THE IMPACT OF LOW SELF-CONTROL AND RISKY LIFESTYLES ON JUVENILE VICTIMIZATION

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DEDICATION

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ABSTRACT

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Since its inception, the general theory of crime has been applied in many ways and in numerous contexts to explore criminal offending. It has also been utilized to explain why certain people are more likely to experience criminal victimization. Research, however, has found that self-control's effect on victimization is modest overall, indicating that other variables play a role in this relationship. Relatively few studies have explored how aspects of a risky lifestyle influence the self-control/victimization relationship, and fewer still have explored the mediating effect of risky lifestyles in this context. This study tests the mediating effects of risky lifestyles on the selfcontrol/victimization relationship in a sample of over 2,000 American juveniles. Data from the International Self-Report Delinquency Study (ISRD-2) are utilized, which asked respondents about lifestyle characteristics, involvement in delinquency, and their victimization experiences. Results indicate that self-control does indeed have an effect on victimization chance among this sample, and that risky lifestyles partially mediate the effects of low self-control on victimization. These findings are consistent with the extant literature in this area, and uniquely contributes through its examination of three types of victimization: violent, theft, and bullying.

KEY WORDS: Victimization, Juvenile victimization, Low self-control, Risky lifestyles, Mediating effect, General theory of crime

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CHAPTER I

INTRODUCTION

Understanding the characteristics and processes involved with both offending and victimization has been a central tenet of criminological research since it branched off from sociology. The criminal justice system has long been concerned with offenders, but victims have also garnered attention. For every crime, there is at least one victim, and the impact that victimization can have on a person can be profound and substantial. Crime not only affects adults, but unfortunately also can involve juveniles, who are the focus of this paper. Discovering why criminal victimization occurs could uncover patterns and characteristics that are common among those individuals. It is imperative to avoid victim blaming in this area of research, and to look simply at patterns among victims that are related to criminal victimization, so that prevention measures may be implemented.

Criminological theories too have been mostly offender-oriented; a few, however, have been applied to victims in order to take a unique look at victimization. The self-control theory, also referred to as the "general theory of crime," penned by Michael Gottfredson and Travis Hirschi in 1990, was designed as a theory that could explain all criminal offending. It has generally received empirical support (e.g. Pratt & Cullen, 2000; Stewart, Elifson, & Sterk, 2004). Christopher Schreck (1999) took the ideas of the general theory of crime and used them to explore why certain people experience criminal victimization. His study has also received substantial attention from criminologists in the years after (e.g. Childs, Cochran, & Gibson, 2009; Pratt, Turanovic, Fox, & Wright, 2014).

Several years before self-control theory was published, Lawrence Cohen and Marcus Felson (1979) developed their own explanation for crime: routine activity theory. It has also received considerable academic attention and widespread support for its ability to explain crime patterns and trends. While the focus will not be on routine activity theory, it's description of how cyclical lifestyles (through their routine activities) can perpetuate victimization experiences is relevant to this study. This paper will instead examine risky lifestyles, an aspect of routine activity theory and one of its companions, lifestyle exposure theory. People all have daily routines, from the time they wake up until they fall asleep, which involve activities including commuting, work, school, and recreation. Those who partake in activities that have greater inherent risk or opportunity for crime to occur are living a riskier lifestyle (Cohen & Felson, 1979; Hindelang, Gottfredson, & Garofalo, 1978).

To explore the relationship between self-control, risky lifestyles, and victimization, data will be utilized from the International Self-Report Delinquency Survey (ISRD-2). This survey, which has three iterations, contains numerous items asking the respondents about their lifestyle, delinquency, and victimization experiences. This study will focus solely on the United States portion of sample, whose dataset was collected from diverse regions in the country. These survey items will allow for an examination of the linkage between self-control, risky lifestyles, and victimization to determine their ability to affect juvenile criminal victimization.

Research Aims

This study will explore multiple research goals. First, the levels of three forms of victimization will be gauged by using a school-based sample collected from multiple

regions of the United States. Second, the current study will investigate if there is further evidence that low self-control affects victimization odds for violent, theft, and bullying victimization. The unique nature of the dataset from the ISRD-2 allows for this comparison of different victimization forms. As pointed out by Reid and Sullivan (2009), people can experience multiple types of victimization, so it is quite useful to have items asking about different types of victimization, allowing for a more comprehensive examination of criminal victimization.

Third, this study will explore if risky lifestyles measures are indeed related to victimization. Establishing this connection further supports their inclusion as a mediating variable in the overall analysis. Lastly, this study will look at how risky lifestyles act as a mediating variable in the relationship between low self-control and victimization. Previous literature has found that the relationship between low self-control and victimization is not incredibly robust, pointing to the potential usefulness of including risky lifestyles measures in this association.

Contributions

Juveniles are at a higher victimization risk than any other age group, and they have been shown to have more contact with delinquent peers than anyone else (Schreck, Wright, & Miller, 2002). They have also been found to commit the most crime. These exemplify why juveniles deserve attention from criminologists. Just like adults, they also experience crime, both as a victim and as an offender, and it affects them in similar ways to adults. This study, which utilizes a large sample of adolescents, can provide insight into how self-control and involvement in risky lifestyles impact their victimization experiences, and may uncover trends that could hold true for other juvenile samples.

This study will look at how risky lifestyles measures act as a mediating variable on the relationship between low self-control and juvenile victimization. Few studies have examined this connection, so the contributions this study will make could be of great significance. Previous research has found that low self-control affects victimization (i.e. Schreck, 1999; Pratt, Turanovic, Fox, & Wright, 2014), and that participating in risky lifestyles leads to increased chances of victimization (Baron, Forde, & Kay, 2007; Cohen & Felson, 1979; Forde & Kennedy, 1997; Wattanaporn, 2014; Wiesner & Rab, 2015). Based upon the extant literature, this study will look to add to this small area of criminological focus by shedding light on how risky lifestyles factors interact with low self-control to predict several types of criminal victimization among juveniles. Previous studies that tested the mediating effect of risky lifestyles on the self-control and victimization relationship have found that risky lifestyles aspects partially mediate the effect of self-control on victimization (e.g. Ren, He, Zhao, & Zhang, 2016; Turanovic & Pratt, 2014). The inconsistency concerning the strength of the mediating effect of risky lifestyles warrants further research, and this study will be able to provide a more comprehensive examination of this mediating effect. This study utilizes multiple measures that are considered aspects of a risky lifestyle, which have been used in previous research that tested the mediating effect of risky lifestyles. This allows for a stronger representation of risky lifestyles. Additionally, the inclusion of multiple measures of victimization allows for the mediating effect to be tested regarding three distinct forms of victimization. These characteristics make this study's contributions rather unique.

Three measures for assessing victimization experiences of the respondents will be utilized: violent (a combination of assault and robbery items), theft, and bullying victimization. The measures of victimization in this study are more inclusive and multidimensional, as some people experience multiple forms of victimization. The school environment can include a large amount of people into a small space for numerous hours each day, creating more opportunities for crime. The data utilized in this paper come from a national sample in the United States from multiple areas scattered across the country, allowing more broad conclusions to be formed about juvenile victimization.

If certain aspects of self-control are found to be influential on victimization odds, implications for improved parenting practices or other efforts to cultivate higher levels of self-control among children and juveniles. The same can be said if risky lifestyles measures are found to have a statistically significant impact on victimization.

Preventative measures could be designed to educate juveniles on how they can lessen the risk in their lives.

CHAPTER II

THEORETICAL FRAMEWORK

A General Theory of Crime (Self-Control Theory)

Michael Gottfredson and Travis Hirschi, two of the most well-known names in the field of criminology, published *A General Theory of Crime* in 1990, outlining the tenets for their self-control theory. It has received substantial attention from the field of criminology, in the form of both support and critique. There are several significant aspects of this theory, all of which provide an explanation for what causes crime.

Gottfredson and Hirschi (1990) focus the attention of their theory on socialization with parents and others in early childhood. The socialization that each individual experiences can, in unfortunate circumstances, lead to a greater propensity to commit criminal or deviant acts. This drive to behave criminally encompasses what self-control theory terms 'low self-control.' Parents, therefore, play a substantial role in helping children develop sufficient self-control during early childhood, as well as helping monitor, control, and cultivate prosocial behavior.

Low self-control, according to Gottfredson and Hirschi, fully develops by age eight due to parents not monitoring their child's behavior or being a more integral part of their lives, not distinguishing deviant behavior from non-deviant, and not punishing those deviant acts (1990, p. 97). Gottfredson and Hirschi also state that self-control, whether high or low, remains stable over an individual's entire life course (1990, pp. 107-8). The entire characteristic of low self-control, as described by the theory, can be quantified through six different characteristics.

Those with low self-control are usually present-oriented and impulsive. They act on whims and desires, and generally show little concern for the future consequences of their actions. As Gottfredson and Hirschi state, people with low self-control are usually unable to "defer gratification" (1990, p. 89). While this can be expressed in relatively harmless forms such as over-eating or participating in risky activities such as basejumping, it can be found in criminal and deviant behaviors, such as robbery. Low self-control also involves a preference for easily obtained rewards and gratification for their actions. They will prefer simpler tasks over more difficult ones (1990, p. 89). This can be related to the first characteristic of low self-control, since more complex tasks may take more dedicated time, which people with low self-control may not want to devote themselves to.

The third characteristic of low self-control is portrayed in the cliché 'adventurer' or free-spirit, with individuals seeking riskier rather than more guarded behaviors and actions. According to Gottfredson and Hirschi, criminal acts generally are "exciting, risky, or thrilling" (1990, p. 89). These feelings can be obtained in other, more socially acceptable ways, but some people turn to committing crime to get these experiences. Another aspect of self-control involves individuals preferring physical over thinking-based activities (1990, p. 89). This can be exhibited in a person's difficulty in getting homework done then relaxing, but relative ease in opting to play with friends over doing homework.

The final two aspects of low self-control both involve interpersonal relations.

Those with low self-control are generally narcissistic and self-centered, and are mostly apathetic towards others (1990, p. 89). Building off this disregard for the feelings of

others, persons with low self-control do not possess effective anger management skills, and respond to conflict through physical means rather than through verbal resolutions (1990, pp. 89-90). The connections between these two aspects of self-control can be related to interpersonal crimes with direct human contact, such as assault.

