your residence to study or do homework"). Structured routines are defined as everyday activities where an authoritative figure is present (Osgood et al., 1996). Respondents were asked to self-report how often they engaged in these structured routines over the past year. Internal consistency of the scale was inadequate (Cronbach's

alpha < 0.50) so individual items were used. Responses were coded as 1 (*never*) to 4 (*frequently*). Higher scores represent higher participation in each form of structured activity.

Survey items that reflect unstructured socializing were also included. Osgood et al. (1996) define unstructured socializing as those where an authority figure is not present. In this study, unstructured routines are operationalized as activities that take place inside or outside the home, where an authoritative figure is not present. Osgood et al. (1996) explain how individuals without "role obligations" (e.g., peers and passersby) may serve as authoritative figures, however, they are less likely to exert social control. While peers and passersby are likely present in unstructured routines, the presence of conventional authoritative figures is less likely. Three unstructured activity survey items were used ("Go to the movies", "Go shopping at a department store", and "Go out to eat at a restaurant"). The level of internal consistency between these items was low (Cronbach's alpha < 0.60) so measures were used individually. Respondents were asked how often they engaged in these activities over the past year. Responses were measured on a four-point scale ranging from 1 (*never*) to 4 (*frequently*). Higher scores reflect greater levels of unstructured activity.

Risky Lifestyles. The current study conceptualizes risky lifestyles as consisting of behaviors that increase exposure to motivated offenders. The following measures were used.

Drug lifestyle. The drug lifestyle scale is comprised of three measures of drug related survey items ("Used marijuana or some other drug", "Bought marijuana or some other drug", and "Sold marijuana or some other drug"). The three items each had a

response set ranging from 1 (*never*) to 4 (*frequently*). The drug lifestyle variable is a summated scale. The internal consistency of the scale is adequate (Cronbach's alpha = .82; mean inter-item r = .63). Scores range from 3 to 12 with higher scores representing higher involvement in drug related activities.

Party lifestyle. The party lifestyle scale is comprised of four party-related survey items ("Get together with friends, informally", "Made a lot of noise at night", "Go to parties", and "Stay out past midnight"). The response set ranged from 1 (*never*) to 4 (*frequently*) for each item. The party lifestyle variable is a summated scale that possesses acceptable internal consistency (Cronbach's alpha = .73; mean inter-item r = .40). Scores range from 4 to 16 with higher scores reflecting more involvement in a party lifestyle.

Promiscuous lifestyle. Participants were asked about several sexual behaviors. Three survey items compromise the promiscuous lifestyle scale ("Have sex with someone you don't know very well", "Have sex with someone who you know is having sex with other people", and "Invite strangers to your home late at night after a party"). The response set ranged from 1 (*never*) to 4 (*frequently*). Promiscuous behavior is operationalized as a summated scale. This measure exhibits sufficient internal consistency (Cronbach's alpha = .77; mean inter-item r = .52). Scores for the scale range from 3 to 12. Higher scores reflect higher levels of promiscuity.

Aggressive lifestyle. Four survey items were used to create a summated scale for aggressive lifestyle ("Got into a fight with another person with the idea of physically harming them", "Raise your voice to defend yourself in an argument", "Confront people who make you mad", and "Get even with people who cross you"). The response set

ranged from 1 (*never*) to 4 (*frequently*). The aggressive lifestyle measure exhibits acceptable internal consistency (Cronbach's alpha = .64; mean inter-item r = .31). Scores for the scale range from 4 to 16. Higher scores reflect greater involvement in aggressive activity.

Principal components analysis (PCA) was used to determine whether the survey items loaded on the hypothesized components (see Table 1). Summary statistics for the full list of items used to construct the risky lifestyle scales and corresponding psychometrics are provided in Appendix A. A majority of the items used to construct the scales were not significantly correlated (below .30). This is overwhelmingly evident among the routine activity measures. The weak correlation between these latent constructs warrants orthogonal rotation. Thompson (2004) identifies varimax rotation not only as the most common orthogonal rotation, but the most widely used rotation of any kind.

Spector (1992) argues that PCA is an appropriate model to use for data reduction. The Kaiser-Guttman (or K1) criterion ($\lambda > 1.0$) was used to identify factors. Eigenvalues for the factors ranged from 1.11 to 4.51, falling above the 1.0 threshold. Although this practice is widely accepted (Fabrigar et al., 1999), major components may be overestimated. To circumvent this potential limitation, visual scree test was used to confirm the results from the K1 test (see Appendix B).

The principal components analysis identified six latent constructs. These six components conformed to hypothesized expectations. Several risky lifestyles emerged, as well as structured and unstructured routines. Four factors were identified as risky lifestyles: drug, party, promiscuous, and aggressive lifestyles. Additionally two routine

Table 1. Varimax-rotated principal component matrices for risky lifestyle and routine activity measures. (N=544)

Scales and items	I	II	III	IV	V	VI
Drug lifestyle						
1. Used marijuana or some other drug	**0.83**	0.24	0.17	0.03	-0.09	-0.07
2. Bought marijuana or some other drug	**0.89**	0.18	0.14	0.06	-0.07	-0.04
3. Sold marijuana or some other drug	**0.78**	0.01	0.14	0.15	0.06	-0.01
Party lifestyle						
4. Get together with friends, informally	-0.03	**0.65**	0.01	-0.01	0.16	0.23
5. Made a lot of noise at night	0.18	**0.65**	0.09	0.19	0.02	-0.10
6. Go to parties	0.24	**0.70**	0.29	0.12	0.05	-0.08
7. Stay out past midnight	0.10	**0.73**	0.20	0.16	0.10	-0.01
Promiscuous lifestyle						
8. Have sex with someone you don't know very well	0.14	0.13	**0.82**	0.21	-0.01	-0.14
9. Have sex with someone you know is having sex with other people	0.12	0.14	**0.82**	0.14	-0.02	-0.10
10. Invite strangers to your home late at night after a party	0.20	0.22	**0.61**	0.05	0.05	0.05
Aggressive lifestyle						
11. Got into a fight with another person with the idea of physically harming them	0.21	-0.14	0.34	**0.58**	-0.02	0.02
12. Raise your voice to defend yourself in an argument	-0.03	0.35	-0.07	**0.66**	0.05	0.08
13. Confront people who make you mad	0.06	0.18	0.02	**0.70**	0.09	0.03
14. Get even with people who cross you	0.09	0.06	0.26	**0.66**	0.11	-0.02
Unstructured routines						
15. Go to movies	-0.14	0.07	-0.17	0.05	**0.70**	-0.02
16. Go shopping at a department store	-0.04	0.16	0.06	0.09	**0.65**	0.17
17. Go out to eat at a restaurant	0.10	0.04	0.11	0.06	**0.75**	0.01
Structured routines						
18. Attend religious services	-0.01	-0.12	-0.27	0.15	0.14	**0.62**
19. Volunteer or perform community service	-0.02	0.07	-0.15	0.07	-0.09	**0.76**
20. Leave your residence to study or do homework	-0.07	0.07	0.21	-0.12	0.14	**0.63**
Eigenvalues	4.51	2.26	1.48	1.34	1.17	1.11

