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**Self-Control and Youth Victimization in Saudi Arabia:
A Test of the Generality Thesis**

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by

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ABSTRACT

Based on Gottfredson and Hirschi's (1990) general theory of crime, research has shown that low self-control is a consistent and significant predictor of criminal behavior, with general effects across diverse contexts and populations. Starting with the path-breaking work of Schreck (1999), this perspective has been used to explain not only criminal involvement but also crime victimization. Research for two decades has revealed that low self-control has general effects on victimization across both domestic and international contexts. Extant international studies of the theory, however, have been undertaken in nations similar in culture and economy to the United States. To address this limitation, the current project tests the generality thesis of low self-control in the notoriously private and under-studied country of Saudi Arabia. Because its culture, values, and social structure vary greatly from those of the United States, demonstrating significant effects of low self-control in Saudi Arabia would speak strongly to the general effects of low self-control, regardless of social context.

Notably, beyond the low self-control perspective, lifestyle-routine activity theory (L-RAT) has demonstrated significant predictive ability in explaining victimization. Given L-RAT's prominence, the current project also examines the effects of L-RAT measures on the victimization experiences of Saudi youths. These analyses thus assess the robustness of low self-control as a source of victimization while controlling for respondents' lifestyles.

The data for this study are drawn from a secondary dataset from a collaborative study by American and Saudi scholars. The data were collected in Jeddah, Saudi Arabia, which is a city of 3 million residents. The sample includes 500 males and 500 females in grades 10th through 12th, who were surveyed across eight different schools. The survey collected responses on a range of behaviors and experiences, from delinquent involvement to types of victimization.

Linear and logistic regression were used to estimate the effects on youth victimization of low self-control and L-RAT variable (i.e., delinquent involvement, peer delinquency, and parental guardianship).

General effects of low self-control were found across all estimations in this project, indicating that victimization is driven by individual characteristics common to all people, regardless of social context. General effects of certain L-RAT measures were also found. Specifically, delinquent peers was a significant predictor of victimization across all estimations, which suggests that the victim-offender overlap may exist across social contexts. Additionally, an examination of gender differences in the sample suggests that female lifestyles are more influential on victimization experiences than are male lifestyles.

Findings from this project support the generality of the effects of both low self-control and L-RAT variables, indicating that a marrying of the two theories may be beneficial to a more comprehensive understanding victimization experiences. These findings hold policy implications for Saudi Arabia, particularly in regards to building high self-control in young Saudis. Future research implications include a better understanding of the underlying mechanisms of the low self-control/victimization link as well as consideration and refinement of L-RAT measures.

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Chapter 1

LOW SELF-CONTROL AS A THEORY OF VICTIMIZATION

In 1990, Gottfredson and Hirschi (1990) published their controversial criminological classic, *A General Theory of Crime*. Challenging sociological theories, they argued that the trait or propensity of criminality, which they termed *low self-control*, predicted criminal involvement and had general effects across both groups (e.g., males and females) and contexts (e.g., in and outside the United States). They also proposed that low self-control had another general effect: higher involvement in behaviors “analogous” to crime—that is, to acts that reflect, as does crime, the easy pursuit of immediate gratification with little thought given to long-term consequences. Such analogous behaviors might include the failure to do school homework, substance use, unprotected sex, driving accidents where no seat belts were worn, poor diet, and ill health. Although their general theory has been subjected to close scrutiny and extensive criticism (see, e.g., Goode, 2008), the empirical literature has been largely supportive of the deleterious general effects of low self-control (see, e.g., Hay & Meldrum, 2017; Pratt & Cullen, 2000; Vazsonyi, Mikuška, & Kelley, 2017).

Less than a decade later, Christopher Schreck (1999) advanced Gottfredson and Hirschi’s theory in a new way, arguing that it might be applied not only as a theory of crime but also as a *theory of victimization*. At the time, the major victimization paradigm, called the life-style/routine activities theory (or L-RAT), contended that individuals were victimized if they pursued “risky” lifestyles that put them in contact with motivated offenders in the absence of capable guardians. Schreck (1999) argued, however, that low self-control influences the choices individuals make and thus the factors that might lead to their victimization. As this literature has

evolved, a central empirical issue is whether low self-control has direct effects on victimization or whether its effects are mediated by risky lifestyles or routines that those with low self-control are more likely to pursue. In general, the empirical research supports a link between low self-control and victimization (Pratt, Turanovic, Fox, & Wright, 2014).

A number of studies have been undertaken on low self-control and victimization, including of youths (Pratt et al., 2014). Many of these have used samples of junior high school and high school students who self-report their victimization inside and outside school. The victimization has included criminal acts and bullying. These studies have been conducted in both United States and international samples. A key issue of this research has been to assess the *generality thesis*. This proposition maintains that, as is the case with crime and analogous acts, low self-control increases all types of victimization for groups of people across all social contexts (see, e.g., Deryol, Wilcox, & Dolu, 2017; Kulig, Pratt, Cullen, Chouhy, & Unnever, 2017).

In this context, this dissertation proposes to test the generality thesis in a social context that has been infrequently studied by Western scholars: Saudi Arabia. The current study attempts to contribute to the existing literature in three ways. First, as noted, the study will draw on youths ages 17 to 23 who live in a conservative Middle Eastern Society, which includes a strong religious orientation and the substantial social separation of males and females. The analysis thus will examine potential gender differences in sources of victimization. Second, the data set includes measures of both criminal victimization and bullying victimization. Third, because the data set also contains risky lifestyle measures, it is possible to assess whether low self-control has an independent effect on victimization and, if so, whether this relationship is mediated by participation in risky and conventional lifestyles.

As prelude to the data analysis, this chapter is divided into six sections. The first section explores the extent to which youth victimization constitutes a problem. Statistics will be presented on both criminal victimization and bullying victimization, and the discussion will rely on studies from within and outside the United States. At issue is the whether youth victimization is a problem of international scope (Haner & Lee, 2017). The second section reviews the origins of Gottfredson and Hirschi's (1990) focus on low self-control as a *theory of crime*. This discussion leads into the third section where Schreck's (1999) extension of low self-control as a *theory of victimization* is presented and assessed. In the fourth section, the major competing theory of victimization—L-RAT or the lifestyle/routine activities theory—is reviewed. Special attention is paid to the debate over whether low self-control has a direct effect on victimization or whether this effect is mediated by involvement in risky lifestyles/routine activities. The fifth section explores the social context from which the data are drawn—youths in Saudi Arabia. The integral role of religion in social life and how this affects gender relationships are examined. Finally, the sixth section builds on the previous sections to outline the research strategy for the dissertation and, in particular, for assessing the generality thesis of self-control and victimization.

YOUTH VICTIMIZATION

Although national victimization studies exist, most of the detailed information on youth victimization has been collected through surveys of junior high and high school students. Many of these studies have included self-report delinquency scales and measures of variables at the core of prominent criminological theories. Given the rising attention to bullying, these surveys have asked not only whether respondents engage in bullying, but also whether they have experienced this form of victimization. Some existing studies have sought to measure victimization experiences in general, whereas as others have inquired about victimization that

occur within the school or outside the school (see, e.g., Deryol et al., 2017; Kulig et al., 2017). Below, this research is reviewed in two sections—one focusing on victimization generally and the other focusing specifically on bullying victimization.