All six of these components are characteristics that can be found in those with low self-control. According to Gottfredson and Hirschi, it plays a significant role in how an individual performs in different major aspects of life, including school, working, and long-term relationships with others (1990, pp. 154-8). Individuals can have any number of these traits; people possessing more of them or displaying them to a greater degree have low self-control. Having low self-control can make it difficult for an individual to complete their education, since they are generally not future-oriented, something success in school requires. Those with low self-control may associate with more delinquent peers, who generally are thrill-seeking, risk-taking individuals who may also be criminals. This same logic can be applied to working as well, since maintaining a job requires future-oriented thinking and responsibility. Jobs typically involve multiple, sustained interactions with other people, and those with low self-control generally do not have the patience to deal with interpersonal conflicts. This can impact a person's ability to keep a job.

Schreck (1999)

Christopher Schreck (1999) utilized self-control theory to explain victimization patterns, which outlines the theory that this study relies on. Schreck took the same six fundamental characteristics of low self-control and described how they lead to a higher chance of being victimized. Those who have low self-control are more likely to be unable

to defer gratification and are impulsive, so they may look to have fun without making sure their possessions are safe from others (Schreck, 1999). Individuals with low self-control are also not as diligent nor do they take the same precautions those with high self-control do, so they may not consistently protect themselves from being victimized. As noted by Gottfredson and Hirschi (1990), those with low self-control prefer physical tasks over cognitive ones, which may lead to being assaulted by another individual, since they do not approach a confrontation verbally (Schreck, 1999). A lack of empathy can be found in those with low self-control, and, according to Schreck, they are not adept in evaluating others' intentions or emotions.

Lastly, those with low self-control do not sufficiently control their frustrations in a non-physical manner, and may turn to hostile retaliations to others' actions or words, which can increase their chances of victimization (Schreck, 1999). Just like Gottfredson and Hirschi (1990), Schreck (1999) mentions that while not all six of these characteristics are required to be present in a person for them to have low self-control, they oftentimes present themselves together, and those who possess more of them have a greater chance of being victimized.

Risky Lifestyles

Before Schreck (1999) uncovered a relationship between self-control and victimization, a combination of routine activity and lifestyles theories provided the dominant theoretical framework for understanding victimization. Cohen and Felson (1979) developed one of the most well-known opportunity theories of crime to explain the processes that lead up to and ultimately cause crime to occur. They stated that day-to-day routine activities act upon general criminal opportunity, which ultimately influences

crime rate trends. The authors predicted that juveniles who are involved in more peer activities over familial ones would experience more victimization. Cohen and Felson (1979) were able to affirm their hypotheses. The authors found that the household activity ratio had a positive and statistically significant effect on crime rate changes over the nearly thirty-year period they studied. Hindelang, Gottfredson, and Garofalo (1978), in their development of lifestyle theory, use a more macro-level approach than self-control theory, with a focus on the characteristics of the situations persons are in. Exposure to higher risk people (i.e. deviants), places (i.e. where many people congregate), and times (i.e. nighttime), puts an individual at a higher risk of criminal victimization (Hindelang et al., 1978). Subsequent research has found support for this idea, that exposure to risky aspects of life increases the risk for victimization (Franklin, 2011; Ren, He, Zhao, & Zhang, 2016; Stewart, Elifson, & Sterk, 2004). Ren and colleagues (2016) point out that more recent literature proposes that risky lifestyles measures can mediate the effect of self-control on criminal victimization (see Schreck et al., 2002; Turanovic, Reisig, & Pratt, 2015). As an extension of routine activity theory, this study will look specifically at factors that would be involved in risky lifestyles. While it would be impossible to measure all of the actions that would be considered "risky," the ISRD-2 survey contains questions about numerous activities that have been found to increase victimization.

CHAPTER III

LITERATURE REVIEW

Effects of Victimization

Crime affects millions of people around the world each year, and crime clearly has a negative impact on those who are victimized. Criminal victimization can mar a person's basic assumptions and beliefs about the world and themselves, in the context of their safety (Reid & Sullivan, 2009; Winkel & Denkers, 1995). Both violent and non-violent victimization can be traumatizing to the individual who experiences it, and is incredibly stressful (Green & Pomeroy, 2007). Numerous studies in the victimology literature have highlighted the various negative impacts crime can have on victims, including myriad psychological and emotional issues as well as physical problems (e.g. Green, Streeter, & Pomeroy, 2005; Reid & Sullivan, 2009; Winkel & Denkers, 1995). Victimization also impacts those who are in the victim's social network (Winkel & Denkers, 1995).

Green and Pomeroy (2007) examined whether there are any inherent differences between victims of violent crimes and nonviolent crimes, as classified by the FBI Uniform Crime Report definitions. Violent crimes in their study included crimes such as assault, sexual assault, aggravated robbery, and rape (Green & Pomeroy, 2007). Nonviolent crimes included theft, burglary, and domestic disturbances. Comparing 175 victims of violent or non-violent crimes, the authors found that there were significant overall differences in effects of victimization between violent and non-violent crimes. Those who had experienced violent crimes generally received more social support, and tended to report more traumatic stress than those who were non-violent crime victims.

Violent crime victims reported higher mean levels of depression, stress, anxiety, and anger than victims of non-violent crime (Green & Pomeroy, 2007).

Chang, Chen, & Brownson (2003) examined how repeated victimization leads to subsequent delinquency, and who experiences repeat victimization. The authors utilized data from Monitoring the Future, and found that males, those who were black, drug users, and those who participated in risky behaviors were more likely to experience more victimization. Delinquent individuals experienced both repeat victimization and delinquent recidivism more than non-delinquent adolescents in the sample (Chang et al., 2003).

Ousey, Wilcox, and Brummel (2008) also looked at how past victimization impacts future victimization risk. They posit that individuals may follow one of two paths for those who have experienced victimization. The first of which is state dependence, where a crime victim will make changes to their social and individual circumstances to alter their chances of future victimization. The other is the "once-bitten, twice shy" hypothesis, which states that victimization changes how people behave to reduce any subsequent victimization. Ousey and colleagues (2008) found that past victimization increases the chances of being victimized in the future, but this relationship is less strong than previous literature indicated.

Schreck, Ousey, Fisher, and Wilcox (2012) investigated whether there are differences in individual victimization patterns, as well as if those observed patterns are explained better through different theories of crime. One example brought up by the authors was that in certain contexts of subcultures of violence, a person's involvement in criminal behavior could subsequently lead to their own victimization. Schreck and

colleagues (2012), utilizing four waves of panel data in Kentucky, found that those who experienced violent victimization can also experience forms of non-violent victimization, but are more likely to be victims of further violent crimes. Victimization patterns remained stable over time in their sample. Schreck et al. (2012) also found that males who are more impulsive, approve of violence, and are delinquent (all indicators of low self-control) experience higher levels of victimization, specifically violent victimization. Interestingly, Schreck and colleagues (2012) found that both one measure of low self-control—impulsivity—as well as subcultural values, do not play a large role in differentiation between victimization types.

Low Self-Control and Victimization

As discussed in detail earlier, Schreck (1999) provided the foundation for research examining self-control and its effect on victimization. Using data from the 1996 Tucson Youth Project, which surveyed undergraduate students, Schreck (1999) found that females tended to have higher levels of self-control than their male counterparts did, and both male and female victims generally had lower self-control than their non-victimized counterparts did. Lower levels of self-control were also found to increase victimization among three crime types: property, personal, and violent (Schreck, 1999).

Ten years later, Nofziger (2009) tested this same relationship, but developed a measure of self-control that included cognitive aspects and behavioral measures, as well as providing measures of opportunities to examine victimization. Using survey responses from juveniles in Arkansas schools, Nofziger (2009) came to similar conclusions that Schreck (1999) did. Higher levels of self-control corresponded with lower rates of victimization.

Schreck, Stewart, and Fisher (2006) provided a unique look at the relationship between self-control and victimization. They examined low self-control's effect at any point in a person's life and if it predicted future victimization, as well as if victims take measures to prevent future victimization. Using data from GREAT (Gang Resistance Education and Training), Schreck and colleagues (2006) found that low self-control was positively associated with robbery and assault victimization, as well as delinquency and association with delinquent peers, which has been shown to increase victimization risk (Schreck, Wright, & Miller, 2002). Schreck et al. (2006) also found that adolescents with low self-control continued to engage in activities that increase their victimization risk, while individuals with high self-control changed their lifestyle patterns to prevent future victimization.

Averdijk and Loeber (2012) provided a unique look at how self-control influenced victimization by looking at how prior victimization influenced future victimization. Building upon the work of Schreck et al. (2006), Averdijk and Loeber (2012) looked at the influence a victim's self-control has on the link between prior and future victimization. The authors argue that prior victimization would lead to the implementation of precautionary measures to prevent future victimization; prior research, however, does not support their claim (Averdijk & Loeber, 2012). Using data from the Pittsburgh Youth Study, the study found that prior victimization did not increase a person's risk to be victimized in the future. The addition of high self-control in this comparison, however, showed that there was a decreased risk for future theft victimization, but not in violent victimization (Averdijk & Loeber, 2012).

The study provided some discussion to explain the latter finding. If those who are close to the victim instigate violent victimization and they take precautionary measures, the offender may retaliate to a greater degree. Averdijk and Loeber (2012) claim that those with low self-control may even be at less risk for future victimization in these circumstances due to their increased probability of retaliating, which may show the offender that the victim is not someone to attempt to victimize further. Averdijk and Loeber (2012) did not conduct the only study looking at violent victimization. Various other studies concerning self-control's influence on violent victimization may provide more insight into this victimization subset.

Higgins, Jennings, Tewksbury, and Gibson (2009) sought to empirically test self-control's stability over time and its relation to violent victimization risk, something that had not received much empirical support since self-control theory had been conceived.

Using data from GREAT, like Schreck et al. (2006), Higgins and colleagues (2009) found that self-control generally remained stable over time. In line with Schreck, Wright, & Miller (2002), lower levels of self-control were associated with more instances and risk for violent victimization among juveniles. This study provided evidence that the link between low self-control and violent victimization remains over time in individuals, something that had not yet been shown in the literature (Higgins et al., 2009).

Gibson (2012) took victimization and self-control research further by utilizing social disorganization theory to see if various neighborhood characteristics and individual factors influence adolescents' violent victimization risk. While this current study is not testing social disorganization theory, a measure of neighborhood attachment is included amongst the control variables. Neighborhoods play an integral role in a child's

development in similar ways to schools and families, highlighting the importance of this study to evaluating self-control theory. Children and adolescents within a neighborhood can associate with one another, and if those children are delinquent, they can put themselves in greater risk for victimization. Neighborhoods can also serve as another guardian to help a child grow up with some form of guidance, even if that is negative. Gibson (2012), through his examination of longitudinal data from Chicago neighborhoods, found that victims of violent offenses were more likely to have lower self-control compared to non-victims. Adolescents in this study who associated with peers that are more delinquent were more likely to report violent victimization, especially if their neighborhoods were disadvantaged (Gibson, 2012).