Note. Loadings greater than an absolute value of 0.40 shown in bold face type.

activity factors were identified. One factor consisted of structured routines, while the other consisted of unstructured routines.

Using the four risky lifestyles, a combined risk scale was operationalized as a weighted factor score (see Table 2). Doing so provides for a more parsimonious assessment. While the above mentioned risky lifestyles identify specific categories of risky behavior, the combined risk scale reflects a general risky lifestyle. Principal components analysis was used, and the loadings ranged from 0.67 to 0.76. The eigenvalue was 2.06, well above the 1.0 threshold. Reliability analysis of the scale shows adequate internal consistency (Cronbach's alpha = .68; mean inter-item r = .35). Higher scores reflect greater involvement in a risky lifestyle.

Table 2. Principal components matrix for risky lifestyle scale.

Items	Loadings
Drug lifestyle	0.69
Party lifestyle	0.75
Promiscuous lifestyle	0.76
Aggressive lifestyle	0.67
Eigenvalue	2.06
Cronbach's alpha = 0.68	
Mean inter-item r = 0.35	
Mean item-total r = 0.47	

Low self-control. Self-control was assessed using the Brief Self-Control scale (Tangney et al., 2004). The scale consists of 13 items and has shown to be valid and reliable for capturing variations in self-control among university-based samples (Reisig and Pratt, 2011). Included in the scale are items reflecting self-discipline ("I am good at

resisting temptation"), impulsivity ("Sometimes I can't stop myself from doing something, even if I know it is wrong"), healthy habits ("I refuse things that are bad for me"), and work ethic ("I am able to work effectively toward long-term goals"). Responses were arranged along a scale from 1 (*not at all*) to 5 (*very much*). The scale was coded so that higher scores reflect lower levels of self-control. Consistent with previous studies, the internal reliability for the scale was adequate (Cronbach's alpha = .80; mean inter-item r = .43).

Control Variables. Three control variables were included. Male was coded 0 (*female*) and 1 (*male*). Age was coded using nine categories (1 = *18 years*, 2 = *19 years*, 3 = *20 years*, 4 = *21 years*, 5 = *22 years*, 6 = *23 years*, 7 = *24 years*, 8 = *25 years*, and 9 = *26 years or older*). White was coded as a dummy variable (1 = white, 0 = otherwise).

Analytic Strategy

The analysis proceeds in multiple steps. First, the routine activity and risky lifestyle variables were regressed onto low self-control and statistical controls using ordinary least-squares (OLS) regression. This model is used to test *hypotheses 2* and *3*. Next, victimization is regressed on low self-control and control variables to establish a baseline relationship (*hypothesis 1*). Negative binomial regression is used due to evidence of overdispersion in the dependent variable (mean = 1.80, variance = 2.91). The effects of both unstructured socializing and risky lifestyles on victimization are also assessed (*hypotheses 4* and *5*). Finally, victimization is regressed on low self-control, unstructured socializing, and control variables (*hypothesis 6*). Several steps are taken to assess the effects of risky behaviors on victimization. Victimization is regressed on low self-control, control variables, and each of the four identified risky lifestyle scales individually.

Finally, victimization is regressed on low self-control, control variables, and the combined risky lifestyle scale (*hypothesis 7*). Model diagnostics were run to rule out harmful effects resulting from collinearity and heteroskedasticity. Using the Breusch-Pagan test, evidence for heteroskedasticity was found (Breusch & Pagan 1979). To correct for potentially biased standard errors, robust standard errors were estimated. The zero-order correlations between the independent variables do not exceed an absolute value of 0.40. This value is well below standard threshold of 0.70 (Licht, 1995). Additionally, variance inflation factors (VIFs) were calculated for the independent variable. The VIFs were acceptable, ranging from 1.07 to 1.57.

Results

Table 3 presents the correlations for the variables used in the study. These estimates provide evidence that support several of the hypothesized theoretical relationships. The routine activity variables, however, are weak and most do not reach statistical significance. The correlations for unstructured socializing and low self-control range from -0.03 to 0.12. The only significant correlate is "going out to eat." Similar results are found when looking at structured routines. The correlations range from -0.13 to 0.02, with "attending religious services" being the only variable significantly associated with low self-control. The negative direction of this correlation suggests those who attend religious services self-report higher levels of self-control. The weak relationships between unstructured socializing and low self-control provide minimal support for *hypothesis 2*. Correlates between victimization and unstructured socializing variables fail to reach statistical significance. In sum, these observations fail to support *hypothesis 4*. What is more, the observed correlations suggest little reason to expect that