Extent of Victimization

United States Victimization. Within the United States, several methods for obtaining youth victimization statistics have been developed. Information on crimes against youth is most commonly collected through some type of self-report survey, such as the National Crime Victimization Survey (NCVS) from the Bureau of Justice Statistics or the National Survey of Children's Exposure to Violence (NatSCEV). The NCVS is a national, annual survey that collects self-reported information on victimization experiences from individuals 12 years and older. The Bureau of Justice Statistics makes available the School Crime Supplement in addition to the primary NCVS, which provides greater depth to youth victimizations in a school setting. The second iteration of the NatSCEV (NatSCEV II) focused exclusively on the victimization experiences of children. The NatSCEV II was administered as a phone interview in 2011 to 4,053 children and youth between the ages of 1 month to 17 years. The NatSCEV II collected data on childhood exposure to violence, crime, and abuse victimizations.

Surveys such as the NCVS and the NatSCEV demonstrate that the victimization of youth is pervasive, with this group of individuals victimized at a high level. Youth victimization can include maltreatment, violent victimization, property victimization, and exposure to acts of violence. The first type of victimization, maltreatment, is a broad category that includes incidents of domestic abuse and violence that a child may experience at the hands of a parent or caretaker. Specifically, maltreatment covers (1) cases of neglect, (2) physical, psychological, or sexual abuse, and (3) crimes committed against youth. Nearly 42% of children ages 14 to 17

have experienced some type of maltreatment in their home (Finkelhor et al., 2011). The most prevalent type of maltreatment for a child to experience in 2010 was neglect, with 62% of children who had been maltreated reporting such abuse. In the same year, 14% were physically abused, and 6% experienced psychological maltreatment (Finkelhor et al., 2011).

While youth spend a significant amount of time with their parents and caretakers, they spend an ever-growing amount of time outside the home and with their peers as they age. These routine activities expose young people to an even wider range of crimes, such as violent or property victimization. For example, 41% of youth under age 17 reported that they were physically assaulted in 2010 (Finkelhor et al., 2011). More currently, the NCVS reported that 31% of youth 12-17 years old experienced violent crime in 2015 (Truman & Morgan, 2016). This percentage is higher than for any other age group, with the next most violently victimized age range (25 to 34-year-olds) reporting 1.5% less violent victimization than the youth in the survey (Truman & Morgan, 2016). Not surprisingly, older youth report higher percentages of violent victimization, with nearly 70% of 14-17-year-olds indicating they had been assaulted and 27% reported being sexually victimized at some point during their youth (Finkelhor et al., 2011).

Although these percentages appear high, the rate of violent crime against youth has been in a downward trend for several years (White & Lauritsen, 2012). This trend is true for both males and females, with the rate of victimization falling from 79.4 per 1,000 to 14.3 per 1,000 for males and from 43.6 per 1,000 to 13.7 per 1,000 for females between 1994 and 2010 (White & Lauritsen, 2012). These decreases in violent victimization include rape and sexual assault, robbery, and aggravated assault, and they align with similar declines in victimizations in adult populations.

Youth report lower rates of property victimization than violent victimization, although the numbers are still high. Many scholars note that property victimization of youth is often overlooked, despite the fact that youth experience property victimizations at a much higher rate than do adults (Finkelhor and Ormrod, 2000). In 2010, over 56% of youth ages 14 to 17 reported experiencing a property crime at some point in their life (Finkelhor et al., 2011). Property victimizations include larceny, burglary, robbery, and vandalism. The majority of property crimes (54%) occur at school (Finkelhor and Ormrod, 2000).

Along with direct victimization, youth can also be victimized indirectly. Several surveys have studied the extent to which youth have been exposed to criminal acts, whether at home, within their community, or at school. This research suggests that the more a youth is exposed to violence, the more risk factors that she or he will develop. Such risk factors include higher levels of hostility in both males and females and greater levels of depression, particularly in females (Durant et al., 2000; Finkelhor et al., 2009; Moses, 1999)—all of which can in turn raise future victimization potential. In 1995, almost 40% of youth in a sample of 4,023 children ages 12 to 17 were witness to some type of violence in their lifetime (Kilpatrick, Saunders, & Smith, 2003). In 2010, 22.4% of children reported witnessing an act of violence at home, at school, or within their community within the previous year. In the same year, the percentage of youth exposed to violence jumped to almost 40% when the respondents were asked about exposure over their lifetime, which matched exposure statistics collected 15 years prior to this time (Finkelhor et al., 2011). While direct violent victimization number may have decreased over time, it appears that exposure to violence has remained consistent over the years.

International Victimization. Internationally, there are gaps in knowledge of youth victimization experiences. Numerous studies and surveys have been generated domestically to

measure youth victimization, and what exists of international research confirms that the problem of youth victimization is not unique to the United States but is found across the globe. Although this literature is diverse and of varying quality, it nonetheless provides insights into the pervasive nature of this problem. Key studies in this regard merit discussion.

Perhaps the most systematic assessment of youth victimization has been provided by the International Self-Reported Delinquency Study (ISRD). The first International Self-Reported Delinquency Study (ISRD-1) was administered in 1988 in 13 countries and gathered delinquency and victimization data from youth aged 12 to 15 (Enzmann, Marshall, Killias, Junger-Tas, Steketee, Gruszczynska, 2010). The second iteration of the study, the ISRD-2, was expanded to include 31 countries and 63 cities, and it surveyed a total of 43,968 respondents (Junger-Tas et al., 2010). The ISRD-2 provides invaluable comparison of victimization data across the included countries; however, there are limitations to the data. One of these is the overrepresentation of Europe and North America in the survey, with only a handful of countries outside of those regions included in the most recent version of the ISRD. Such countries include Aruba, the Netherlands Antilles (pre-dissolution), Suriname, and Venezuela (Enzmann et al., 2010). Despite its limitations, the ISRD-2 has provided insight into certain global victimization trends. For example, youth assault rates tend to be higher in Latin American and former socialist countries such as Russia (7.9%), the Netherlands Antilles (7.7%), Estonia (6.8%), and Suriname (6.2%) (Enzmann et al., 2010).

The International Crime Victims Survey (ICVS) is another comprehensive measure of victimization across many different countries. The ICVS was created by the United Nations and was first administered in 1989, and then again in 1992, 1996, 2000, and 2004/05. Included in the 2004/05 ICVS (the ICVS-5) are data from 30 countries and 33 main cities from both developed

and developing countries (van Dijk, van Kesteren, & Smit, 2007). The ICVS-5 not only is useful in comparing crime and victimization rates across the included countries, but also it provides data on countries not included in the ISRD-2. Asian countries encompassed in the ICVS-5 include Hong Kong, Japan, and Cambodia. African countries within the study are Mozambique and the Republic of South Africa, and Brazil, Peru, and Mexico give greater insight into South and North America (van Dijk et al., 2007). Although the ICVS-5 incorporates a wider range of countries, the survey does not focus specifically on youth experiences as children below 16 years old are excluded from the survey (van Dijk et al., 2007). However, the ICVS-5 is often examined in conjunction with true delinquency surveys and can aid in understanding youth victimization in an international context.