Various studies within this area of research have looked at other specific populations as well as a form of victimization that is unique to adolescents: bullying. Holt, Turner, and Exum (2014) looked at how various individual and neighborhood factors influenced juveniles' risk for different types of bullying victimization. In their examination of data from adolescents in North Carolina, Holt and colleagues (2014) found that those with lower self-control tended to experience bullying victimization more than their peers with higher self-control did. This same trend was found when the authors looked at grades in school; students with lower grades and self-control were bullied more than adolescents with both higher grades and self-control (Holt et al., 2014).

Experiencing bullying may lead to a host of negative life experiences and outcomes, including lower grades. These adolescents may be bullied further if their peers learn of their poor school performance. This may lead to a 'snowball effect' of sorts, with the juvenile doing worse and worse in school as they are victimized more. Weak educational

ties have been shown to be associated with increased delinquency and victimization (Schreck et al., 2006), highlighting the significance of these findings. The ISRD-2 data that this study will examine included a bullying victimization item in the section of questions.

Miller (2012) looked at a more specific population of juveniles who have not received substantial attention in juvenile victimization literature: Hispanic youth. Using data from Chicago neighborhoods like Gibson (2012), Miller (2012) found that many of the risk factors that have been identified to predict delinquency and victimization among non-Hispanic youth applied to Hispanic adolescents in this sample. The study also found that association with delinquent peers played a strong role in increasing victimization risk. The most striking finding from this study was that the effects of self-control in the sample were not significant, which does not align with previous literature that looked at self-control in Hispanics (Miller, 2012). Methodological limitations in Miller's study make her data not very generalizable however, but it does provide unique conclusions.

Research concerning low self-control's influence on victimization has grown since Schreck first made the connection in his seminal 1999 work. Pratt, Turanovic, Fox, and Wright (2014) provided a meta-analysis of subsequent studies in this area, which ultimately examined 66 studies with 42 unique data sets, and 311 effect size estimates. Pratt and his colleagues (2014) concluded that self-control consistently and significantly predicted victimization, though its effect was modest overall. This effect was also found to be general across varying methodological conditions, and was slightly stronger in foreign samples (Pratt et al., 2014). This meta-analysis argues that the modest effect low self-control has on victimization is due to it acting indirectly upon victimization. Pratt et

al. (2014) argue that having low self-control acts as a catalyst for different behavioral and social processes that may lead to victimization. Pratt and colleagues (2014) pointed to a strength of self-control theory in that it accounts for what they term the 'generality of deviance,' meaning that those who have lower self-control tend to have worse things happen to them, including victimization.

Routine Activity Theory/Risky Lifestyles and Victimization

Cohen and Felson (1979) mention that their routine activity theory can be used to not only understand crime trends in different periods of time, but also within certain neighborhoods, and in subgroups of the population. This theory could prove useful in understanding the reasons behind why crime occurs for not only adults but also adolescents, who have their own routine activities.

Lauritsen, Sampson, and Laub (1991), in their seminal piece, contend that to understand juvenile victimization better, research needs to look at the patterns of adolescent delinquency and the linkages between the two. The authors utilized routine activity theory in their examination of several juvenile victimization risk factors, including delinquency, proximity to crime and social disorder. Using data from the National Youth Survey, Lauritsen and colleagues (1991) found that delinquent juveniles experienced more victimization than their non-delinquent counterparts did. Lifestyles that were more delinquent had the most substantial and significant effect on violent and robbery victimization.

Building upon the opportunity perspective of victimization, Augustine, Wilcox, Ousey, and Clayton (2002) examined its generalizability in a school context. Using a sample of over 3,000 middle and high school students in Kentucky, the authors looked at

how various forms of opportunity influence violent and property victimization. Augustine and colleagues (2002) found that for violent victimization, three variables were significantly associated: being more impulsive, participating in serious delinquency, and involvement in minor forms of aggressive activity. These same factors also were significantly associated with property crime victimization. Those results point to the usefulness of the opportunity model, which includes routine activity theory, for school-based criminal victimization (Augustine et al., 2002).

Also within this adolescent victimization context, Taylor, Freng, Esbensen, and Peterson (2008) examined how gang membership among youth affects violent victimization, with routine activities and lifestyles variables acting as mediators. The authors measured self-reported delinquency, parental attachment, and school commitment to gauge lifestyle characteristics. Taylor and colleagues (2008) found that these lifestyles measures mediated the relationship between gang membership and violent victimization. Henson, Wilcox, Reyns, and Cullen (2010) found similar evidence for the effectiveness of lifestyles variables in predicting adolescent violent victimization. In their study of roughly 500 high school students, the authors found that more delinquent lifestyles were strongly related to minor violent victimization. Protective factors, including maternal attachment, lowered victimization chances, in line with capable guardianship aspect of routine activity theory (Henson et al. 2010).

Lemieux and Felson (2012) looked at the level of risk exposure of criminal violent victimization in what they deem are 'major' routine activities. In their study, the authors found that activities within the home carried the lowest risk of violent victimization, upholding one of Cohen and Felson's (1979) arguments concerning their

theory: that being at home is safer than not. Activities that are what Lemieux and Felson (2012) deem 'in-transit,' which include travelling to and from locations, are inherently more dangerous since there is less guardianship. Travelling to and leaving from school were the most dangerous activities in Lemieux and Felon's (2012) sample. The authors note that understanding a person's exposure to risk will help better understand the contexts in which violent victimization occurs.

Risky lifestyles, low self-control, and victimization

Pratt and colleagues (2014), in their meta-analysis of research testing the effects of self-control on victimization noted that self-control has overall been found to have a modest ability to predict victimization. They argued that self-control acts indirectly upon victimization, and that other factors, for example, risky lifestyles, may play a role as well. The inclusion of risky lifestyles measures in the low self-control/victimization research gained traction with Forde and Kennedy (1997). They found support for Gottfredson and Hirschi (1990), as well as for the usefulness of risky lifestyles and imprudent behaviors measures in strengthening the association between low self-control and risky lifestyles. Subsequent studies included risky lifestyles measures as additional independent or control variables, with few looking at the mediating effect such variables have on the self-control/victimization relationship.

Risky Lifestyles as an Independent/Control Variable

Forde and Kennedy (1997) conducted one of the first studies to combine the general theory of crime and risky lifestyles. They focused on what Gottfredson and Hirschi (1990) termed 'imprudent behaviors,' such as smoking, drinking, and incidents with others. They also included lifestyle measures, claiming that a person's lifestyle

likely affects how they approach conflict situations. Forde and Kennedy (1997) utilized questions from the 1989 Canadian Urban Victimization Survey, which asked survey-takers about their participation in multiple nighttime activities. These activities included how many times per month they went to bars, movie theaters, restaurants, work, visited friends, and went out for walks. All of these activities place individuals around others and in situations where crimes may occur. Using data from two Canadian provinces, Forde and Kennedy (1997) found that most of the aspects of self-control they included had a significant impact on the frequency of participating in imprudent behaviors, which in turn affected offending and victimization experiences. Respondents who had more of a temper, who are impulsive, and those who are less task-oriented reported less involvement in routine activities and more in risky lifestyles. Those risky lifestyles were linked to criminal victimization, leading the authors to call for increased empirical attention to lifestyle characteristics (Forde & Kennedy, 1997).

Stewart, Elifson, and Sterk (2004) also highlighted the importance of lifestyles by pointing out how day-to-day activities place people in varying degrees of victimization risk. The authors note that a flaw of routine activity research is that studies tended to use proxy measures for lifestyles, such as marital or employment status, rather than more direct measures. While these alternatives do account for some aspects of a person's lifestyle, they encompass only a marginal portion. The authors measured risky lifestyles by asking respondents about their social behaviors within the past year, including how often they were involved in public drug use, and dealing and associating with delinquent friends, similar to Forde and Kennedy's (1997) use of imprudent behaviors. Their sample came from a unique source: drug-using female offenders, which allowed for a test of how

self-control and risky lifestyles measures explain victimization among a special population. Stewart and colleagues (2004) found that low self-control was significantly associated with violent victimization, in a positive manner, showing support for the integration of self-control theory into explanations for victimization. Behaviors that are aspects of a risky lifestyle were also significantly associated with violent victimization, increasing victimization odds (Stewart et al., 2004). These measures for risky lifestyles established a more comprehensive way to operationalize what encompasses a 'risky lifestyle' that subsequent studies would utilize.

Daigle, Beaver, and Hartman (2008) took a similar combination of risky lifestyles to that of Forde and Kennedy (1997) and Stewart et al. (2004), as well as low self-control, and applied them to victimization in a juvenile context. They looked at the ebb and flow of victimization risk as individuals transition to young adulthood from adolescence. Using data from Add Health, Daigle et al. (2008) found that individuals with low self-control, low levels of parental involvement, and those who live in disadvantaged neighborhoods all faced greater victimization risk. Their results also pointed to the importance of looking at participation in delinquent behaviors. In line with Forde and Kennedy's (1997) study, Daigle and colleagues (2008) found that individuals who spent more time away from home were engaging in a risky lifestyle, as they potentially interact and cross paths with more non-family members and motivated offenders.

Childs, Cochran, and Gibson (2009), using data from the Gang Resistance and Training Program (G.R.E.A.T.), also built upon the adolescent sector of this area of research. They found that both low self-control and gang membership—a measure of

risky lifestyles—increased the prevalence of violent victimization among respondents. While the authors only measured risky lifestyles through gang membership—which ultimately limited their ability to adequately test the mediating effect of risky lifestyles—involvement in a gang places individuals in a variety of risky situations, warranting further consideration of this measure (Childs, Cochran, & Gibson, 2009).

Franklin and colleagues (2012) found that both low self-control and risky lifestyles were related to increased odds of experiencing sexual assault, personal, and property victimization. Franklin et al. (2012) measured risky lifestyles among their college sample by asking respondents how many times per week they were on campus, "partied," went shopping, and about their fraternity/sorority affiliation, as well as participation in drug use/dealing. The authors found that those who spent more time away from home, both "partying" and shopping, as well as those who were active in drug use/dealing, had an increased risk of property and personal victimization (Franklin et al. 2012).