Table 3. Correlation matrix for study variables

	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Victimization	1.80	1.71	--														
2. Low self-control	34.5	8.23	0.11**	--													
3. Drug lifestyle	4.19	2.06	0.05	0.31***	--												
4. Party lifestyle	11.4	2.64	0.13**	0.32***	0.36***	--											
5. Promiscuous lifestyle	4.24	1.84	0.17***	0.24***	0.39***	0.40***	--										
6. Aggressive lifestyle	8.62	2.34	0.30***	0.22***	0.24***	0.37***	0.35***	--									
7. Risky lifestyle	0.00	1.00	0.23***	0.38***	0.69***	0.75***	0.76***	0.67***	--								
8. Go to movies	3.02	0.76	-0.01	-0.03	-0.16***	0.09*	-0.11	0.07	-0.04	--							
9. Go shopping	2.88	0.88	-0.03	0.06	-0.02	0.20***	0.09*	0.18***	0.16***	0.26***	--						
10. Go out to eat	3.16	0.76	0.06	0.12**	0.06	0.18***	0.12**	0.17***	0.19***	0.23***	0.29***	--					
11. Attend religious services	1.99	1.07	0.06	-0.13**	-0.13**	-0.08*	-0.21***	0.04	-0.14***	0.10*	0.17***	0.06	--				
12. Volunteer or community service	2.33	0.98	0.06	-0.11	-0.07	0.02	-0.14***	0.04	-0.05	0.05	0.06	-0.01	0.34***	--			
13. Leave home to study	2.50	0.97	0.03	0.02	-0.04	0.07	-0.01	0.05	0.03	0.08*	0.12**	0.10*	0.11**	0.18***	--		
14. Male	0.46	--	0.16***	0.08	0.14***	0.06	0.30***	0.19***	0.24***	-0.05	-0.28***	-0.05	-0.14***	-0.21***	-0.15***	--	
15. Age	2.51	2.07	-0.03	-0.02	-0.04	-0.21***	0.01	-0.06	-0.11**	0.01	-0.02	0.12**	-0.04	-0.14***	0.02	0.13**	--
16. White	0.52	--	-0.01	-0.01	-0.01	0.09*	0.10*	0.00	0.07	-0.14***	-0.13**	-0.03	0.10*	-0.03	-0.06	0.10**	-0.07

*$p \leq 0.05$; **$p \leq 0.01$; ***$p \leq 0.001$ (two-tailed test)

the unstructured socializing will fully mediate the relationship between low self-control and victimization. Additional analysis is needed to empirically determine whether this is indeed the case.

When it comes to the bivariate associations between low self-control and risky behaviors, the story changes dramatically. As expected, low self-control is significantly and positively associated with all risky lifestyle variables. For example, involvement in a drug lifestyle ($r = .31$), party lifestyle ($r = 0.32$), promiscuous lifestyle ($r = 0.24$), and aggressive lifestyle ($r = 0.22$) are all significantly related to low self-control at the 0.001 level. Additionally, the combined risky lifestyle scale is also a significant correlate ($r = 0.38$, $p \leq 0.001$). Put differently, reduced self-control is associated with involvement in a host of risky behaviors, such as using drugs, partying, and the like. These findings provide preliminary support for *hypothesis 3*. Evidence is also observed in support of *hypothesis 5*. More frequent involvement in risky lifestyles increases the likelihood of victimization. The strength of the associations varies. Participation in an aggressive lifestyle ($r = 0.30$) is most strongly associated with victimization, while the drug lifestyle variable ($r = 0.05$) is the weakest correlate. These observations suggest that the effects of different forms of risk are not invariant. Taken together, the bivariate findings in Table 3 show that individuals who report more frequent involvement in risky lifestyles are at a greater risk of victimization. Finally, low self-control is positively and significantly associated with victimization ($r = 0.11$, $p \leq 0.01$). This latter finding is consistent with theoretical expectations (*hypothesis 1*).

Low Self-Control and Unstructured Socializing/Risky Behavior

Next, several regression models were estimated to test the hypotheses more rigorously. Table 4 shows six OLS models that regress routine activity measures (unstructured and structured) onto low self–control and the control variables. The *F*-tests for the models are all statistically significant ($F = 2.67$ to 13.38), thus indicating the models provide better predictions than by chance alone. Furthermore, the models show low self-control and the control variables explain a modest portion of the variation in routine activities ($R^2 = 0.02$ to 0.09). As previously noted, several empirical conditions must be met to detect mediation. The first of these conditions is that the low self-control scale and routine activity measures are related. Table 4 shows several significant relationships. Of the six structured and unstructured routine activity variables, four reach statistical significance. To that end, Model 1 and Model 2 indicate low self-control is significantly associated with two structured routine measures. Model 1 shows that low self-control has the largest effect ($\beta = -0.12$, $p \leq 0.01$) on attending religious services. Put differently, a one standard deviation increase in low self-control results in a 0.12 decrease in attending religious services. This finding is consistent with bivariate correlations in Table 3. Overall, the model accounts for 4 percent of the variation in attending religious services ($R^2 = 0.04$). Model 2 regresses low self-control on the structured routine of volunteering. Low self-control has a negative and significant effect on volunteering ($\beta = -0.09$, $p \leq 0.01$), indicating that individuals possessing lower levels of self-control are less likely to be active volunteers.

Attention now turns to the unstructured socializing models. Model 4 and Model 6 show the positive and significant relationships between low self-control and unstructured

Table 4. The effect of low self-control on (un)structured routines

	Attend religious services[a]			Volunteer[a]			Leave home to study[a]			Go shopping[a]			Go out to eat[a]			Go to movies[a]		
	Model 1			Model 2			Model 3			Model 4			Model 5			Model 6		
	b (SE)	β	*t*-ratio	*b* (SE)	β	*t*-ratio	*b* (SE)	β	*t*-ratio	*b* (SE)	β	*t*-ratio	*b* (SE)	β	*t*-ratio	*b* (SE)	β	*t*-ratio
Low self-control	-0.02 (0.01)	-0.12	-2.90**	-0.01 (0.01)	-0.09	-2.11*	0.00 (0.01)	0.03	0.74	0.01 (0.00)	0.09	2.05*	0.00 (0.00)	-0.02	-0.04	0.01 (0.00)	0.13	2.98**
Male	-0.24 (0.09)	-0.11	-2.67**	-0.37 (0.08)	-0.19	-4.42***	-0.29 (0.08)	-0.15	-3.38***	-0.48 (0.07)	-0.27	-6.47***	-0.06 (0.07)	-0.04	-0.86	-0.00 (0.06)	-0.07	-1.72
Age	-0.02 (0.02)	-0.03	-0.79	-0.05 (0.02)	-0.11	-2.34*	0.02 (0.02)	0.04	0.87	0.00 (0.02)	0.01	0.15	0.00 (0.02)	0.00	0.07	0.05 (0.01)	0.13	3.52***
White	-0.19 (0.09)	-0.09	-2.09	-0.04 (0.08)	-0.02	-0.52	-0.07 (0.08)	-0.03	-0.78	-0.17 (0.17)	-0.10	-2.36*	-0.19 (0.06)	-0.13	-3.02**	-0.03 (0.07)	-0.02	-0.43
Constant	2.79 (0.21)	-	13.13***	3.02 (0.20)	-	15.38***	2.48 (0.20)	-	12.52***	2.87 (0.17)	-	16.68***	3.20 (0.15)	-	21.43***	2.70 (0.16)	-	17.25***
	F-test = 5.66***			F-test = 9.01***			F-test = 3.43**			F-test = 13.38**			F-test = 2.67*			F-test = 5.92***		
	R^2 = 0.04			R^2 = 0.07			R^2 = 0.02			R^2 = 0.09			R^2 = 0.02			R^2 = 0.04		