The results of the ICVS-5 and the ISRD-2 do not perfectly align, however, because countries reporting highest or lowest victimization rates in one study may not necessarily fall into the same ranking in the other study. For example, according to the ISRD-2, Hungary, Portugal, and Poland report the highest rates for robbery victimization (Enzmann et al., 2010). According to the ICVS-5, the countries reporting highest rates for robbery victimization are Poland, Estonia, and Ireland (Enzmann et al., 2010). The overlap is diminished further for reported assault. Estonia, Poland, and Germany report highest rates of assault in the ISRD-2, while the United States and Ireland claim top positions in the ICVS-5 (Enzmann et al., 2010). Differences in outcomes between ISRD-2 and ICVS-5 could be due to the difference in age of respondents (12-15 years for ISRD, 16 years and older for ICVS) as well as to differences in measurement. The ISRD-2 measured one-year prevalence rates, whereas the ICVS measured 5-year prevalence rates (Enzmann et al., 2010).

The ICVS and ISRD provide valuable data on youth victimization across many countries. From these studies, two main points can be identified. First, youth victimization is as problematic in other countries as it is in the United States. Thus, victimization of young people is a global issue that needs to be examined and addressed. Second, while the ICVS and ISRD each include many countries in their analyses, there are regions of the world that have yet to be studied systematically and about which victimization data are lacking. Notably, this dissertation will help to fill this void in the existing research on youth victimization. The current research on youth victimization is heavily concentrated on the United States and European countries and is lacking in other regions of the world. While the studies examined here cover a broad range of countries and cultures, neither the ICVS nor the ISRD have investigated victimization in Middle Eastern countries. In fact, minimal crime research has been conducted in the Middle Eastern region in any capacity. This dissertation focuses on victimization experiences of Saudi Arabian youth, and it provides a unique opportunity to examine a population about whose crime experiences are little known. Saudi Arabian society deviates substantially from the Western cultures that populate current victimization studies, and research conducted in this location has the capability to either substantiate what is already known of youth victimization experiences or to change the way youth victimization is understood.

While the current research on youth victimization is limited internationally, the literature on youth bullying and youth victimization within schools is much more comprehensive both on a domestic and an international scale. The next section will address the current body of research on youth victimization within schools, and the literature on bullying and school victimization within the United States will be reviewed. Differences between youth victimization inside and outside of the school environment will be examined, along with current trends in bullying and

school victimization pulled from a variety of school victimization studies. Following the summary of bullying in the United States will be an overview of school victimization internationally.

Extent of Bullying Victimization

Bullying Victimization in the United States. The literature on bullying victimization has grown as a separate entity from what may be considered traditional youth victimization. High-profile incidents of school shootings and suicides resulting from aggressive bullying have demonstrated the importance of examining the issue of bullying, and these events have elicited attention to this atopic from the media, the American public, and victimization researchers. Bullying is nuanced and separate in many ways from traditional victimization, and so the correlates of bullying and bullying victimization have been isolated and examined in narrow focus. The result is a rather vast body of research within the United States attuned to bullies and their victims.

Youth victimization in the school environment is examined in two general ways. First, there is school victimization, which includes crimes such as theft and assault that may occur in any environment but are specifically examined within a school setting. Second is bullying victimization. The definition of bullying may vary slightly depending on the instrument used to measure the victimization. In general, bullying victimization covers a variety of behaviors that include making fun of another student, name-calling and insulting another student, spreading rumors, threatening harm, coercing another student into behavior he or she does not want to engage in, purposefully excluding a student from activities, and the destruction of someone's property (Lessne & Yanez, 2016; Musu-Gillette et al., 2017). Physical harm within the

definition of bullying may include pushing, shoving, tripping, or spitting on another student (Musu-Gillette et al., 2017).

There are numerous resources for measuring and studying school victimization and bullying. Four influential resources are the Youth Risk Behavior Survey, the Supplemental Crime Survey to the NCVS, the School Survey on Crime and Safety, and longitudinal studies from the National Center for Education Statistics. The first and largest of these sources of information is the Youth Risk Behavior Survey (YRBS). The Youth Risk Behavior Survey is a national survey conducted by the Centers of Disease Control and Prevention (Kann et al., 2016). While the YRBS is not explicitly a survey on school victimization and bullying experiences, it does tap into certain health risk and protective factors. Such factors include frequency of smoking, drinking, drug use, diet, and physical activity of the target population (Kann et al., 2016). The YRBS focuses on students in grades 9-12 who are enrolled in either public or private schools at the time of the survey. The YRBS was first administered in 1993 and has been carried out biennially through 2015. More than 15,000 high school students were included in the most recent (2015) national YRBS, encompassing 37 states and 19 urban school districts (Kann et al., 2016).

A second vital resource for measuring and understanding youth behavior is the School Crime Supplement (SCS) to the National Crime Victimization Survey, co-designed by the National Center for Education Statistics (NCES) and Bureau of Justice Statistics (BJS). Unlike the Youth Risk Behavior Survey, the SCS focuses on youth victimization, crime, and safety at school. The SCS includes questions regarding alcohol and drug availability; fighting, bullying, and hate-related behaviors; fear and avoidance behaviors; gun and weapon carrying; and gangs at school (Lessne and Yanez, 2016). The SCS targets students aged 12-18 who are enrolled in

public and private schools. The survey was first conducted in 1989. The SCS was administered again in 1995 and 1999 and has been conducted biennially through 2015 since. The SCS has a sample size of approximately 6,500 students (Lessne and Yanez, 2016).

A third instrument for understanding youth victimization within schools is the School Survey on Crime and Safety (SSOCS). The SSOCS is managed by the National Center for Education Statistics for the U.S. Department of Education. Whereas the YRBS and the SCS collect data directly from students, the SSOCS surveys principals and administrators of public primary, middle, and high schools to learn more about crime and safety within their respective institution (Neiman et al., 2015). The SSOCS is administered biennially in the spring to over 3,000 U.S. schools. Principals and administrators answer questions on a variety of topics from frequency of crime and violence at school to frequency of hate and/or gang crimes (Neiman et al., 2015).

Two studies from the National Center for Education Statistics are noteworthy: the National Education Longitudinal Study (NELS) of 1998 and the Education Longitudinal Study (ELS) of 2002. Both the NELS and ELS followed a cohort of youth for eight years out of high school. The NELS surveyed its cohort for the first time in 1988 when the youths were in 8th grade. The cohort was surveyed four additional times, with the last survey occurring in 2000 when the youths were eight years out of high school. The ELS began more recently in 2002 with a cohort of 10th grade students, with the most recent survey of the cohort occurring in 2012—again when the respondents were eight years out of high school. Both surveys tap into a range of academic and workforce-related behaviors, including a number of victimization measures such as “someone threatened to hurt student at school” and “someone hit student.” Although not exclusively focused on victimization, the NELS and ELS data have been used to demonstrate a number of victimization experiences. For example, one study found that as students’

socioeconomic status increased, their likelihood of being bullied at school also increased (Peguero, 2008). Another study found that victimization and a lack of feeling safe at school significantly increased the likelihood of males and females dropping out (Peguero, Zavala, Shekarkhar, and Walker-Pickett, 2018).

From the four surveys previously described, as well as from other sources of youth victimization data, a general picture of the scope and nature of school victimization and bullying can be drawn. For example, it appears there is a higher rate of nonfatal youth victimization within than outside the school setting. In 2016, the rate of nonfatal victimization for students aged 12-18 was 24 per 1,000 for youth who were away from school, while the rate was 29 per 1,000 for youth at school (Musu-Gillette et al., 2017). Victimization varies not only by immediate setting but also according to the population of a given area. Both at school and away from school, victimization of students is higher in urban areas (37 per 1,000 at school; 30 per 1,000 away from school) than in suburban areas (24 per 1,000 at school; 17 per 1,000 away from school). Outside of the school setting, youths in rural areas experience the highest rate of victimization at 38 victimizations per 1,000 students (Musu-Gillette et al., 2017).