Wattanaporn (2014) looked at self-control, risky behaviors, and unstructured socializing among juveniles. The author measured risky lifestyles through four measures: drug lifestyles, party lifestyles, promiscuous lifestyles, and aggressive lifestyles. The drug lifestyle items asked about drug use, purchasing, and vending. Party lifestyle items concerned hanging out with friends informally, making noise at night, partying, and staying out past midnight (Wattanaporn, 2014). Promiscuity was accounted for through questions asking about sex with strangers, having intercourse with promiscuous individuals, and inviting strangers home at night. Lastly, Wattanaporn (2014) asked respondents about how often they got into a fight with another person, they raise their

voice to defend themselves, confronted others, and got even with those who had 'wronged' them. Wattanaporn (2014) found that higher involvement in risky lifestyles increased the likelihood of being victimized, and vice versa. Low self-control acted indirectly on victimization, and worked through risky lifestyles, which led to the increase in victimization. The author, in her sample of undergraduates, found that delinquents and offenders who had low levels of self-control participated in more risky lifestyle activities, which placed them at a greater risk of victimization (Wattanaporn, 2014).

Risky Lifestyles as a Mediating Variable

Few studies have specifically tested the mediating effect of risky lifestyles measures, and, like the studies discussed previously, included them as additional independent or control variables. The extant literature in this area has found that risky lifestyles has a partial mediating effect when included in the low self-control and risky lifestyles relationship (Franklin, 2011; Pauwels & Svensson, 2011; Ren et al., 2016; Schreck et al., 2002; Turanovic & Pratt, 2014; Turanovic, Reisig, & Pratt, 2015).

Schreck expanded upon his research several years after his influential work (Schreck, Wright, & Miller, 2002). This study looked at precursors to violent victimization, both individual and situational. Utilizing data from high school students in Arkansas, Schreck and colleagues (2002) found that higher self-control is strongly related to family and social ties, and those with high self-control had fewer negative interactions with law enforcement. Juveniles with more friends who had arrest records were at higher risk for violent victimization, since these groups of delinquent adolescents generally put themselves in riskier situations. Schreck and colleagues (2002) found that both situational and individual factors contributed to violent victimization risk. The effect of self-control

on violent victimization remained even when risky lifestyles measures and a delinquent peer variable were included in the analyses.

The effect of risky lifestyles on the relationship between self-control and victimization has been tested not just on violent victimization. Franklin (2011), in her examination of self-control, sexual victimization, and routine activity theory measures/opportunity structures, found that self-control had a significant effect on sexual assault victimization. The effect of self-control on this form of victimization remained significant even after the inclusion of various lifestyle measures, indicative of a partial mediating effect.

Pauwels and Svensson (2011) explored the relationship between offending and victimization, but also tested the direct independent effects of background characteristics, self-control, and risky lifestyles on this relationship. The risky lifestyle measures the authors included were association with delinquent friends, number of nights the respondents spend out, and alcohol use, like the measures used by Franklin (2011). Pauwels and Svensson (2011) found that risky lifestyles had a partial mediating effect among their samples of adolescents from Belgium and Sweden.

Turanovic and Pratt (2014) utilized both self-control and risky lifestyles to delve into the underpinnings of what causes certain people to be re-victimized. Using the G.R.E.A.T dataset like Childs, Cochran, & Gibson (2009), the authors found that self-control influenced whether individuals altered their involvement in risky lifestyles behaviors after their initial victimization (Turanovic & Pratt, 2014). Their examination of the mediating effect of changing involvement in risky lifestyles found that decreasing

involvement in those behaviors partially mediated the effect of low self-control on subsequent victimization.

Turanovic, Reisig, and Pratt (2015) tested whether there were gendered differences in the linkage between low self-control, risky lifestyles (which they accounted for with offending behavior), and victimization. The authors found that the inclusion of risky behavior variables made the effect low self-control had on victimization more modest, but still statistically significant, indicating a partial mediating effect (Turanovic, Reisig, & Pratt, 2015). This is consistent with the previous literature in this area, lending further support to the conclusion that these risky lifestyle variables alone do not fully explain victimization.

More recently, Ren and colleagues (2016) examined the relationship between self-control, risky lifestyles, and victimization among a sample of nearly 3,000 Chinese high school students. The authors found that impulsivity and risk-seeking scores had positive effects on the risk of violent and property victimization. Their findings also support the partial mediating effect of risky lifestyles measures in the relationship between victimization and self-control (Ren et al., 2016). Specifically, violent victimization was influenced by exposure to delinquency, participating in delinquent activities with friends, and involvement in gangs.

Hypotheses

Building upon Gottfredson and Hirschi's (1990) self-control theory and risky lifestyles/routine activity theory, as well as the relevant extant literature, this study will test several hypotheses. The first hypothesis is that individuals with low self-control will have a higher chance of experiencing violent, theft, and bullying victimization. The

second hypothesis is that low self-control will be related to increased involvement in risky lifestyles measures. The third hypothesis is that greater involvement in risky lifestyles will lead to increased odds of victimization. The final hypothesis is that risky lifestyles will mediate the relationship between low self-control and victimization among all three forms (violent, theft, and bullying).

CHAPTER IV

METHODOLOGY

Data Source

Data for this study come from the U.S. portion of the International Self-Report
Delinquency survey (ISRD-2), which collected data on juvenile delinquency and
victimization in 31 countries spanning four continents. The International Self-Report
Delinquency Survey (ISRD-2) provides a vast dataset that addresses multiple aspects of
juvenile delinquency and other behaviors. Respondents in grades seven through nine
were selected from 15 (11 public and four private) schools in several small, medium, and
large cities for the United States sample from 2006-2008. These juveniles, from a
purposive selection of regions in the United States, filled out paper-and-pencil self-report
surveys. The American sample was collected from multiple large cities in the United
States, including from San Antonio, Texas, Illinois, Massachusetts, and New Hampshire.
Collecting data from throughout the country allows for a more representative sample and
greater generalizability to the rest of the United States.

Dependent Variables

The dependent variable in this study is victimization, measured by four items in the ISRD-2 survey. These questions asked about respondents' experiences, within the past twelve months, with assault, robbery, theft, and bullying victimization. This study combines the assault and robbery victimization items to form a violent victimization measure, since both crimes constitute offenses that are more violent. Additionally, a small number of respondents indicated they had experienced either assault or robbery victimization, providing another reason to combine the two. Each is measured

dichotomously, with a response of '0' indicating that no victimization of that type has been experienced, and '1' indicating that the individual has experienced it. While these types of victimization are diverse, Reid and Sullivan (2009) point out that different types of victimization tend to co-occur, making the study of multiple types of victimization useful.

Independent Variables

The second independent variable is low self-control. The ISRD-2 survey accounted for it through twelve items that were adapted from Grasmick et al.'s (1993) self-control scale. The original set of questions totaled at twenty-four and comprised six categories. Those categories were based upon Gottfredson and Hirschi's (1990) six characteristics that are a part of low self-control: impulsive behavior, a preference for simple tasks, a desire for risk-seeking activities, partiality for physical activities over mental ones, self-centeredness, and issues controlling temper. Numerous previous studies have utilized Grasmick and colleague's (1993) measure to operationalize low self-control (Fox, Lane, & Akers, 2012; Franklin, 2011; Jennings et al., 2011; Schreck, 1999; Unnever & Cornell, 2003; Wattanaporn, 2014).

The self-control survey items from the ISRD-2 cover impulsivity, risk-seeking tendencies, level of self-centeredness, and temper. Statements measuring impulsivity levels are: "I act on the spur of the moment without stopping to think," "I do whatever brings me pleasure here and now, even at the cost of some distant goal," and "I'm more concerned with what happens to me in the short run than in the long run." Risk-seeking tendencies were accounted for through the following: "I like to test myself every now and

then by doing something a little risky," "sometimes I will take a risk just for the fun of it," and "excitement and adventure are more important to me than security."

To measure self-centeredness, the questionnaire included the statements: "I try to look out for myself first, even if it means making things difficult for other people," "if things I do upset people, it's their problem not mine," and "I will try to get the things I want even when I know it's causing problems for other people." Lastly, the ISRD-2 survey had the following statements to assess temper: "I lose my temper pretty easily," "when I'm really angry, other people better stay away from me," and "when I have a serious disagreement with someone, it's usually hard for me to talk calmly about it without getting upset."

The current study created four additive scales of the questions that comprise those four categories. Reliability analysis was conducted for each scale to determine their ability to measure what they sought out to measure. The impulsivity scale had a Cronbach's alpha score of 0.705, the risk-seeking scale a score of 0.826, the self-centeredness scale had a score of 0.748, and the temper scale had a score of 0.770.

Mediating Variables

The mediating variable in this study is risky lifestyles, measured through three items: gang membership, an additive scale that addresses delinquency with friends, and another scale that measures peer delinquency. 'Lifestyle,' as defined by Childs and colleagues (2009), includes all of a person's activities, both for work and recreation. The authors state that any variations in those activities influences a person's chance of experiencing victimization. A risky lifestyle includes frequently participating in activities such as drug use, associating with delinquents, and staying out late (Childs et al. 2009).

Additionally, activities that place individuals in contact with a larger amount of people can place them at risk. Being around more people increases the odds of crossing paths with a motivated offender.

Gang membership was accounted for as a dichotomous variable, with '0' for those who do not consider their group of friends a 'gang,' and '1' for those who do. Gang membership is included as a measure of risky lifestyles because those who associate with gang members are at an increased risk for victimization. Prior research uncovered the reasoning behind this increased risk; those who interact with gangs face a higher risk of victimization as either retaliation from rival gangs or from within their own gang (Childs et al., 2009; Fox et al., 2012; Taylor et al., 2007; Taylor et al., 2008). Younger individuals, seeking to find a family-like structure that they may not have at home could seek out gang membership. Lynskey and colleagues (2000), among their sample of eighth graders, found that those with lower self-control had a greater propensity to become involved in a gang. The authors point out that those who do join gangs may not fully appreciate the long-term consequences of that decision (Lynskey et al., 2000).

A scale was also created accounting for friends' delinquency. Previous literature consistently found that those with low self-control tend to associate more with delinquent peers, which in turn led to increased victimization (Agnew et al., 2011; Daigle et al., 2008; Fagan & Mazerolle, 2011; Fox et al., 2012; Stewart, Elifson, & Sterk, 2004). Five items are included concerning drug use, delinquency, and violence committed by the respondent's friends. Each was measured dichotomously, with '0' indicating that their friends did not participate in that activity and '1' if they had. All the items were then added together. The Cronbach's alpha score for this scale was 0.794.