Note. Entries are in unstandardized regression coefficients (*b*), robust standard errors (SE), and standardized regression coefficients (β).

[a]Ordinary least-squares regression model.

$^{*}p \leq 0.05$; $^{**}p \leq 0.01$; $^{***}p \leq 0.001$ (two-tailed test)

socializing. In Model 4, low self-control is a significant correlate of going shopping ($\beta = 0.09$, $p \leq 0.05$). Contrary to the relationships observed in the structured routine models, Model 4 shows low self-control has a positive effect on participation in unstructured routines. Model 6 shows that low self-control has the strongest effect on going to the movies, net of the control variables ($\beta = 0.13$, $p \leq 0.01$). These findings indicate that study participants with lower levels of self-control are more likely to engage in unstructured socializing than are their high self-control counterparts. While going to the movies is the routine activity variable most affected by low self-control, Model 4 ("going shopping") has the largest R^2. This may be due to the observed gender gap in who routinely goes shopping. Gender is three times more likely than low self-control to predict going shopping ($\beta = -0.27$, $p \leq 0.001$). Overall, the findings pertaining to unstructured socializing in Table 4 provide partial support for *hypothesis 2*.

Risky lifestyles are regressed onto the low self-control scale and the control variables in Table 5. The amount of explained variance (R^2) for the models is much higher than those found in Table 4. In Table 5, the models explain between 8 percent and 21 percent of the variation in the risky lifestyle variables. Taken together, the models explain participation in risky lifestyles better than involvement in unstructured socializing. *Hypothesis 3* states that low self-control will positively and significantly influence risky lifestyles. As expected, each model shows that low self-control is, indeed, positively and significantly related to each risky lifestyle variable. Additionally, Table 5 presents several notable findings. First, of the four risk-specific lifestyles scales (i.e., drug, party, promiscuous, and aggressive lifestyles), low self-control has the strongest influence on the party lifestyle variable ($\beta = 0.31$, $p \leq 0.001$). The standardized

Table 5. The effect of low self-control on risky behaivors

	Drug lifestyle[a]			Party lifestyle[a]			Promiscuous lifestyle[a]			Aggressive lifestyle[a]			Risky lifestyle[a]		
	Model 1			Model 2			Model 3			Model 4			Model 5		
	b (SE)	β	*t*-ratio	*b* (SE)	β	*t*-ratio	*b* (SE)	β	*t*-ratio	*b* (SE)	β	*t*-ratio	*b* (SE)	β	*t*-ratio
Low self-control	0.07 (0.01)	0.29	6.59***	0.10 (0.01)	0.31	7.53***	0.05 (0.01)	0.22	5.01***	0.06 (0.01)	0.20	4.67***	0.03 (0.00)	0.36	8.56***
Male	0.52 (0.18)	0.13	2.29**	0.27 (0.21)	0.05	1.27	1.04 (0.16)	0.28	6.60***	0.88 (0.20)	0.19	4.41***	0.33 (0.06)	0.23	5.65***
Age	-0.05 (0.04)	-0.05	-1.22	-0.27 (0.05)	-0.21	-5.70***	-0.02 (0.03)	-0.02	-0.62	-0.09 (0.05)	-0.08	-2.02*	-0.04 (0.01)	-0.13	-3.31***
White	-0.08 (0.17)	-0.02	-0.49	0.38 (0.21)	0.07	1.81	0.29 (0.15)	0.08	1.89*	-0.10 (0.19)	-0.02	-0.53	0.06 0.06)	0.04	1.01
Constant	1.57 (0.40)	-	3.97***	8.30 (0.50)	-	16.54***	1.42 (0.44)	-	3.25***	6.54 (0.46)	-	14.33***	-1.14 (0.13)	-	-8.55***
	F-test = 13.36***			*F*-test = 26.85***			*F*-test = 20.14***			*F*-test = 12.59***			*F*-test = 31.65***		
	R^2 = 0.11			R^2 = 0.15			R^2 = 0.15			R^2 = 0.08			R^2 = 0.21		

Note. Entries are in unstandardized regression coefficients (*b),* robust standard errors (SE), and standardized regression coefficients (β).

[a]Ordinary least-squares regression model.

*$p \leq 0.05$; **$p \leq 0.01$; ***$p \leq 0.001$ (two-tailed test)

coefficient indicates that a single standard deviation increase in low self-control leads to a 0.31 standard deviation increase involvement in self-reported partying. Perhaps of greater interest are the results from Model 5, where the combined risk scale serves as the dependent variable. This model shows that low self-control has a relatively strong effect on this operationalization of risky lifestyles ($\beta = 0.36$, $p \leq 0.001$). By and large, those with lower self-control report greater involvement in risky behaviors, a finding consistent with *hypothesis 3*.

Unstructured Socializing/Risky Behavior and Victimization

Table 6 contains a series of negative binomial regressions where victimization is regressed on each routine activity variable (structured and unstructured) and statistical controls. The likelihood ratio test of alpha equals zero is statistically significant in each of the models, which is additional evidence that overdispersion is present. The Wald χ^2 statistics are significant, thus it can be concluded that the models perform better than chance alone. None of the unstructured routine variables reached statistical significance. These findings fail to support *hypothesis 4*.