The prevalence of reported bullying victimization differs somewhat from reported school victimization. In 2011, about 20% of high school students reported having been bullied at school (Musu-Gillette et al., 2017). Bullying tends to be higher for younger students (primary and middle school) and then tapers off as students reach higher grade levels (Musu-Gillette et al., 2017). In 2015, 15% of 4th graders reported being bullied at least once a month, while only 7% of 8th graders indicated this level of victimization (Musu-Gillette et al., 2017). Despite the decreased rates of bullying victimization as students age, the effects of bullying on young students can have both immediate and long-term detrimental academic consequences. For

example, a 2014 survey of third graders found that those students who reported that they were frequently bullied scored lower in reading, mathematics, and science than did their peers who reported they were rarely or never victimized (Musu-Gillette et al., 2017). The same survey indicated that 15% of third graders were frequently teased, made fun of, or called names; 22% were the subject of malicious rumors; 14% experienced physical bullying; and 15% were often ostracized during play (Musu-Gillette et al., 2017). These statistics suggest that student bullying is an important dimension of youth victimization.

Bullying Victimization in International Contexts. As previously indicated, the international research on bullying and school victimization is much more comprehensive than that of overall youth victimization. Numerous cross-national studies demonstrate that school victimization is problematic not only within the United States but also in countries across the globe (Benbenishty & Astor, 2012; Denmark, Gielen, Krauss, Midlarsky, & Wesner, 2005; Due et al., 2005; Due et al., 2009; Smith et al., 1999). The United Nations Educational, Scientific, and Cultural Organization (UNESCO) reports that nearly 246 million children worldwide experience some type of school or bullying victimization every year (UNESCO, 2017). The number of children and youth exposed to school victimization is substantiated by a significant amount of research. In their comprehensive review of international bullying and school victimization, Haner and Lee (2017) recognize ten multi-national surveys. Several of these surveys include the Health Behavior in School Aged Children (HBSC), the Global School Based Student Health Survey (GSBHS), the International Survey of Children's Well-Being (ISCWeb), the Third Regional Comparative and Explanatory Study (TERCE) from UNESCO, and the Trends in International Mathematics and Science Study (TIMSS). Each study covers a variety of health and/or victimization topics, and they have included anywhere from 15 to 94 countries.

The surveys above provide insight into the nature of international school violence. For example, a study of 11 European countries reported anywhere from a quarter to half of fourth-graders experienced some type of physical assault at school, while another 12% to 32% reported theft victimization (Ammermüller, 2007). Deryol, Wilcox, and Dolu (2017) found that, specifically in Turkish schools, 42% of students reported having been involved in a physical fight during the school year. The surveys dispense a general idea of the scope of school violence, although there are nuances across regions that need to be explored. For example, boys are most often the victims of physical school violence in the United States as well as in similar industrialized countries (UNICEF, 2014; Kann et al., 2016; Owens, Daly, & Slee, 2005). Alternatively, a 2012 survey in South Africa found that both boys and girls reported the same rate (6%) at which they were physically attacked or hurt at school in the past year (UNESCO, 2017). The statistics from South Africa speak to the subtle differences between regions that are detrimental to fully understanding school violence.

The occurrence of bullying is as widespread as school violence. In the 2016 UNICEF opinion poll of 20 countries, over 65% of 100,000 respondents indicated being the target of bullying (Sotomayor, 2016). The GSBHS found bullying victimization to be particularly high in African, Oceanic, and Middle Eastern countries, with prevalence rates anywhere from 55% (in Palestine) to 74% (in Samoa) (Richardson & Hiu, 2016). TERCE, a survey carried out by UNESCO, reported 41% of 196,000 students in Latin American countries experienced bullying victimization (Richardson & Hiu, 2016). Similar to findings from the United States, bullying tends to decline as students age (Rees & Main, 2015; Currie et al., 2012; Fleming & Jacopsen, 2009). The TIMMS reported that, on average, 16% of fourth graders and 8% of eighth graders experienced bullying on a monthly or weekly basis (Musu-Gillette, et al., 2017). Average

monthly bullying victimization rates for youth in the United States are lower, at 15% for fourth graders and 7% for eighth graders (Musu-Gillette, et al., 2017). These figures demonstrate that, as prevalent the bullying issue appears to be in the United States, it is even more so outside of the U.S.

The negative effects of bullying have been demonstrated in the United States, and international surveys also indicate detrimental health and mental consequences of bullying victimization. Youth who report being bullied are significantly more likely to claim feelings of sadness, hopelessness, and loneliness (Fleming and Jacopsen, 2009). Bullied youth are more likely to suffer from insomnia and display suicidal tendencies, as well as to engage in riskier behaviors such as use of alcohol, tobacco, and other drugs (Fleming and Jacopsen, 2009). In terms of academic success, students exposed to school violence and bullying are more likely than unexposed peers to miss classes, engage in truancy, earn lower grades, and drop out of school entirely (UNESCO, 2017). A 2010 study conducted in the United Kingdom exemplified these negative effects of bullying. Ellery, Kassam, and Bazan (2010) discovered that bullied teens were twice as likely to be without education. In addition, the same uneducated individuals were three times more likely to report feelings of depression and five times more likely to engage in criminal activity (Ellery et al., 2010).

Thus, the experiences of school violence and bullying are not unique to the United States. Extensive research has demonstrated that both types of victimization occur to varying degrees in nations throughout the world. The negative effects appear pervasive across regions. Still, gaps in this knowledge exist. Most notably, as with traditional youth victimization, little is known about bullying and school victimization in Saudi Arabia. The lack of research in Saudi Arabia highlights the importance of this dissertation because there are potential differences in the

population that need to be recognized and addressed. The sample of this study will further the understanding of youth bullying and school violence in an area of the world where very little is currently known on the topics, and it will add to the overall body of knowledge of youth victimization on a global scale.

The explanations for juvenile victimization vary. Routine activity theory, delinquent peers, and exposure to violence all have research demonstrating their correlation to youth violence and victimization. However, self-control theory has emerged as a major theoretical paradigm in American criminology and is being tested as well on an international level. The following section will detail Gottfredson and Hirschi's self-control theory of crime—also known as the “general theory”—and its progressive use from an explanation of crime to an explanation of victimization. This discussion will lead into an examination of current tests of the theory, both domestically and internationally.

SELF-CONTROL AND CRIME

The Concept of Low Self-Control

In 1990, Gottfredson and Hirschi published their now-classic book, *A General Theory of Crime*. In so doing, they changed the way many criminologists interpreted the causes of criminal behavior. In fact, nearly thirty years after the introduction of the theory, it continues to be tested, to be examined, and to remain relevant in current criminological theory. The primary thrust of Gottfredson and Hirschi's general theory of crime is the concept of self-control—a factor that they propose is the predominant cause of crime, deviance, and social failure.