Lastly, a delinquency with friends scale was created using four questions, including how often the group participates in substance use, vandalism, shoplifting, and other delinquent behavior. Extant literature has found an increase in victimization risk that comes with participating in delinquent behaviors (Augustine et al., 2002; Chang et al., 2003; Lauritsen, Sampson, & Laub, 1991; Ousey, Wilcox, & Fisher, 2011; Reid & Sullivan, 2009). Responses were presented in a Likert scale, with responses ranging from '1' as 'never' to '4' being 'always.' Higher scores for this scale indicate higher levels of delinquency in the respondents' friend group. The Cronbach's alpha score for this scale is 0.684.

Control Variables

Several control variables will be included in this study. The first group of control variables concern the respondent's attachment levels, and were derived from Travis Hirschi's (1969) social control theory. School attachment, when it is poor/low, has been found to be related to victimization (Chang, Chen, & Brownson, 2003; Fagan & Mazerolle, 2011; Taylor et al., 2008). In this study, it is measured with four items, including: "If I had to move, I would miss my school," and "Teachers do notice when I am doing well and let me know." Reliability analysis revealed a Cronbach's alpha score of 0.634. All four of the items included in this scale were Likert scales, with '1' being "not at all true," to '4' representing "very true." Higher scores indicated a greater (and more positive) attachment to school.

The ISRD-2 survey also included items concerning neighborhood attachment, crime, and disorder. Previous literature has highlighted how neighborhood disorder is related to increased delinquency and victimization (Daigle et al., 2008; Lauritsen,

Sampson, and Laub, 1991; Wiesner & Rab, 2015). Factor analysis narrowed the original thirteen questions to seven items that were included in the additive scale measure. These items followed the same Likert scale response system. Questions included how true positive statements about the respondent's neighborhood were, such as if the neighborhood watches out for its residents, and if the respondent left their neighborhood would they miss it. The Cronbach's alpha for the scale was 0.815. As with the school attachment scale, higher scores included a greater neighborhood attachment level.

An additive scale of two items comprises a family attachment measure.

Gottfredson and Hirschi (1990) made it clear that parental involvement in the socialization of their child was a major determinant of their level of self-control as they matured. Henson and colleagues (2010) came to similar conclusions, highlighting how parental attachment served as a strong protective factor against violent victimization (also see Daigle et al., 2008; Jennings et al., 2010; Smith & Ecob, 2007).

The two questions involved in the scale ask juveniles about how well they get along with the man and woman who they live with. Responses to these two items were on a Likert scale of four items, with '1' indicating they did not get along well with their parent at all, and '4' indicating they got along very well with their parent. Higher scores indicate that the respondent gets along with their parents better. Reliability analysis for this scale reported a Cronbach's alpha value of 0.570. While this is low, these two items are the best measures for parental attachment in the ISRD-2 questionnaire. Two other questions, one concerning family activities and the other dinners eaten together as a family per week, were initially included in the scale, but the Cronbach's alpha values were both below 0.5 as each item was added.

The second set of control variables focus on demographic characteristics. A dichotomous measure of family intactness was included, with '0' indicating the family is not intact and '1' indicating an intact family (both biological parents reside with the adolescent). It can be argued that those juveniles who reside in a non-intact or "broken" home would not receive the same level of parental supervision or attention that they need to have their deviant behavior accounted for, punished, and corrected. Gottfredson and Hirschi (1990) stressed the need for parents to do this for their child to develop self-control.

Parental employment was accounted for with an additive scale of two items: if their mother and if their father is employed full-time. The original questions on the ISRD-2 questionnaire ask the respondents if their mother and father have a job. Respondents were given eight options, including choices such as he/she has a steady job, he/she sometimes has work, he/she would like to work but can't find a job, and he/she has a long-term illness/disability, among others. To make measurement of parental employment easier, these questions were recoded into two new measures, with a score of '1' indicating the respondent's mother/father has a steady job, and '0' representing all other employment situations.

Several region variables are also included, since there may be differences in responses from each of the areas where the survey was administered. The cities were selected from three different areas of the country: the Southwest, the Midwest, and the Northeast (Ren et al., 2015). Three dichotomous variables will each account for a region. The Southwest region variable will serve as the reference group in the multivariate analyses.

Another variable that will be included accounts for the type of school that the respondent was attending: public or private. Research, while limited, has found that students at public schools tend to experience more victimization than their peers who attend private schools. DeVoe and Bauer, in partnership with the National Center for Education Statistics, examined school victimization in the United States between 2008-2009, found that the victimization rate at the public schools in the sample was 4.1%, compared to 1.8% at private schools. A more recent examination of student-reported victimization at school found no difference between victimization at public and private schools, with both having roughly 3% of respondents indicating they had been victimized (Robers, Zhang, Morgan, & Musu-Gillette, 2015). The different aspects of public and private schools may play a role in differences among the other variables.

Age will be measured using the grade level (grades seven through nine) the respondent provided. The original data collectors masked the age item in the dataset, so grade level will be used as a proxy. Adolescents in grades seven through nine in the United States are usually between 12 and 15 years of age. Each grade will be coded as a dummy variable, with '0' indicating that the respondent is not in that grade, and '1' indicating that the student is in that grade. The variable, grade 9, is treated as the reference category in the multivariate analyses.

Lastly, sex will also be included as a control variable, with '0' for female and '1' for male. Prior literature in this area of study has found that gendered differences are present in terms of self-control levels. Males tended to display lower self-control than their female peers, which led to a greater risk for victimization (Daigle et al., 2008; Schreck, 1999; Tittle, Ward, & Grasmick, 2003).

Analytic Plan

After conducting preliminary data screening, descriptive statistics will be compiled to provide an overview of how the entire sample responded to each of the measured variables. Logistic regressions will be conducted to determine the effect each variable has on the odds of experiencing violent, theft, and bullying victimization.

Analyses will also assist in determining the degree of impact risky lifestyles measures influences the relationship between low self-control and victimization.

In order to measure the mediating effects of a variable, four conditions need to be established. Baron and Kenny (1986) addressed this in their seminal piece concerning the difference between moderator and mediator variables. These are reflected in the hypotheses above. The first is that a relationship needs to be established between the independent variable and the dependent variable. Thus, this paper will first examine if there is an association between low self-control and the three forms of victimization that are measured. Second, Baron and Kenny (1986) indicate that a relationship needs to also be established between the independent variable and the mediator. This study will investigate if the relationship between low self-control and risky lifestyles is statistically significant. The third condition that needs to be met is that a relationship must be established between the dependent variable—victimization—and the mediator—risky lifestyles. The final condition is that the inclusion of the mediating variable strengthens the relationship between the independent and dependent variables.

CHAPTER V

RESULTS

Descriptive Statistics

Table 1 provides descriptive statistics for each of the variables. While not included in the table, a more detailed description of each question/statement comprising the scales is included here. Among the three types of victimization, theft was by far the most common for this sample, with 29.3 percent of the sample reporting they had been a victim of theft. Nearly 19 percent of respondents (18.8 percent) were the victims of bullying, while 6.9 percent reported they had been a victim of violent (assault and robbery) victimization.

Of the four scales for the self-control measures, respondents had the greatest levels of agreement for risk-seeking (mean score of 7.34) and temper (mean score of 7.21). Scores ranged from three to twelve, with higher scores indicating a greater level of agreement with the statement, which represents lower self-control. The specific percentages of agreement for each of the self-control items are included in Table 2.

Among the three impulsivity questions, the respondents indicated the greatest level of agreement for "I act on the spur of the moment without stopping to think," with over 56 percent agreeing somewhat or agreeing fully, combined.

Within the risk-seeking scale, the sample agreed the most with: "I like to test myself every now and then by doing something a little risky," and "Sometimes I will take a risk just for the fun of it," with roughly 54 percent agreeing somewhat and agreeing fully, combined, with the statement.

The three items comprising the self-centeredness measure all were among the self-control statements with the lowest levels of agreement, with mean scores ranging from 1.77 to 2.20, on a scale of 1 to 4. Among this sample, respondents disagreed the most with: "If things I do upset people, it's their problem not mine," and "I will try to get the things I want even when I know it's causing problems for other people," with 70.4 percent and 76.7 percent disagreeing somewhat or disagreeing fully, combined, with the items, respectively.

Among the statements within the temper scale, 52.8 percent of respondents agreed somewhat or agreed fully with the statement: "When I have a serious disagreement with someone, it's usually hard for me to talk calmly about it without getting upset."

Within the risky lifestyles measures, roughly 5.3 percent of the sample indicated that they consider their group of friends to be a gang. While low, this is consistent with current literature that determined the prevalence of gang membership in the United States, with about five percent of adolescents indicating they are in a gang (Pyrooz & Sweeten, 2015).

To account for delinquent acts committed with friends, respondents were asked if they participated in the following when they hung out with friends: alcohol and drug use, vandalism, shoplifting, and harassing people. Scores on this scale ranged from zero to sixteen, with higher scores indicating a greater level of involvement in delinquent activities. The mean for the scale among this sample is 5.18, with a large majority of respondents indicating they did not participate in these delinquent activities, ranging roughly from 76 percent to 88 percent for vandalism, substance use and shoplifting. Roughly 38 percent of the sample indicated they frightened others.

The final mediating variable, friends' delinquency, includes five questions asking survey-takers if they have friends who have used drugs, shoplifted, robbed, threatened someone, and who assaulted someone. Scale scores ranged from zero to five, with higher scores indicating that the respondent's friends were more delinquent. Among the sample, the mean score for the friends' delinquency scale was 1.33. About 41.3 percent of respondents indicated that at least one of their friends used drugs, and about 42.5 percent reported that at least one friend had shoplifted. Participation in the other three forms of delinquency was far lower among the friends of the respondents. Around one-quarter of the sample indicated that at least one of their friends had been involved in burglary, while 13.1 percent and 11.6 percent had at least one friend who threatened someone and assaulted someone, respectively.

Three attachment scales are included as control variables, measuring neighborhood, school, and family attachment. The neighborhood attachment scale included six items, with all of them related to positive aspects of a neighborhood. Higher scores indicate a greater level of neighborhood attachment. Roughly 40 percent of respondents indicated that the statements are "very true" for many of the statements, but 50 percent stated the item "My neighbors notice when I am misbehaving and let me know" was "not at all true." Additionally, for the statement concerning how close-knit a neighborhood is, each level of agreement had similar percentages.

Among the school attachment variables, roughly 80 percent of respondents indicated that they would miss their school if they had to move, while nearly 74 percent indicated that their "teachers notice that I am doing well and let me know." Seventy

percent indicated they like their school, and 83.7 percent indicated that their schools have extracurricular activities.