Once again, a different story emerges when observing the effects of risky lifestyles on victimization. In Table 7, victimization is regressed on the risky lifestyle variables. Among the five risk variables, the drug lifestyle test statistic does not achieve statistical significance. The remaining models show that engaging in risky behaviors significantly increases the risk of victimization. For example, involvement in partying, promiscuity, and aggression all increase the likelihood of victimization. Additionally, when effects of the risky lifestyles are assessed using the combined scale, the *z*-test is

Table 6. The effect of (un)structured routines on victimization

	Victimization[a]																	
	b	SE	*z*-test	*b*	SE	*z*-test	*b*	SE	*z*-test	*b*	SE	*z*-test	*b*	SE	*z*-test	*b*	SE	*z*-test
Attend religious services	0.06	0.04	1.67	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Volunteer	-	-	-	0.09	0.04	1.99	-	-	-	-	-	-	-	-	-	-	-	-
Leave home to study	-	-	-	-	-	-	0.06	0.04	1.36	-	-	-	-	-	-	-	-	-
Go Shopping	-	-	-	-	-	-	-	-	-	0.01	0.05	0.11	-	-	-	-	-	-
Go out to eat	-	-	-	-	-	-	-	-	-	-	-	-	-0.01	0.05	-0.22	-	-	-
Go to movies	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.08	0.05	1.48
Male	0.34	0.08	4.18***	0.36	0.08	4.35***	0.34	0.08	4.24***	0.33	0.08	3.98***	0.33	0.08	4.05***	0.33	0.08	4.14***
Age	-0.03	0.02	-1.19	-0.02	0.02	-1.05	-0.03	0.02	-1.21	-0.03	0.02	-1.21	-0.03	0.02	-1.22	-0.03	0.02	-1.33
White	-0.04	0.08	-0.54	-0.05	0.08	-0.62	-0.05	0.08	-0.58	-0.05	0.08	-0.68	-0.06	0.08	-0.72	-0.05	0.08	-0.59
Constant	0.38	0.11	3.29***	0.29	0.15	1.99*	0.37	0.14	2.66**	0.50	0.17	2.96**	0.56	0.19	2.96**	0.26	0.20	1.34
	Wald $\chi^2 = 19.23^{***}$			Wald $\chi^2 = 20.84^{***}$			Wald $\chi^2 = 19.18^{**}$			Wald $\chi^2 = 16.93^{**}$			Wald $\chi^2 = 16.97^{***}$			Wald $\chi^2 = 18.62^{***}$		
	McFadden's $R^2 = 0.01$			McFadden's $R^2 = 0.01$			McFadden's $R^2 = 0.01$			McFadden's $R^2 = 0.01$			McFadden's $R^2 = 0.01$			McFadden's $R^2 = 0.01$		
Likelihood-ratio test of alpha	69.87^{***}			67.79^{***}			69.93^{***}			72.23^{***}			69.13^{***}			72.39^{***}		

Note. Entries are in unstandardized regression coefficients (*b*) and robust standard errors (SE).

[a]Negative binomial regression model.

$^{*}p \leq 0.05$; $^{**}p \leq 0.01$; $^{***}p \leq 0.001$ (two-tailed test)

Table 7. The effect of risky behaviors on victimization

	Victimization[a]														
	b	SE	*z*-test	*b*	SE	*z*-test	*b*	SE	*z*-test	*b*	SE	*z*-test	*b*	SE	*z*-test
Drug lifestyle	0.01	0.02	0.61	-	-	-	-	-	-	-	-	-	-	-	-
Party lifestyle	-	-	-	0.04	0.02	2.36*	-	-	-	-	-	-	-	-	-
Promiscuous lifestyle	-	-	-	-	-	-	0.06	0.02	2.85**	-	-	-	-	-	-
Aggressive lifestyle	-	-	-	-	-	-	-	-	-	0.10	0.02	5.98***	-	-	-
Risky lifestyle	-	-	-	-	-	-	-	-	-	-	-	-	0.23	0.06	4.15***
Male	0.31	0.08	3.92***	0.30	0.08	3.75***	0.26	0.09	2.98**	0.21	0.08	2.63**	0.23	0.08	2.81**
Age	-0.02	0.02	-1.10	-0.01	0.02	-0.60	-0.02	0.02	-1.09	-0.01	0.02	-0.63	-0.01	0.02	-0.57
White	-0.05	0.08	-0.60	-0.06	0.08	-0.71	-0.08	0.08	-1.02	-0.04	0.08	-0.52	-0.06	0.08	-0.76
Constant	0.46	0.12	3.93***	0.03	0.23	0.15	0.29	0.11	2.62**	-0.40	0.18	-2.20*	0.52	0.08	6.50***
	Wald $\chi^2 = 16.43^{**}$			Wald $\chi^2 = 20.29^{***}$			Wald $\chi^2 = 26.39^{***}$			Wald $\chi^2 = 50.55^{***}$			Wald $\chi^2 = 32.28^{***}$		
	McFadden's $R^2 = 0.01$			McFadden's $R^2 = 0.01$			McFadden's $R^2 = 0.01$			McFadden's $R^2 = 0.03$			McFadden's $R^2 = 0.02$		
Likelihood-ratio test of alpha	72.17***			66.17***			67.16***			44.36***			58.40***		

Note. Entries are in unstandardized regression coefficients (*b*) and robust standard errors (SE).

[a]Negative binomial regression model.

$^{*}p \leq 0.05$; $^{**}p \leq 0.01$; $^{***}p \leq 0.001$ (two-tailed test)

significant at the 0.001 level. In sum, these findings demonstrate that most risky lifestyles increase risk of victimization, which supports *hypothesis 5*.

Does Unstructured Socializing and Risky Behavior Mediate the Effect of Low Self-Control?