According to Gottfredson and Hirsch (1990), self-control is an individual, internal control that affects a person's capacity to resist their easy, immediate gratifications offered by crime and

“analogous” behaviors. Behaviors are “analogous” to crime because they also provide a means to secure gratification (e.g., substance abuse, speeding). Individuals with high self-control are able to resist the temptations of criminal opportunity, while individuals with low self-control succumb to deviant behavior much more easily. Gottfredson and Hirschi further assert that opportunities to commit crime are available to everyone, but only people with low self-control lack the restraint necessary to abstain from criminal acts. Therefore, crime results as an interaction between the low self-control of the individual and the presence of a criminal opportunity. Gottfredson and Hirschi (1990) stress that the motivation to commit a criminal offense does not vary among individuals or, in the least, that all humans, by nature, possesses sufficient desire for easy, immediate gratification that no special motivation is needed to explain the desire to use force or fraud to obtain a pleasing outcome. Rather, it is the level of internal adherence to social norms and values (i.e. self-control) that dictates whether or not a crime will be carried out. It is important to note the low self-control does not necessitate the commission of a crime. Low self-control and a criminal opportunity must both be present for a crime to occur. However, because crime is simple to commit and requires no special skill or social learning, crime opportunities are ubiquitous. Accordingly it is variation in the level of self-control that is the main determinant of involvement in crime and analogous behaviors.

There are two propositions that are core the general theory of crime. The first claim is that the level of self-control a person possesses is established early in childhood. According to Gottfredson and Hirschi (1990), parents have until a child is between eight and ten years old before his or her level of self-control is determined. Once their offspring reaches 8-10 years of age, the child’s level of self-control has been established and will remain stable thereafter. What a child’s parents do, or do not do during the child’s early years will determine the level of self-

control that the child establishes. Parents may dictate levels of self-control in their children in three ways: (1) they monitor their children's behavior, (2) they recognize antisocial or deviant behavior, and (3) they correct the antisocial and deviant behavior they see (Hirschi and Gottfredson, 2001). Alternatively, parents that ignore their children, do not recognize deviant or antisocial behavior, or do not correct such behavior will foster low levels of self-control in their children.

The second core proposition of self-control theory is that, once a child's level of self-control has been established, it remains relatively stable throughout the individual's life into adulthood. Not only does self-control remain rather impervious to change, but also it can have a detrimental impact on an individual's success in school, at work, and in personal relationships such as marriage. Thus, those with low self-control are not only more likely to commit crime and analogous behavior, but they are also more likely to jeopardize any lasting success later in life (Gottfredson and Hirschi, 1990). That is, they will experience social failure.

The stability characteristic of self-control is not to be mistaken for completely static levels of self-control within an individual. It is widely understood in criminological theory that as individuals age, their criminal behavior declines (with the exception of white-collar offenses). Gottfredson and Hirschi address this issue in their original work and assert that, assuming the majority of individuals do not develop lower levels of self-control as they age and that socialization never ceases, "the proportion of the population in the potential offender pool should tend to decline as cohorts age" (Gottfredson and Hirschi, 1990, p. 107). On the whole, levels of self-control should remain consistent within society. Even as one age group decreases in criminal behavior, a younger cohort will replace the declining levels of crime and analogous behavior.

Gottfredson and Hirschi have indicated that self-control is a unitary, underlying propensity. There are distinct traits that can be separated and identified within self-control, however, and individuals with low self-control display such characteristics. If a child lacks stability and discipline in the home, he or she “will tend to be impulsive, insensitive, physical (as opposed to mental), risk-taking, short-sighted, and nonverbal” (Gottfredson and Hirschi, 1990; 90). Individuals with low self-control tend to live in the moment and respond to their environment based off of their immediate desires. They prefer simple, instantly satisfying tasks over complex ones, and those simpler tasks tend to be laced with excitement and risk. In their pursuit of such activities, individuals with low self-control will overlook the suffering and needs of those around them. They will also respond quickly to frustration, most often in a physical way as opposed to a cognitive or verbal one (Gottfredson and Hirschi, 1990).

These personality traits are reflective of Gottfredson and Hirschi’s perspective on crime. According to Gottfredson and Hirschi, crime is easy to commit, involves little planning, requires minimal physical skills, and provides immediate gratification. It follows that individuals would display traits such as impulsivity and short-sightedness. Because Gottfredson and Hirschi’s definition of self-control and definition of crime appear to be one and the same, the general theory of crime has been criticized as being tautological (Akers, 1991, 1997). Pratt and Cullen (2000) argue tautology in empirical tests will be avoided given valid, independent measures of self-control and crime are used. In the next section, consideration will be given to research that does exactly as Pratt and Cullen suggested as the theory is tested.

Effect of Low Self-Control on Crime

Several key components to self-control theory have been under intense scrutiny since its inception in 1990. The theory has been criticized for not clearly operationalizing self-control, for

providing an ambiguous connection between criminal and analogous behaviors, for being tautological, and for dismissing the use of longitudinal studies. Hundreds of empirical tests of self-control theory have focused on these primary concerns with varying levels of support for Gottfredson and Hirschi's (1990) theory. The sheer number of tests makes the overall status of the theory difficult to assess, other than indicating its popularity in criminological discourse. Fortunately, several meta-analyses have changed the way criminologists understand the vast body of research on self-control theory. In particular, the status of self-control is best summarized in two important meta-analyses: one by Pratt and Cullen (2000) and one by Vazsonyi, Mikuska, and Kelley (2017).

In their meta-analysis, Pratt and Cullen (2000) examined 21 published, empirical studies that included 17 independent data sets. These studies and data sets yielded 126 effect size estimates, from which Pratt and Cullen (2000) calculated their own estimates. Two points of interest guided Pratt and Cullen's analysis. First, they calculated the overall effect of self-control on crime. Second, they assessed the variability of effects for self-control on crime under multiple methodological conditions. In the first endeavor, Pratt and Cullen (2000) found self-control to be a strong predictor of crime and analogous behaviors. In the second endeavor, Pratt and Cullen examined four broad methodological categories within self-control research. The categories included: (1) the self-control measure itself (attitudinal vs. behavioral), (2) the use of a Grasmick et al. (1993) scale, (3) model specification and research design, and (4) sample characteristics.

Gottfredson and Hirschi (1990) indicated that self-control is best measured as a unitary measure of behaviors rather than attitudes. Both behavioral and attitudinal measures of self-control exist in empirical tests of self-control, and so the two were compared in Pratt and

Cullen's meta-analysis. Pratt and Cullen (2000) found that the behavioral measures tended to have slightly larger effect sizes than attitudinal measures. The effect sizes were still similar between the behavioral and attitudinal measures, however, which suggests that the tautology argument may be discarded; self-control can be measured as attitudes that are separate from delinquent behavior and yet remain a significant predictor of crime. Further, effect sizes of the self-control variable appeared unaffected by the methodological variations used in measuring self-control. Pratt and Cullen found no significant difference in the effect size of the self-control variable in studies that used Grasmick et al.'s (1993) scale versus those that used an alternative attitudinal scale.

Gottfredson and Hirschi (1990) also indicated that crime occurs as an interaction between the low self-control of an individual and the presence of a criminal opportunity. Pratt and Cullen (2002) included an examination of this postulate within their meta-analysis, and consistent with Gottfredson and Hirschi's theory, they found the interaction between opportunity and self-control to be statistically significant. The effect size of self-control was not influenced by whether a study included a control for opportunity or for variables assessing competing criminological theories such as social learning theory (Pratt and Cullen, 2000). Also consistent with self-control theory, Pratt and Cullen (2000) found self-control to have "general" effects (p. 947). Regardless of the sample characteristics, such as whether the sample was from the community or from an offender population, self-control remained a significant predictor of crime and analogous behavior. Across each of the sample types included in the meta-analysis, self-control remained a consistent and significant predictor of crime and analogous behaviors.