The last attachment scale included as a control variable, family attachment, is a combination of two items gauging how well the respondents get along with their mother and father. Each item was scored from zero to four, with higher scores representative of getting along better with each parent. The mean family attachment score for this sample is 6.75.

The remaining control variables served as demographic measures. The parental employment measure (mean score 1.41) was recoded from the original items on the survey, where a score of '0' means that neither their mother or father are employed full-time, '1' representative of either parent being employed and the other is not, and '2' indicating that both parents have a full-time job. Around 64.5 percent of the sample live in an intact family, roughly equivalent to the current rate in the United States: 69 percent (United States Census Bureau, 2016).

Respondents from the Northeast comprise 38.8 percent of the sample, while 39.4 percent came from the Midwest, with the remaining 21.8 percent from the Southwest. In addition, 78.1 percent of the sample attended public school, while 21.9 percent attended private school, higher than the national average of 10% who attended private school in the United States in 2013-14 (National Center for Education Statistics, 2017).

Nearly 50 percent of the sample was in ninth grade at the time they filled out the survey, with the remaining half of the sample evenly distributed between seventh (25.2 percent) and eighth grades (25 percent). Additionally, 52.2 percent of the sample is female.

Table 1

Descriptive Statistics (n= 2,396)

Dependent Variables (Victimization)	Freq. (%)	Min.	Max.	Mean (S.D.)
Violent	6.9			
Theft	29.3			
Bullying	18.8			
Independent Variables (Self-Control)				
Impulsivity		3	12	6.92 (2.39)
Risk Seeking		3	12	7.34 (2.75)
Self-Centeredness		3	12	5.89 (2.42)
Temper		3	12	7.21 (2.73)
Mediating Variables (Risky Lifestyles)				
Gang Involvement	5.3			
Delinquency with Friends		0	16	5.18 (2.00)
Friends' Delinquency		0	5	1.33 (1.56)
Control Variables				
Neighborhood Attachment		7	28	19.83 (4.96)
School Attachment		4	16	12.70 (2.61)
Family Attachment		0	8	6.75 (1.68)
Parental Employment		0	2	1.41 (0.66)
Intact Family	64.5			
Non-Intact Family	35.0			
Northeast (Mass. & N.H.)	38.8			
Midwest (Illinois)	35.0			
Southwest (Texas)	21.8			
Public School	78.1			
Private School	21.9			
7 th grade	25.2			
8 th grade	25.0			
9 th grade	49.8			
Males	47.7			
Females	52.2			

Table 2
Self-Control Items

Item	Disagree Fully (%)	Disagree Somewhat (%)	Agree Somewhat (%)	Agree Fully (%)	Mean (S.D.)
Impulsivity α=0.705					
Act on spur of moment	16.5	25.0	39.9	16.3	2.57 (0.96)
Act for short pleasure	33.4	27.8	24.7	11.4	2.14 (1.02)
More concerned with short run	31.6	26.7	26.0	12.4	2.20 (1.03)
Risk-seeking α =0.826					
Do risky things	22.8	20.0	34.0	20.0	2.53 (1.07)
Risk just for fun	22.8	19.5	31.8	22.5	2.56 (1.09)
Excitement is important	28.1	28.9	24.7	14.4	2.26 (1.06)
Self-Centeredness α =0.748					
Look out for myself first	29.8	30.1	24.5	12.4	2.20 (1.02)
Don't mind upsetting others	44.7	25.7	15.3	11.0	1.92 (1.04)
Don't mind causing problems	48.4	28.3	14.0	5.9	1.77 (0.91)
Temper $\alpha=0.770$					
Lose temper easily	26.9	26.5	24.4	18.6	2.36 (1.08)
People stay away if angry	30.9	25.9	21.5	18.1	2.28 (1.10)
Hard to discuss calmly	22.0	22.0	27.9	24.9	2.58 (1.10)

This study's hypotheses are based upon the four conditions that Baron and Kenny (1986) outlined in their seminal piece concerning the mediating effect of a variable. To test the first condition of Baron and Kenny's (1986) steps to establish a mediating effect—a relationship between the independent and dependent variable—three logistic regressions were run, one for each form of victimization. All of the independent and control variables were included in the final models as a means to test this study's first hypothesis: low self-control will increase victimization risk. The corresponding b, standard error, and odds ratio values are included in table 3.

Table 3

Logistic Regressions Testing the Effect of Self-Control on Victimization

Variables	Vi	olent Victim	ization	r	Theft Victimi	zation	Bul	lying Victim	ization
Independent Variables	ь	SE	Exp(b)	b	SE	Exp(b)	ь	SE	Exp(b)
Impulsivity	-0.004	.056	0.996	0.009	.032	0.991	0.067	.036	1.070
Risk-Seeking	0.161	.050	1.175**	0.130	.026	1.139***	-0.028	.029	0.972
Self-Centeredness	-0.044	.048	0.957	0.007	.028	0.993	-0.051	.032	0.950
Temper	0.042	.046	1.042	0.049	.025	1.050*	0.107	.029	1.113***
Control Variables									
Neighborhood Attachment	-0.011	.021	0.989	0.010	.012	1.010	-0.005	.014	0.995
School Attachment	-0.038	.039	0.963	- 0.041	.022	0.960	-0.035	.025	0.965
Family Attachment	-0.320	.058	0.726***	- 0.186	.037	0.830***	-0.142	.041	0.867**
Family Intactness	0.127	.307	1.135	0.145	.128	0.865	0.093	.149	1.097
Parental Employment	0.281	.164	1.324	0.068	.085	0.934	0.066	.098	1.068

(continued)

Variables	Vi	iolent Victimi	zation		Theft Victimiz	zation	Bul		
Northeast ^a	0.475	.320	1.608	0.536	.184	1.710**	0.047	.206	1.048
Midwest ^a	0.209	.299	1.232	0.503	.172	1.653**	0.446	.193	1.562
School Type ^b	1.002	.349	2.724**	0.365	.154	0.694*	-0.540	.175	0.583**
Seventh Grade ^c	-0.211	.280	0.810	0.300	.148	0.740*	0.395	.167	1.485*
Eighth Grade °	-0.271	.273	0.763	0.353	.148	0.703*	0.462	.165	1.588**
Sex	0.095	.202	1.100	0.109	.109	1.228	0.021	.126	1.021
Model χ ²		89.219***			169.945***			74.271***	
Nagelkerke r ²		0.125			0.126			0.065	

^{*}p<.05; **p<.01; ***p<.001; Reference groups: a: Southwest, b: Private School, c: 9th Grade

The logistic regression testing self-control and the control variables' effects on violent victimization uncovered several statistically significant results. With every unit increase in risk seeking, the odds of violent victimization for the sample increased by 17.5 percent. In addition, with every unit increase in the school type variable (corresponding with public school attendance), violent victimization risk increased by 27.2 percent. Family attachment acted as a protective factor against violent victimization, with a one-unit increase in family attachment related to a 27.4 percent decrease in victimization odds.

The second logistic regression included in table 3 tested the independent and control variables' effects on theft victimization. Risk seeking was again significant, with a one-unit increase in the risk-seeking measure (indicating lower self-control) corresponding to an 11.3 percent increase in theft victimization odds. Temper was also significant, with a one-unit increase related to a 10.5 percent increased chance of experiencing violent victimization. Among the control variables, six were significant. With the Southwest region variable acting as the reference group, respondents from the Northeast had a 17.1 percent higher chance of experiencing theft victimization, while those from the Midwest faced a 16.5 percent higher chance of experiencing theft victimization. Those in public school had a 6.9 percent lower theft victimization risk compared to their private school-attending peers. Additionally, those in seventh grade and eighth grade faced a 7.4 percent and 7 percent lower chance of experiencing theft victimization compared to the ninth graders in the sample. Family attachment acted as a protective factor as well, with each unit increase in the scale corresponding to an 8.3 percent decrease in theft victimization odds.

The final logistic regression examined bullying victimization. Among the low self-control variables, temper was significant, with a one-unit increase in the temper scale score (indicative of lower self-control) corresponding to an 11.1 percent increase in bullying victimization odds. As with theft victimization, those in public school had a 5.8 percent lower chance of being bullied compared to their private school counterparts.

Those in the seventh grade faced a 14.9 percent higher chance of experiencing bullying victimization, while those in eighth grade had a 15.9 percent higher chance of being bullied, compared to those in the ninth grade. As with the other forms of victimization, family attachment acted as a protective factor against bullying victimization, with an 8.7 percent decrease in victimization odds for every one-unit increase in family attachment.

These results provide support both for the first hypothesis, as well as for the extant literature that self-control predicts victimization (see Pratt et al., 2014). Indeed, risk seeking was a significant predictor of violent and theft victimization, while temper was a significant predictor of theft and bullying victimization. Within this sample, self-control was related to victimization, but the effect was modest for each model. R-squared values for each of the models were fairly low: 0.125 for violent victimization, 0.126 for theft victimization, and 0.065 for bullying victimization.

According to Baron and Kenny (1986), one of the conditions that must be met to establish a mediating effect is to see if a relationship between the independent and mediating variable is present. This condition was what the second hypothesis was based upon, that low self-control would correspond with increased involvement in risky lifestyles. To test for this, a logistic regression and two ordinary least-squares (OLS) regressions were run, with results included in Table 4. All four of the self-control

measures are significant predictors of gang membership, with a one-unit increase in each corresponding to roughly an 11 to 12 percent increase in gang membership. Due to the skewness of both the delinquency with friends, and friends' delinquency scales, a natural logarithm was run for each to reduce the skewness. The natural logarithms of each scale were included in the OLS regressions. For the delinquency with friends scale, all four measures of self-control were highly significant predictors of increased involvement in delinquency (p<.001). For friends' delinquency, impulsivity, risk-seeking, and temper were all statistically significant predictors of more delinquent friends, while self-centeredness was not. As a whole, these results indicate that self-control has an effect on each measure of risky lifestyles, providing support for hypothesis two.

Table 4

Logistic Regression and OLS Regressions Testing the Effect of Self-Control on Risky

Lifestyles

		Gang Membership	p	Delinquency with Friends (LN)		Friends' Delinquency (LN)	
Independent Variables	В	SE	Exp(b)	В	Beta	b	Beta
Impulsivity	0.156	.062	1.168*	0.013***	.109	0.025***	.091
Risk Seeking	0.159	.055	1.172**	0.028***	.271	0.067***	.282
Self- Centeredness	0.141	.048	1.151**	0.015***	.127	0.007	.026
Temper	0.135	.050	1.145**	0.009***	.091	0.042***	.176
Model χ ²		137.272***					
Nagelkerke r ²		0.187					
Adj. R ²				0.236		0.225	

Table 5 includes all of the independent, mediating, and control variables in three logistic regressions, each testing these variable's effects on victimization. These regressions test the remaining conditions Baron and Kenny (1986) state that must be present for a variable to have a mediating effect, as well as this study's final two hypotheses. For the model that examines violent victimization, several variables have a significant effect. Risk seeking remained significant when the mediating variables were added, with a one-unit increase in risk-seeking corresponding with an 11.2 percent increase in violent victimization odds. The delinquency with friends and friends' delinquency scales were significant at the 0.1 level, with both increasing violent victimization odds. While this does uphold the third hypothesis, that greater involvement in risky lifestyles was related to higher victimization odds, the level of significance was not as robust as it was for other variables.