Of paramount interest to this study is whether the unstructured routine/risky lifestyle measures mediate relationship between low self-control and victimization. The distribution of the dependent variable, victimization, is overdispersed. A majority of respondents report low victimization. To correct for this overdispersion, negative

Table 8. The effect of (un)structured routines and low self-control on victimization

	Victimization[a]					
	Model 1			Model 2		
	b	SE	*z*-test	*b*	SE	*z*-test
Low self-control	0.01	0.00	2.34*	0.01	0.00	2.49*
Male	0.31	0.08	3.78***	0.35	0.09	4.09***
Age	-0.02	0.02	-1.10	-0.02	0.02	-1.16
White	-0.05	0.08	-0.59	-0.03	0.08	-0.40
Go to movies	-	-	-	-0.03	0.05	-0.63
Go shopping	-	-	-	-0.02	0.06	-0.43
Go out to eat	-	-	-	0.09	0.06	1.53
Attend religious services	-	-	-	0.05	0.04	1.27
Volunter or community service	-	-	-	0.07	0.05	1.52
Leave home to study	-	-	-	0.04	0.04	0.95
Constant	0.11	0.19	0.59	-0.42	0.34	-1.24
	Wald $\chi^2 = 21.46^{***}$			Wald $\chi^2 = 29.56^{***}$		
	McFadden's $R^2 = 0.01$			McFadden's $R^2 = 0.02$		
Likelihood-ratio test of alpha	68.25^{***}			60.09^{***}		

Note. Entries are unstandardized regression coefficients (*b*) and robust standard errors (SE).

[a]Negative binomial regression model.

$^{*}p \leq 0.05$; $^{**}p \leq 0.01$; $^{***}p \leq 0.001$ (two-tailed test)

binomial regression is employed. In Model 1 in Table 8, victimization is regressed onto low self-control and the control variables. This model shows the effect of low self-control on victimization. As expected, low self-control increases the risk of victimization. More

formally, the incident rate ratio (or IRR; not shown in Table 8) indicates that a 1-point increase in the low self-control scale increases a participant's mean victimization score by 1.01%. This finding is consistent with bivariate correlations in Table 3 and provides support for *hypothesis 1*. In Model 2, both unstructured and structured routines are introduced. The effect of low self-control persists. In contrast, none of the routine activity variables reach statistical significance. Simply put, unstructured socializing does not mediate the effect of low self-control on victimization, nor do these variables exert an independent effect on victimization. These results are inconsistent with *hypothesis 6*.

Table 9 includes five models that regress victimization onto the risky lifestyle scales. When comparing these models against Model 1 in Table 8, it can be determined whether any of the risk lifestyle scales mediate the effect of low self-control on victimization. Model 1 in Table 9 shows that the effect of drug lifestyle on victimization is no different than zero. In addition, the effect of low self-control is significant at the 0.05 level. This finding suggests that the drug lifestyle variable does not mediate the effect of low self-control. Model 2 features the party lifestyle variable. In this model, low self-control does not reach statistical significance, however, neither does the party lifestyle variable. Being male is the only variable that is significant. Recall that party lifestyle was linked to victimization at the bivariate level ($r = 0.13$, $p \leq 0.01$; see Table 3). The pattern of findings thus suggests that party lifestyle is not a robust mediator. The next three models in Table 9 provide more favorable results. The model featuring the promiscuous lifestyle variable shows that when low self-control and a promiscuous lifestyle are considered together, promiscuity, not low self-control, is a significant predictor of victimization. As Model 4 shows, the aggressive lifestyle scale behaves

Table 9. The effect of risky behaviors and low self-control on victimization

	Victimization[a]														
	Model 1			Model 2			Model 3			Model 4			Model 5		
	b	SE	*z*-test	*b*	SE	*z*-test	*b*	SE	*z*-test	*b*	SE	*z*-test	*b*	SE	*z*-test
Low self-control	0.01	0.01	2.32*	0.01	0.01	1.66	0.01	0.00	1.69	0.01	0.00	1.14	0.00	0.01	0.76
Male	0.31	0.08	3.82***	0.30	0.08	3.67***	0.25	0.09	2.91**	0.21	0.08	2.59*	0.24	0.08	2.85**
Age	-0.02	0.02	-1.10	-0.02	0.02	-0.69	-0.02	0.02	-1.00	-0.01	0.02	-0.63	-0.01	0.02	-0.60
White	-0.05	0.08	-0.59	-0.05	0.08	-0.65	-0.07	0.08	-0.87	-0.04	0.08	-0.50	-0.06	0.08	-0.74
Drug lifestyle	0.00	0.02	-0.22	-	-	-	-	-	-	-	-	-	-	-	-
Party lifestyle	-	-	-	0.03	0.02	1.71	-	-	-	-	-	-	-	-	-
Promiscuous lifestyle	-	-	-	-	-	-	0.05	0.02	2.41*	-	-	-	-	-	-
Aggressive lifestyle	-	-	-	-	-	-	-	-	-	0.10	0.02	5.70***	-	-	-
Risky lifestyle	-	-	-	-	-	-	-	-	-	-	-	-	0.15	0.04	3.45***
Constant	0.12	0.20	0.61	-0.14	0.26	-0.56	0.03	0.20	0.14	-0.55	0.24	-2.33*	0.38	0.20	1.89
	Wald $\chi^2 = 21.85^{***}$			Wald $\chi^2 = 22.95^{***}$			Wald $\chi^2 = 28.51^{***}$			Wald $\chi^2 = 50.81^{***}$			Wald $\chi^2 = 32.43^{***}$		
	McFadden's $R^2 = 0.01$			McFadden's $R^2 = 0.01$			McFadden's $R^2 = 0.01$			McFadden's $R^2 = 0.03$			McFadden's $R^2 = 0.02$		
Likelihood-ratio test of alpha	68.27^{***}			63.85^{***}			64.37^{***}			43.60^{***}			57.57^{***}		

Note. Entries are in unstandardized regression coefficients (*b*) and robust standard errors (SE).

[a]Negative binomial regression model.

$^{*}p \leq 0.05$; $^{**}p \leq 0.01$; $^{***}p \leq 0.001$ (two-tailed test)

similarly, suggesting that engaging in aggressive behavior increases the risk of victimization, not low self-control. Finally, Model 5 regresses victimization onto the combined risky lifestyle scale. As expected, the effect of low self-control is washed out when the risky lifestyle scale is included in the model specification. Overall, the models in Table 9 provide support for *hypothesis 7*.

Further Analyses

When testing social science theories, it is important to explore the effects of key theoretical variables across different outcomes. The preceding analyses focus on victimization as the dependent variable. Continuing further, similar hypotheses will be tested using criminal offending as the outcome measure. Tittle (1995) argues that theories should, "provide satisfactory explanations for all forms of the phenomena within various domains addressed by the field" (p. 17). The hypotheses tested above find that involvement in several risky lifestyles mediates the relationship between low self-control and victimization. This stage of the study will investigate whether unstructured socializing and risky behaviors measures mediate the effect of low self-control on criminal offending.