Gottfredson and Hirschi (1990) proposed that longitudinal studies are unnecessary to self-control research as they will yield the same results as cross-sectional studies given that self-

control remains stable across time. Evidence from Pratt and Cullen's (2000) meta-analysis did not support this point, as they found that the effect of low self-control on crime was significantly weaker in longitudinal designs. This finding was surprising, given that the other tests of the theory aligned with self-control theory. It appeared that the effect of low self-control on crime was weaker, although this observation was based on a limited number of comparisons (Pratt and Cullen, 2000).

Pratt and Cullen's (2000) meta-analysis provided a solid foundation for understanding the empirical tests of self-control theory in the 1990s. The meta-analysis from Vazsonyi et al. (2017) explored empirical studies of self-control in the decade following Pratt and Cullen's work. With an even larger body of research at their disposal and their use of more advanced statistical techniques, Vazsonyi et al. (2017) were able to extend the foundation laid by Pratt and Cullen. Vazsonyi et al. (2017) focused on studies conducted between 2000 and 2010. Their sample included 99 studies, 87 of which reported cross-sectional data and 19 that reported longitudinal data. From these data, Vazsonyi et al. (2017) had 319 effect sizes.

Similar to Pratt and Cullen (2000), Vazsonyi et al. (2017) found substantial support for low self-control as a consistent predictor of criminal and deviant behaviors. Alternative to the earlier study, Vazsonyi et al. (2017) deviated from Pratt and Cullen's (2000) findings in two significant ways. First Vazsonyi et al. (2017) did not find the same general effects of low self-control across different sample types. After controlling for effects of other variables included in the model, studies with a larger proportion of males had weaker correlations between low self-control and deviance; studies based on younger populations tended to find stronger associations; studies based on samples from outside the United States tended to find slightly weaker associations; and finally, studies using self-report measures of self-control had weaker

associations than studies based on other modes of reporting. Second, Vazsonyi et al. (2017) failed to find significant differences in levels of self-control between cross-sectional and longitudinal studies. Both of these differences may be attributed to the greater variety and number of samples included in the meta-analysis by Vazsonyi et al. (2017).

Vazsonyi et al. (2017) further extended the research of Pratt and Cullen (2002) by including the relationship between low self-control and deviance and comparing the effects of self-control on specific manifestations of deviant behavior. For example, Vazsonyi et al. (2017) found the strongest associations between low self-control and general deviance and physical violence. They identified the weakest associations between low self-control and substance abuse as well as low self-control and academic and organizational dishonesty.

While the findings of both Pratt and Cullen (2002) and Vazsonyi et al. (2017) support self-control as a strong predictor of crime and analogous behavior, a persistent criticism of meta-analyses is that of publication bias. Both meta-analyses reviewed here included tests to address potential publication bias, from computing the “fail-safe” *Ns* in both analyses, to Vazsonyi et al. (2017) using funnel plots, a rank correlation test, and a test of the intercept to examine potential bias. Neither Pratt and Cullen nor Vazsonyi et al. found any indication of publication bias in their analyses. Vazsonyi et al. found greater effects in larger sample sizes, which is the opposite of how a publication bias would manifest itself.

The meta-analyses produced by Pratt and Cullen (2000) and Vazsonyi et al., (2017) have provided a succinct yet comprehensive summary of empirical tests of self-control to date. From these two analyses, it is apparent that self-control is a ubiquitous indicator of criminal and analogous behavior. In the following section, self-control’s predictive effects on analogous

behaviors will be examined in greater detail, and international studies of low self-control will also be discussed.

General Effects of Low Self-Control

One of the more provocative aspects of the general theory of crime is Gottfredson and Hirschi's assertion that self-control predicts not only crime, but also imprudent and analogous behaviors (Arneklev, Grasmick, Tittle, & Bursick Jr., 1993; Evans, Cullen, Burton, Dunaway, & Benson, 1997; Shaw & MacKenzie, 1991; Tremblay, Boulerice, Arseneault, & Junger Niscale, 1995; Wood, Pfefferbaum, & Arneklev, 1993). Imprudent or analogous behaviors encompass activities that, like crime, require little planning, provide immediate gratification, and are "psychologically or theoretically equivalent to crime" (Gottfredson and Hirschi, 1990, p. 92). Examples of analogous behaviors include truancy, alcohol use, smoking, gambling, risky sexual behaviors, and other similar activities.

Analogous and imprudent behaviors can include activities not generally associated with deviance. For example, Reisig and Pratt (2011) measured the effects of self-control on public flatulence, public use of profanity, and drunk dialing in a sample of college students. They found that self-control was significantly related not only to traditional criminal and analogous behaviors (such as public order offenses, alcohol and drug offenses, theft-related offenses, academic fraud, and binge drinking) but also to their unique measures of analogous behaviors (flatulence, profanity, and drunk dialing). These results lend further credence to the assertion that self-control has general effects and helps to explain many types of wayward behaviors.

The effects of self-control do not end with simple engagement in criminal and analogous behaviors. Self-control also becomes predictive of a range of life outcomes and is a determinate of social success or failure. Low self-control in particular has the ability to produce a host of

negative social consequences. Individuals with low self-control lack restraint and ability to plan for the future, thus Gottfredson and Hirschi (1990) argue that low self-control fosters failure in social institutions, activities, and personal relationships that require delayed gratification, planning, and preferences for cognitive and verbal activities. Consequently, low self-control inhibits the ability to make and keep friends and encourages individuals with low self-control to self-select into groups of other individuals with low self-control. These individuals feed off one another and further engage in criminal and analogous behaviors (Gottfredson and Hirschi, 1990, p. 158). In addition, individuals with low self-control are less successful in structured environments and tend to perform poorly in school and at work (pp.162-163). They experience more job instability than individuals with high self-control, and as a result they are less likely to hold white-collar occupations (pp. 165-191). Individuals with low self-control are also more likely to have unsuccessful interpersonal relationships and marriages (p. 166).

As demonstrated, the negative social consequences of low self-control are far-reaching and can be detrimental to the success of the individuals who possess it. Further, the negative social consequences experienced by individuals with low self-control are pervasive regardless of individual variation. Gottfredson and Hirschi (1990) assert that the effects of self-control are general, and that self-control “explains all crime, at all times” (p. 117) and is “for all intents and purposes, *the* individual level cause of crime” (p. 232, emphasis in original). According to the theory, the effects of self-control are persistent regardless of age, sex, culture, or circumstance. Tests of self-control’s sweeping effects on crime and analogous behavior corroborate Gottfredson and Hirschi’s claim of generality. Evans et al. (1997) demonstrated an empirical and significant relationship between low self-control and imprudent behavior such as smoking, having accidents, skipping work, driving fast, public urination, and drug offenses. Similarly, the

1997 Add Health data reported that middle and high school students with lower levels of self-control were more likely to engage in substance use, lie to their parents, get into fights, and engage in disorderly conduct (Bearman, Jones, & Udry, 1997). More recently, Benda (2005) found that the effects of low self-control to be significantly related to alcohol consumption and drug use. In addition, the effects found by Benda (2005) emerged even after controlling for numerous demographic and competing theoretical variables.