Several of the control variables were significant. Family attachment was highly significant (p<.001), again acting as a protective factor against violent victimization, with a one-unit increase in family attachment causing a 7.4 percent decrease in victimization odds. School type was also significant, with the regression result indicating that those in public school faced a 25.4 percent higher chance of experiencing violent victimization. Parental employment, interestingly, was significant at the 0.1 level, with those who had employed parents facing increased violent victimization odds.

Table 5

Logistic Regressions Testing the Effects of Self-Control and Risky Lifestyles on Victimization

Variables	Vio	olent Victimi	zation		Theft Victimiz	ation	Bu	llying Victim	ization
Independent Variables	В	SE	Exp(b)	В	SE	Exp(b)	b	SE	Exp(b)
Impulsivity	-0.020	.057	0.981	-0.021	.032	0.979	0.065	.036	1.067†
Risk Seeking	0.111	.052	1.118*	0.093	.027	1.097**	-0.033	.031	0.968
Self-Centeredness	-0.057	.049	0.945	-0.020	.028	0.980	-0.049	.032	0.952
Temper	0.022	.047	1.023	0.035	.025	1.036	0.104	.029	1.109***
Mediating Variables									
Gang Membership	-0.237	.417	0.789	0.023	.260	1.023	-0.065	.297	0.937
Delinquency with Friends (LN)	0.776	.427	2.172†	0.740	.257	2.097**	-0.227	.283	0.797
Friends' Delinquency (LN)	0.340	.196	1.406†	0.228	.102	1.256*	0.167	.118	1.182
Control Variables									
Neighborhood Attachment	-0.007	.021	0.993	0.012	.012	1.012	-0.004	.014	0.996
School Attachment	-0.029	.039	0.971	-0.034	.023	0.966	-0.035	.025	0.966
Family Attachment	-0.304	.058	0.738***	-0.172	.037	0.842***	-0.139	.041	0.870**
Family Intactness	0.165	.230	1.180	-0.116	.129	0.890	0.111	.149	1.118
Control Variables cont'd	В	SE	Exp(b)	В	SE	Exp(b)	b	SE	Exp(b)

(continued)

Variables	Vie	olent Victimiz	zation	r	Theft Victimiza	ntion	Bu	Bullying Victimization		
Parental Employment	0.279	.165	1.322†	-0.067	.086	0.936	0.071	.098	1.073	
Northeast ^a	0.406	.321	1.500	0.498	.185	1.646**	0.040	.207	1.041	
Midwest ^a	0.166	.302	1.181	0.481	.174	1.618**	0.442	.193	1.555*	
School Type b	0.934	.352	2.544**	-0.418	.155	0.658**	-0.538	.176	0.584**	
Seventh Grade ^c	-0.075	.285	0.927	-0.216	.151	0.806	0.425	.170	1.529*	
Eighth Grade ^c	-0.197	.275	0.821	-0.319	.149	0.727*	0.478	.166	1.613**	
Sex	0.091	.204	1.096	0.193	.111	1.213†	0.033	.126	1.034	
Model χ^2		98.184***			189.887***			76.519***		
Nagelkerke r ²		0.137			0.140			0.067		

^{*}p<.05; **p<.01; ***p<.001; †p<.1; Reference groups: a: Southwest, b: Private School, c: 9th Grade

The second logistic regression was for theft victimization. Risk seeking was the only self-control measure that was a significant predictor of theft victimization, with a one-unit increase in the risk-seeking score corresponding with an 11 percent increase in theft victimization odds. Two mediating variables were significant. The delinquency with friends scale and friends' delinquency increased the odds of experiencing theft victimization, with a one-unit increase in both corresponding to a 21 percent and a 12.6 percent increase, respectively. Similar to the previous model that did not include the mediating variables, multiple control variables were significant predictors of theft victimization. Family attachment was significant once more, with a one-unit increase in family attachment leading to an 8.4 percent decrease in theft victimization odds. Being in public school and being in the eighth grade also led to decreased odds of theft victimization. Those in public school had a 6.6 percent lower chance of experiencing theft victimization, while those in the eighth grade had a 7.3 percent lower chance compared to their ninth grade counterparts. Respondents in the northeast and Midwest faced increased odds of theft victimization compared to the southwest respondents (the reference group), both roughly around 16 percent. Sex was significant at the 0.1 level, with males facing a higher theft victimization risk than females in this sample.

The final model examined bullying victimization. Similar to the previous regressions run (see Table 3), impulsivity (p<.10 and temper (p<.001) were significant predictors of bullying victimization. A one-unit increase in the temper scale corresponded to an 11 percent increase in the likelihood of being bullied. None of the mediating variables were significant predictors of bullying victimization. Several of the control variables were significant, however. Like the previous regressions run for violent and

theft victimization, family attachment served as a protective factor against bullying victimization, with a one-unit increase in the scale corresponding to an 8.7 percent decrease in victimization odds. Survey-takers in the Midwest faced higher odds of being bullied compared to their peers in the southwest, at 15.6 percent. In addition, those in public school had a 5.8 percent lower chance of experiencing bullying victimization than their peers in private school. Those in the seventh and eighth grades faced higher odds of being bullied compared to their ninth-grade peers, at 15.3 percent and 16.1 percent, respectively.

The r-square values in the final logistic regressions indicate the percentage of cases that the full model can predict accurately. Overall, these models for violent and theft victimization had significantly higher r-square values than the models that did not include the mediating variables. This improvement was marginal, however. This statistically significant improvement satisfies Baron and Kenny's (1986) fourth condition for establishing the mediating effect of a variable: that the addition of the mediating variable strengthens the relationship between the independent and dependent variables. This too provides support for the final hypothesis of this study, that the inclusion of risky lifestyles measures strengthens the relationship between self-control and risky lifestyles, except for bullying victimization. The differences between the different types of victimization in terms of their r-square values may be due to the nature of each type of crime. Bullying is more about establishing power and control, as well as having social status implications. Bullying also tends to be based on contextual factors (Piquero et al., 2013). These factors may explain why the logistic regression models were not able to

predict as many cases for bullying victimization as compared to violent and theft victimization.

For violent victimization, the Nagelkerke r-square value is 0.137 in the full model, compared to 0.125. The final model for theft victimization had an r-square value of 0.140, an improvement upon the model that did not include risky lifestyles, which had an r-square value of 0.126. The improvement in prediction was not significant for bullying victimization, however, with the final model having an r-square value of 0.067, while the original was at 0.065.

Overall, support was found for all four hypotheses, to varying degrees. Low self-control did correspond with increased victimization risk among this sample of adolescents. Those with low self-control also had greater levels of involvement in risky lifestyles. In addition, increased participation in the forms of risky lifestyles included in the analyses corresponded to increased victimization risk, but the level of significance for these variables was not as strong as it was for the independent and control variables' effects on victimization. Last, the inclusion of risky lifestyles measures in the analyses strengthened the relationship between low self-control and victimization, but not among bullying victimization.

CHAPTER VI

DISCUSSION & CONCLUSION

This study sought to examine the relationship between low self-control and victimization, and the influence of the addition of risky lifestyles among a sample of American juveniles. There is little extant scholarship in this area, so this study aimed to add to it by examining the mediating effect of risky lifestyles among multiple forms of victimization.

Prevalence of victimization varied among all three regions and between public and private school attendees. The Northeast respondents reported less violent victimization than the whole sample (4.1 percent vs. 6.9 percent), but reported higher levels of theft and bullying victimization compared to the entire sample (34.3 percent vs. 29.3 percent, and 22.3 percent vs. 18.8 percent, respectively). Those in the Southwest portion of the sample reported lower rates of all three forms of victimization, when compared to the whole sample (5.7 percent for violent victimization, 19.2 percent for theft victimization, and 13.8 percent for bullying victimization). Among the respondents from the Midwest region, all three victimization rates were higher than the sample as a whole (8.5 percent for violent victimization, 33.4 percent for theft victimization, and 20.9 percent for bullying victimization). The Southwest portion of the sample reported the lowest victimization rates for all three forms of victimization measured. Those who attended public school reported higher levels of violent victimization compared to their private school-attending peers, but lower levels of theft and bullying victimization.

Not all the self-control measures were significant, but this is consistent with extant literature that has found that self-control's effect on victimization is modest overall

(Pratt et al., 2014). Among this sample, two aspects of low self-control—risk-seeking and temper—had significant impacts on victimization in the final models. This is in line with previous literature, which found that risk-seeking (e.g. Ren et al., 2016) and temper (e.g. Forde & Kennedy, 1997; Wattanaporn, 2014) both have significant impacts on victimization. Impulsivity did not have significant effects on victimization among this sample. This is not consistent with the extant self-control/victimization research, which found that impulsivity affects victimization (Augustine et al., 2002; Schreck et al., 2012).

Studies that have examined the mediating effect of risky lifestyles in the low self-control/victimization has found that there is a partial mediating effect (e.g. Ren et al., 2016; Turanovic & Pratt, 2014; Turanovic, Reisig, & Pratt, 2015). Similar findings were reached by this study, but the partial mediating effect was less robust. Gang membership did not have a significant effect in any of the models, which is not consistent with the relevant literature (e.g. Childs et al., 2009; Fox et al., 2012; Taylor et al., 2007; Taylor et al., 2008). The delinquency with friends and friends' delinquency risky lifestyles scales were significant predictors of both violent and theft victimization, but only at the 0.1 level for violent victimization.

Among the control variables, the family attachment measure, which was a combination of two items concerning how well respondents got along with their mother and their father, is worthy of future empirical attention due to its consistent significance in each of the models. The addition of the risky lifestyles measures did not influence the significance levels, either, indicating that the effects of family attachment on each type of victimization in this study is robust. As Gottfredson and Hirschi (1990) point out, parents who are attentive, punish and reward behavior, and who establish a relationship with their

child provide a better chance for higher self-control to develop in their children. Larger scores on the parental attachment scale correspond to more positive relationships between parent and child, which should lead to increased self-control if Gottfredson and Hirschi's (1990) general theory of crime is correct. These higher levels of self-control, then, should lead to less involvement in riskier lifestyle activities, and lower odds of experiencing violent, theft, and bullying victimization.