Criminal offending is operationalized as a five-item additive scale. Participants were asked how often, in the past year, they engaged in each of the following activities: fraud ("Used someone else's credit card without permission"), drug/alcohol offenses ("Drank alcohol in a place where you are not supposed to" and "Drive a car while under the influence of drugs or alcohol"), and theft ("Bought something you thought was stolen" and "Took something from a store without paying for it"). Responses were binary coded. A majority of the respondents were involved in little to no offending (0 = 28.42

percent, 1 = 36.98 percent, 2 = 20.95 percent, 3 = 10.75 percent, 4 = 2.73 percent, 5 = .18 percent). Offending variety scores are traditionally treated as count variables (Burt, Simons, & Simons, 2006; Osgood, 2000), so a count model is used.

The bivariate correlations for the study variables are presented in Table 10. Several routine activity measures are correlated with offending. Both "attending religious services" (r = -0.11, $p \leq 0.01$) and "volunteering/community service" (r = -0.12, $p \leq 0.01$)

Table 10. Bivariate Correlations

	Criminal Offending
Low self-control	0.32***
Drug lifestyle	0.51***
Party lifestyle	0.44***
Promiscuous lifestyle	0.37***
Aggressive lifestyle	0.28***
Risky lifestyle	0.56***
Go to movies	-0.03
Go shopping	0.09
Go out to eat	0.07
Attend religious services	-0.11**
Volunteer or community service	-0.12**
Leave home to study	-0.01
Male	0.08*
Age	-0.04
White	-0.01

* $p \leq 0.05$; ** $p \leq 0.01$; *** $p \leq 0.001$ (two-tailed test)

are significantly associated with offending. These estimates indicate that participation in religious services and volunteering reduce offending behaviors. Turning attention to risky behaviors, all five risky lifestyle scales are significantly and positively associated with offending at the 0.001 level. Put differently, involvement in risky behaviors increases offending. Finally, and as expected, low self-control is a significant correlate of criminal offending (r = 0.32, $p \leq 0.001$).

Table 11 tests whether routine activity measures mediate the relationship between low self-control and offending. The overdispersion parameters for the models are not

significant, so a traditional Poisson regression model is appropriate. Model 1 shows offending regressed onto low self-control and the control variables. This model serves as a baseline. Low self-control is a significant predictor of offending, thus indicating that those with lower levels of self-control are more likely to engage in offending behaviors.

Table 11. The effect of (un)structured routines and low self-control on criminal offending

	Criminal Offending[a]					
	Model 1			Model 2		
	b	SE	*z*-test	*b*	SE	*z*-test
Low self-control	0.03	0.00	7.98***	0.03	0.00	7.30***
Male	0.13	0.07	1.78	0.14	0.08	1.88
Age	-0.02	0.02	-1.09	-0.03	0.02	-1.40
White	-0.02	0.07	-0.31	-0.02	0.07	-0.32
Go to movies	-	-	-	-0.05	0.05	-1.03
Go shopping	-	-	-	0.11	0.05	2.13*
Go out to eat	-	-	-	0.03	0.05	0.63
Attend religious services	-	-	-	-0.06	0.04	-1.56
Volunteer or community service	-	-	-	-0.06	0.04	-1.55
Leave home to study	-	-	-	-0.00	0.04	-0.02
Constant	-0.97	1.17	-5.67***	-0.85	0.29	-2.96**
	Wald $\chi^2 = 71.25^{***}$			Wald $\chi^2 = 84.76^{***}$		
	McFadden's $R^2 = 0.04$			McFadden's $R^2 = 0.04$		

Note. Entries are unstandardized regression coefficients (*b*) and robust standard errors (SE).

[a]Poisson regression model.

$^{*}p \leq 0.05$; $^{**}p \leq 0.01$; $^{***}p \leq 0.001$ (two-tailed test)

Put differently, the IRR suggests a 1-point increase in the low self-control scale increases a participant's mean offending score by 1.03%, a finding consistent with Table 10. Model 2 introduces the structured and unstructured routines into the equation. The effect of low self-control remains significant. One unstructured routine, "go shopping" achieves significance, but does not mediate the low self-control effect. This finding suggests low self-control and going shopping produce independent effects on criminal offending. Put

Table 12. The effect of risky behaviors and low self-control on criminal offending

	Criminal Offending[a]														
	Model 1			Model 2			Model 3			Model 4			Model 5		
	b	SE	*z*-test	*b*	SE	*z*-test	*b*	SE	*z*-test	*b*	SE	*z*-test	*b*	SE	*z*-test
Low self-control	0.02	0.00	5.20***	0.02	0.00	4.86***	0.03	0.00	6.35***	0.03	0.00	6.79***	0.01	0.00	3.39***
Male	0.02	0.07	0.25	0.09	0.07	1.38	-0.02	0.08	-0.21	0.06	0.07	0.85	-0.09	0.07	-1.29
Age	-0.01	0.02	-0.59	0.02	0.02	0.93	-0.02	0.02	-0.89	-0.01	0.02	-0.73	0.00	0.02	0.20
White	-0.01	0.06	-0.11	-0.07	0.01	-1.01	-0.06	0.07	-0.93	-0.01	0.07	-0.09	-0.05	0.06	-0.80
Drug lifestyle	0.13	0.01	12.64***	-	-	-	-	-	-	-	-	-	-	-	-
Party lifestyle	-	-	-	0.14	0.02	9.29***	-	-	-	-	-	-	-	-	-
Promiscuous lifestyle	-	-	-	-	-	-	0.11	0.02	7.46***	-	-	-	-	-	-
Aggressive lifestyle	-	-	-	-	-	-	-	-	-	0.08	0.02	4.95***	-	-	-
Risky lifestyle	-	-	-	-	-	-	-	-	-	-	-	-	0.38	0.03	12.28***
Constant	-1.11	0.15	-7.38***	-2.24	0.21	-10.66***	-1.15	0.16	-7.25***	-1.44	0.19	-7.59***	-0.30	0.16	-1.90
	Wald $\chi^2 = 317.24^{***}$			Wald $\chi^2 = 175.41^{***}$			Wald $\chi^2 = 167.22^{***}$			Wald $\chi^2 = 112.88^{***}$			Wald $\chi^2 = 254.40^{***}$		
	McFadden's $R^2 = 0.08$			McFadden's $R^2 = 0.08$			McFadden's $R^2 = 0.06$			McFadden's $R^2 = 0.05$			McFadden's $R^2 = 0.10$		

Note. Entries are in unstandardized regression coefficients (*b*) and robust standard errors (SE).