Each of the findings highlighted above contribute to the usefulness of self-control in explaining a variety of behaviors. Hay and Meldrum (2016) go so far as to identify self-control as “an all-purpose, multi-use tool that assists in virtually every human endeavor” (p. 75). Whether a person has low self-control or high self-control, the self-control attribute will play a vital role in the behaviors and outcomes in which the individual engages. Individuals with high self-control have an advantage in society that cannot be overstated; they are more likely to be successful in nearly every aspect of their lives, and they are overall happy people (Hay and Meldrum, 2016). From physical well-being, to healthy interpersonal relationships, and to success in work and education, individuals with high self-control are more likely to reach many of the coveted goals of mainstream society, and they tend to live a more productive life than those with low self-control.

The effects of self-control seep into many different aspects of an individual’s life. From engaging in criminal or analogous behaviors to realizing the social consequences of such behaviors, low self-control can have a range of detrimental ramifications. Tests of self-control’s generality have further supported the original assumptions of social consequences made by Gottfredson and Hirschi (1990). The studies summarized here have only investigated findings from the United States, however. For the general theory of crime to truly be general, the

relationship between self-control and crime must persist across international samples as well. In the next section, studies of self-control's general effects within international samples will be reviewed.

General Effects of Self-Control in an International Context

To live up to the reputation as a “general theory of crime,” self-control must be a demonstrated predictor of delinquent behavior across many contexts. Within the United States, low self-control has been shown time and again to be a significant factor in instigating criminal and analogous behavior. But does this relationship hold internationally? Notably, research on self-control has yielded consistent support for the theory.

It is perhaps unsurprising that in European counties similar in culture and economy to that of the United States, self-control has been found to be a significant determinant in criminal behavior. For example, Vazsonyi, Pickering, Junger, and Hessing (2001) examined the effects of low self-control in Hungary, the Netherlands, Switzerland, and the United States. In their examination of 15 to 19-year-old males and females, Vazsonyi et al. (2001) found that self-control is a consistent predictor of criminal behavior both inside the United States and without. Self-control is a significant predictor of both property and violent crime in a number of countries similar to the United States, such as Australia, Belgium, Canada, Germany, Great Britain, Switzerland, and Sweden, among others (Rebellion, Straus, & Medeiros, 2008).

A more challenging test of Gottfredson and Hirschi's theory would be to examine the impact of self-control in countries with cultures that are less similar to the United States. The opportunity for such comparison surfaced with the expansion of self-control research into Asia. Notably, numerous studies have reported that self-control is an important predictor of property and violent crime in Hong Kong (Cheung and Cheung, 2008; 2010; Rebellion, Strauss, and

Medeiros, 2008; Cheung, 2014; Weng, 2016) and China (Rebellion, Straus, and Medeiros, 2008; Lu, Yu, Ren, and Marshall, 2013). Research reveals that in Hong Kong and other areas of China, self-control is related to delinquent behavior such as truancy, theft, robbery, and fighting (Cheung and Cheung, 2008) as well as to smoking, alcohol use, and gambling (Cheung, 2014; Cheung and Cheung, 2008).

Support for Gottfredson and Hirschi's (1990) general theory is also apparent in research conducted in other Asian contexts. Thus, in a study conducted in Japan, Vazsonyi, Wittekind, Belliston, and Van Loh (2004) found that self-control was significantly related to vandalism, drug use, school misconduct, and general deviance for both males and females. Further, a cross-national comparison of self-control's effects on various types of deviance (vandalism, alcohol use, drug use, school misconduct, general deviance, theft, and assault) determined that self-control is similarly predictive in Japanese samples as it is in American samples, with the exception of alcohol use (Vazsonyi et al., 2004). Kerley, Xu, and Sirisunyaluck (2008) reported that self-control was significantly related to intimate partner abuse in Thailand. Self-control has also been found to be related to delinquency in samples of Filipino college students (Barrera et al., 2005) and in South Korean youths (Cho, 2014; Yun, Kim, and Kwon, 2016). Further, Tittle and Botchkovar (2005) discovered that self-control increased involvement in criminal behaviors—violent crime, drug crimes, and large thefts—in Russia. Each of these studies conducted outside of the United States lends credence to the assertion made by Gottfredson and Hirschi (1990) that self-control has general effects.

One study, however, presents evidence that is inconsistent with the majority of self-control literature. Chouhy, Cullen, and Unnever (2016) tested the general theory using a sample of delinquent youths drawn from the streets of impoverished neighborhoods in Uruguay. In

contrast to the majority of studies on self-control and delinquency, Chouhy, et al. (2016) found no relationship between self-control and delinquency when measures of general strain, social learning, social bonds, and labeling were also included in their analysis. Along with finding self-control to be non-significant, there are other aspects to this study that foster interest. First, the location of the study is very different from many of the existing sites for self-control research; second, the sample itself is nontraditional in terms of self-control studies. Chouhy et al. (2016) specifically sought out the slums of Uruguay from which to draw their sample. The individuals lived in impoverished neighborhoods and did not attend school regularly (i.e., are not the typical surveyed “students”). Is Uruguay so different from other cultures that self-control has no bearing on delinquency? If no relationship between self-control and delinquency can be found in one culture, it is possible that the same can be true in another society.

Two more studies warrant attention. They are directly related to the research at hand, yet they yield conflicting results. Both Sacarellos et al. (2016) and Beaver et al. (2016) examined self-control in Saudi Arabian samples. Sacarellos et al. (2016) found self-control to be significantly related to a host of negative life outcomes, from poor attachment to criminal propensities, in a sample of Saudi Arabian youth. Alternatively, Beaver et al. (2016) found no significant relationship between low self-control and cigarette and alcohol use in their sample. Self-control was significantly related to illegal drug use in Beaver et al.’s (2016) study, but the relationship was in the opposite direction as would be expected. For example, the lower the individual’s self-control, the less likely the respondent was to use illegal drugs. The conflicting findings from these studies from Saudi Arabia, coupled with the results from Chouhy et al. (2016), indicate that more research is needed to understand the effects of self-control in many types of samples. Such research also will be instrumental in establishing the extent to which

Gottfredson and Hirschi's self-control perspective is a true general theory or is specified by contexts dissimilar to the United States and advanced Western societies.

SELF-CONTROL AND VICTIMIZATION

Although self-control was invented as a theory of criminal and wayward behavior, it has increasingly been used to explain victimization. The central thesis of this research is to argue that low self-control increases the risk of being a victim of crime and other forms of victimization (e.g., bullying). This section begins by discussing the work of Schreck (1999) who was the first to propose that self-control could be used as a theory of victimization. Over the course of nearly twenty years, a wealth of investigations assessing the impact of self-control on victimization has appeared. The second section examines the meta-analysis of Pratt et al. (2014), which has summarized the empirical status of this body of work. Finally, given the focus of this dissertation, the third section reviews studies exploring the impact of studies of self-control and victimization among youths in international contexts. Again, the goal is to weigh the generality of self-control theory as an explanation of victimization.