The school type variable had significant effects on risk of all three types of victimization, with those in public school facing higher violent victimization odds, but lower theft and bullying victimization odds. Something about the two different school types may be affecting victimization risk, but without more specific information about the schools where the samples were collected, only speculations can be made. It is entirely possible that there are different demographic characteristics for those who attend public school compared to those who go to private schools. These differences could influence the school environment, student-to-student interactions, among other aspects of school. Future research should explore this unique influence that school type has on victimization risk. Additional scholarly attention may be important for location-based variables within the low self-control/risky lifestyles/victimization relationship. Area influenced theft and bullying victimization risk among this sample of youths, but a more detailed exploration of this effect would be empirically challenging due to the possibility of myriad extraneous variables.

Age, which was measured through grade level as a proxy, also had significant effects on theft and bullying victimization risk. Those in eighth grade faced higher odds of experiencing theft and bullying compared to the ninth graders in the sample (the

reference group) as well as the seventh graders. Eighth graders tend to be in middle schools in the United States, so there may be some factors unique to, or amplified in, middle school that are at work.

Implications

The information gleaned from this and related studies could uncover particular activities that place individuals at a greater risk for victimization, as well as certain factors of self-control that are significant predictors of victimization. Low self-control is likely not solidified by age eight, as Gottfredson and Hirschi (1990) originally claimed, since the brain continues to develop into a person's mid-twenties. Continued examination of self-control can help us better understand how we can cultivate higher self-control, especially among juveniles. Programs could be established that could at least reduce their participation in risky lifestyle aspects.

The results from this sample uncovered varying victimization risks among public and private schools, pointing to potential differences between the two that should be explored in future research. Those in this sample who attended public school faced higher violent victimization odds, but had lower theft and bullying victimization odds than their peers who attended private schools. If these findings hold true for other samples, schools should consider making changes that will decrease victimizations of these types.

Limitations

This study is not without limitation. Reliance upon secondary data can lead to difficult empirical decisions and potentially to compromises concerning how to operationalize a variable. The survey instrument does not always include what researchers would like to ideally measure a variable. The ISRD-2 measure does not

include race as one of the demographic variables it measures, due to the complexities of measuring it with a survey that is administered to 31 different countries, despite it playing a role in the self-control and victimization relationship. In addition, the original age variable is masked within the dataset, leading to a potentially less accurate measure of age with the use of grade level.

The measures for low self-control this study utilized, which are from Grasmick et al.'s (1993) self-control scale, did not include two of the six main characteristics of self-control that Gottfredson and Hirschi (1990) described. The other two aspects of self-control—preference for simple over complex tasks, and a preference for physical over mental activities—could provide a more comprehensive examination of self-control than the current model.

Conclusion

This study found further evidence that risky lifestyles acts as a mediating variable in the low self-control/victimization relationship, an area that has received little empirical attention. Risky lifestyles had a partial mediating effect, since the self-control measures still had significant effects on victimization when the risky lifestyles measures were included in the regressions. This is consistent with the extant literature in this area (Franklin, 2011; Pauwels & Svensson, 2011; Ren et al., 2016; Schreck et al., 2002; Turanovic & Pratt, 2014; Turanovic, Reisig, & Pratt, 2015).

All four of the hypotheses were supported by the analyses. Those with lower levels of self-control did indeed face higher risks of violent, theft, and bullying victimization. Individuals with low self-control had increased participation in the aspects of a risky lifestyle. Greater involvement in risky lifestyles increased the odds of

victimization, and the inclusion of risky lifestyles strengthened the relationship between low self-control and victimization. Bullying victimization was an exception, however, as the original model (sans risky lifestyles) had a low r-square value, and it remained low. Some inherent differences between bullying and the other forms of victimization may be influencing this disparity.

Future research, in addition to exploring the variables discussed earlier, should include other types of victimization, to foster a more comprehensive examination of how self-control, risky lifestyles, and various control variables are related to different forms of victimization. It is likely that there will be different effects that each variable will have on these other types of victimization. Additionally, a wider-range exploration of lifestyles could uncover other activities that increase victimization risk. This area of research needs greater empirical attention, since self-control and lifestyles theories have consistently been found to be predictors of victimization. Both have been linked to increased opportunity for victimization, and together predict victimization odds better than on their own. If we as researchers can determine what factors influence victimization risk, society can work to prevent future victimization from occurring.

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APPENDIX



Institutional Review Board

Office of Research and Sponsored Programs 903 Bowers Blvd, Huntsville, TX 77341-2448

Phone: 936.294.4875 Fax: 936.294.3622 irb@shsu.edu

www.shsu.edu/~rgs_www/irb/

DATE: June 20, 2017

TO: Matthew Bills [Faculty Sponsor: Dr. Ling Ren]

FROM: Sam Houston State University (SHSU) IRB

PROJECT TITLE: The Impact of Low Self-Control and Risky Lifestyles on Juvenile

Victimization [T/D]

PROTOCOL #: 2017-05-35170

SUBMISSION TYPE: INITIAL REVIEW

ACTION: DETERMINATION OF EXEMPT STATUS

DECISION DATE: June 20, 2017

REVIEW CATEGORY: Category 4—research involving existing, publicly available data usually has

little, if any, associated risk, particularly if subject identifiers are removed

from the data or specimens.

Thank you for your submission of Initial Review materials for this project. The Sam Houston State University (SHSU) IRB has determined this project is EXEMPT FROM IRB REVIEW according to federal regulations.

We will retain a copy of this correspondence within our records.

* What should investigators do when considering changes to an exempt study that could make it nonexempt?

It is the PI's responsibility to consult with the IRB whenever questions arise about whether planned changes to an exempt study might make that study nonexempt human subjects research. In this case, please make available sufficient information to the IRB so it can make a correct determination.

If you have any questions, please contact the IRB Office at 936-294-4875 or irb@shsu.edu. Please include your project title and protocol number in all correspondence with this committee.

Sincerely,

Donna Desforges IRB Chair, PHSC

This letter has been electronically signed in accordance with all applicable regulations, and a copy is retained within Sam Houston State University IRB's records

VITA

Matthew A. Bills

EDUCATION

M.A. Expected August 2017, Sam Houston State University Criminology/Criminal Justice

Thesis (In Progress): The Impact of Low Self-Control and Risky Lifestyles on Juvenile Victimization, Committee Members: Dr. Ling Ren (Chair), Dr. Ryan Randa, and Dr. Travis Franklin

B.S. May 2015, Sam Houston State University Major: Criminal Justice; Minor: Psychology

PUBLICATIONS

Peer-reviewed journal articles:

Ni He, Ling Ren, Jihong Zhao, & Matthew A. Bills. (2017). Public attitudes toward the police: Findings from a dual-frame telephone survey. *International Journal of Offender Therapy & Comparative Criminology*.

Brittany E. Hayes, Eryn N. O'Neal, Katherine A. Meeker, Sarah A. Steele, Patrick Q. Brady, & Matthew A. Bills. (Under Review). Technological strategies to enhance campus safety. *Journal of Aggression, Conflict, and Peace Research*.

MANUSCRIPTS IN PROGRESS

Matthew Bills. The Impact of Low Self-Control and Risky Lifestyles on Juvenile Victimization.

HONORS AND AWARDS

- The Graduate Bearkat Grant, Fall 2016-Fall 2017
- President's List, Fall 2012-Spring 2015
- Dean's List, Fall 2011-Spring 2015
- Graduated Summa Cum Laude and with Honors, May 2015

- 2012 Recipient of the Assam Scholarship in Honors Research, earned through involvement with the Undergraduate Research Symposium run by the Elliot T. Bowers Honors College at Sam Houston State University
- Research project concerning hate crime trends in post-9/11 America; Faculty Sponsor: Dr. Andrew Prelog

CONFERENCE PRESENTATIONS

Bills, M.A., & Ren, L. (March 2017). The impact of low self-control and risky lifestyles on juvenile victimization. Paper will be presented at the Academy of Criminal Justice Sciences (ACJS) annual meeting in Kansas City, Missouri.

WORK EXPERIENCE

- Served as a Teaching Assistant and assisted in various research, 20 hours/week each semester:
- Fall 2015- Drs. Ryan Randa and Jihong Zhao
- Spring 2016- Drs. Randy Garner and Ryan Randa
- Summer 2016- Drs. Kathy Latz and Victoria Titterington
- Provided additional assistance to Dr. Titterington in the structuring and formatting of a Masters-level Victimology course
- Fall 2016 & Spring 2017- Drs. Brittany Hayes, Eryn O'Neal, & Ling Ren
- Assisted Drs. Hayes and O'Neal with data entry and checks for their campus climate survey
- Summer 2017- Drs. Brittany Hayes and Ling Ren
- Measuring the effects of correctional officer stress on the well-being of the officer and the prison workplace and developing a practical index of officer stress for use by correctional agencies. PI: Dr. John Hepburn; Texas Site Coordinator: Dr. Melinda Tasca; Texas Site Co-Coordinator: Dr. H. Daniel Butler. Funded by the National Institute of Justice (Award No. 2014-IJCX-0026). SHSU Subcontract: \$127,194.

SERVICES

- Panel Chair in the March 2017 ACJS conference in Kansas City, Missouri (Panel title: "Victimization and Offending: Exploring the Roles of Control and Financial Well-Being)

- 70+ hours of community service at the Capitol Area Food Bank in Austin, Texas
- Worked in teams to distribute food and household items to thousands of Central Texas families in need
- 50+ hours of community service with Sam Houston State University:
- Archived information and organized documents as a team for the Graduate Studies Office
- Facilitated the building and running of the Spivey Honors College Haunted House, with all proceeds going to the SAAFE House in Huntsville, October 2014
- 15 hours of working both along Lady Bird Lake and in an Austin, TX area park
- -Worked with a team and improved the cleanliness and quality of those areas for others to enjoy

PROFESSIONAL AFFILIATIONS

- Academy of Criminal Justice Sciences, Student Member, Fall 2016-present
- American Society of Criminology, Student Member, Spring 2017-present
- Criminal Justice Graduate Student Organization Member, Fall 2015-present
- Elliot T. Bowers Honors College, 4 years (2011-2015)
- Golden Key Organization Member, Fall 2014-present
- Hall Council Treasurer and Member at Sam Houston State University, 2 years