[a]Poisson regression model.

$^{*}p \leq 0.05$; $^{**}p \leq 0.01$; $^{***}p \leq 0.001$ (two-tailed test)

differently, those with low self-control are more likely to engage in offending behaviors as well as those who are frequent shoppers. Low self-control, however, acts as an independent predictor of offending rather than through going shopping.

Turning attention to the risky lifestyle scales, a different picture emerges. Table 12 contains five models that regress criminal offending onto the risky lifestyle scales. Low self-control remains significant in each model. Additionally, each risk scale also achieves statistical significance. Taken together, these findings suggest that low self-control and risky lifestyles independently influence the likelihood of offending.

Discussion

For decades, routine activity theory and lifestyle theory have been used to guide victimization research. However, researchers have often conflated the two theories, failing to appreciate the unique characteristics of each theoretical framework. This study tested the hypotheses derived from each theory independently. After estimating several multivariate regression models, two notable findings emerged: (1) The likelihood of victimization increases with higher involvement in risky lifestyles, and (2) involvement in risky lifestyles mediates the effect of low self-control on victimization. In short, this study emphasizes the importance of risky lifestyles in the study of victimization.

These findings highlight important theoretical implications for the relationship between low self-control and victimization. First, this study shows that low self-control has an indirect effect on victimization. Put differently, low self-control works through risky behaviors, which in turn increase the likelihood of victimization. These findings begin to show how certain behaviors put potential victims in contact with motivated offenders. Separating these theories and evaluating them independently will be important

in future studies to allow for a more complete understanding of victimization. Specifically, if this study failed to account for risky behaviors and unstructured socializing separately, false conclusions may have been made that do not accurately identify the causes of victimization. For example, several of the risky lifestyle measures could have been considered unstructured socializing, making the conclusion that unstructured socializing is salient to explaining victimization. Since unstructured socializing is considered independent of risky behaviors, a different picture emerges.

A second theoretical implication relates to the criminal offending models. Rather than mediating the relationship between low self-control and offending, risky lifestyles exert independent effects. Low self-control has both direct and indirect influences on criminal offending. Put differently, offenders who possess low self-control engage in risky behaviors, thus increasing criminal opportunities. However, low self-control boosts the frequency of offending. This direct relationship of low self-control on offending separates victims from offenders. The current study finds support for the inclusion of low self-control but also identifies the important role risky behaviors play in the pathway to offending.

The measures used in this study reflect risky behaviors that increase contact with motivated offenders. Future research should continue to expand on risky behaviors that may not have been addressed by the current study or revise this study's measures that did not accurately capture risk. For example, the items used to create the drug lifestyle scale may not necessarily reflect elevated risk. The items "used marijuana or other drugs", "bought marijuana or other drugs", and "sold marijuana or other drugs" could potentially represent a low-risk lifestyle. Put differently, the participant may have responded

"frequently" to using marijuana, however they may have been referring to using marijuana in their own home, which does not pose much victimization risk. Revised measures, such as "using marijuana or other drugs with strangers", "buying marijuana or other drugs from a stranger", or "use marijuana or other drugs in a public place" may better capture risk. Researchers should continue to focus on how engaging in risky behaviors can contribute to the understanding of victimization risk.

In sum, the current study emphasizes the importance risky behaviors play in the understanding of victimization. While low self-control is also important to consider, it does not tell the whole story. Rather, risky lifestyles emerge as the causal mechanism driving the relationship between low self-control and victimization. This study highlights the importance of expanding the theoretical context beyond combining routine activity and risky lifestyle measures and evaluating their hypothesized relationships independently. Specifically, attention to risky lifestyles is important in the context of victimization. Not accounting for risky behaviors in the study of victimization fails to capture key intervening variables. Further attention to how risky lifestyles influence the risk of victimization is warranted in future research.

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APPENDIX A

SUMMARY STATISTICS FOR RISKY SCALES AND ITEMS

Appendix A. Summary statistics for risky scales and items.

Scales and items	Mean	SD	N
Drug lifestyle[a]			
1. Used marijuana or some other drug	1.65	0.96	550
2. Bought marijuana or some other drug	1.41	0.85	550
3. Sold marijuana or some other drug	1.14	0.52	550
Cronbach's alpha = 0.82			
Mean inter-item r = 0.63			
Mean item-total r = 0.72			
Party lifestyle[a]			
4. Get together with friends, informally	3.36	0.79	549
5. Made a lot of noise at night	2.26	0.86	549
6. Go to parties	2.64	1.01	549
7. Stay out past midnight	3.12	0.88	549
Cronbach's alpha = 0.73			
Mean inter-item r = 0.40			
Mean item-total r = 0.52			
Promiscuous lifestyle[a]			
8. Have sex with someone you don't know very well	1.55	0.84	554
9. Have sex with someone who you know is having sex with other people	1.41	0.74	554
10. Invite strangers to your home late at night after a party	1.28	0.63	554
Cronbach's alpha = 0.77			
Mean inter-item r = 0.52			
Mean item-total r = 0.62			
Aggressive lifestyle[a]			
11. Got into a fight with another person with the idea of physically harming them	1.34	0.65	548
12. Raise your voice to defend yourself in an argument	2.86	0.91	548
13. Confront people who make you mad	2.53	0.92	548
14. Get even with people who cross you	1.89	0.87	548
Cronbach's alpha = 0.64			
Mean inter-item r = 0.31			
Mean item-total r = 0.42			

[a]Response set ranging from 1 = never to 4 = frequently

APPENDIX B

SCREE PLOT FOR COMPONENTS REPORTED IN TABLE 1

Appendix B. Scree plot for components reported in Table 1