Schreck's Extension

In the late 1970s through the early 1990s, researchers showed that offenders and victims often share characteristics. For example, perpetrators and those they victimize are both disproportionately male, young, and members of the same racial and ethnic minority groups (Gottfredson, 1986; Hindelang, 1976; Hindelang, Gottfredson and Garofalo, 1978; Laub, 1990). More current research continues to highlight the overlap in qualities between pools of offenders and victims (Broidy et al., 2006; Mustaine and Tewksbury, 2000; Schreck, Wright, and Miller, 2002). Just as noteworthy as the common characteristics of criminals and offenders is the

offender's likelihood to become a victim. Offenders and victims not only are similar in terms of personal qualities but also often are the same individual (Gottfredson, 1984; Jensen and Brownfield, 1986; Lauritsen, Sampson, and Laub, 1991; Sampson and Lauritsen, 1990). Are the overlapping characteristics the key to understanding both criminal behavior and victimization? With this possibility on the table, it has made sense for scholars to explore whether prominent theories of crime have the potential to explain victimization. Notably, self-control theory has been applied in this way.

As will be reviewed later, early victimization theories emphasized exposure to risk; these include routine activities theory (Cohen and Felson, 1979), lifestyle exposure theory (Hindelang, Gottfredson, and Garofalo, 1978), lifestyle-routine activity theory, and opportunity theory (Cohen, Kluegel, and Land, 1981). Although valuable, these models, individually and in combination, did not provide a complete explanation of the impact of individual characteristics on victimization. As a result, an opening existed for the development of an alternative or complementary theory of victimization. Christopher Schreck would take advantage of this possibility.

Nearly a decade after Gottfredson and Hirschi introduced self-control as a predictor of criminal behavior, Schreck (1999) argued that the self-control paradigm could be extended from a theory of behavior to a theory of victimization. Although Gottfredson and Hirschi (1990, pp. 89-91) viewed self-control as a unitary propensity, they had discussed the "elements of self-control." Building on this discussion, Grasmick, Tittle, Bursik, and Arneklev (1993) had identified six elements, which they combined to construct a classic measure of the construct. Schreck (1999) reasoned that these six elements could be used to probe how low self-control might increase victimization. These elements included the following: a lack of future

orientation, a lack of empathy, low tolerance for frustration, a lack of diligence, a preference for physical rather than mental activity, and a preference for risk.

The first element of low self-control is a lack of *future orientation*. According to Schreck's (1999) self-control theory of victimization, this component relates to an individual's impulsivity and disregard for future consequences. Individuals with low self-control pursue current desires and only consider the consequences of their actions after those outcomes are triggered. Such impulsive behavior makes an individual vulnerable to a host of negative consequences, one of which is victimization (Schreck, 1999). Individuals who engage in spur-of-the-moment decisions may not weight the possibility that they are entering a situation where they face the heightened risk of assault, robbery, kidnapping, or even homicide. Impulsive behavior and a disregard for the future have implications for property victimization as well as personal victimization. People who do not think beyond the current moments may be more likely to leave valuables unattended, because they do not consider that another individual may steal the unguarded items.

The second element of low self-control is lack of *empathy*. Individuals who have less self-control tend to be less empathetic than those with higher levels of self-control; that is, they tend to be more insensitive. According to Schreck (1999), one consequence of the failure to care for others is the absence of close personal relationships or many (if any) friends. Not possessing close personal relationships can be detrimental to a potential victim. Thus, someone with few friends has less guardianship, particularly in social situations. For example, a neighbor is much more likely to provide guardianship for a friendly and caring neighbor than for the insincere person next door. Further, those who are less empathetic are less attuned to the moods and

behaviors of those around them. This means that the person with low self-control is less likely to notice the mal-intent of another.

The third element of low self-control is a lack of *tolerance for frustration*. Individuals with low self-control are quick to succumb to their frustration. In some situations, a proclivity toward frustration can escalate a tense encounter into an all-out brawl, and as Schreck (1999) indicates, oftentimes “the difference between offending and being victimized depends on who wins the fight” (p. 636). While those with a low tolerance for frustration may be more likely to initiate a fight, they may not be more likely to win the altercation. In this instance, their low self-control placed them at a higher risk of victimization. A low tolerance for frustration can heighten risk of property victimization as well. For people who are easily frustrated, complex security measures may induce too much annoyance to be worth their while. They may use such measures carelessly as a result, or may not use them at all.

The fourth element of low self-control is a lack of *diligence*. People with low self-control often lack diligence; they tend to have an absence of tenacity and persistence in many endeavors, which means they often leave tasks incomplete. As Schreck indicates, “lack of diligence also leads to failure to take precautions against personal victimization” (1999, p. 636). Individuals without diligence may use security measures carelessly or inconsistently. While a low tolerance for frustration produces careless use of security measures out of annoyance, the person who lacks diligence simply fails to follow through with providing proper security. Individuals lacking diligence may neglect guardianship altogether, even when measures are readily available. Schreck (1999) suggests that the end result is the same for both elements of low self-control: exposure to victimization.

The fifth element of low self-control is a *preference for physical over mental activities*. Because they are more physical than mental, those with low self-control are more likely to engage in a physically aggressive manner in difficult situations rather than verbally sorting out the circumstances (Schreck, 1999). Instead of using words to de-escalate the situation, they are more likely to use their brawn to try to intimidate or get their own way. Schreck (1999) also indicates that those with low self-control are less likely to identify the potential risks in a situation or to examine outcomes alternative to violence. For those who offend, the tendency is to act rather than weigh the potential consequences of a crime such as assault. For potential victims, individuals with low self-control can incite assaultive behavior by adopting a physically defensive posture during an altercation, rather than talking through the situation.

The sixth and final element of low self-control theory is a *preference for risk*. Essentially, people with low self-control are more inclined to engage in thrill-seeking and risky behaviors. Schreck (1999) argues that risky and thrill-seeking behaviors are catalysts not only to criminal activities; these types of behaviors also open individuals up to the risks of victimization. For example, youth may sneak out of their home at night to meet up with friends, which makes them vulnerable to victimizations such as robbery, assault, or kidnapping, among many other types of crimes.

In his work, Schreck (1999) used the 1996 Tucson Youth Project (TYP) survey of over one thousand college students at the University of Arizona to examine the relationship between low self-control and victimization. In particular, Schreck (1999) had three measures of victimization as his dependent variable. The first was a general measure of victimization that was a composite of seven items patterned after the National Crime Survey. For his next two dependent variables, Schreck (1999) broke down general victimization into property

victimization and violent victimization. For his measure of low self-control, Schreck (1999) used a personality index of thirty items. The thirty items were a combination of measures taken from the works of Gibbs and Giever (1995) and Grasmick et al. (1993), as well as several items that were created for the Tucson Youth Survey.

Using the above variables, Schreck (1999) estimated three models with logistic regression. The first model measured the effects of demographic variables on his three measures of victimization. In his second model, Schreck (1999) estimated the effects of low self-control on his measures of victimization, while controlling for gender and income. In his final model, Schreck (1999) added in a six-item measure of criminality to the second model. Before estimating his three models, Schreck (1999) noted the significant differences in self-control between victims and non-victims in his sample. For example, male victims reported lower levels of self-control than male non-victims. The same held true for females; female victims also reported lower levels of self-control than female non-victims. Overall, males reported lower levels of self-control than females, with male non-victims reporting lower self-control than female victims (Schreck, 1999).

For all dependent variables—general, property, and violent victimization—a pattern developed through each of the three models. The first pattern was the significance of gender in predicting victimization. In the first model, males were more likely to experience any type of victimization than were the females in the sample (Schreck, 1999). The second pattern emerged with the addition of low self-control in the Model 2. The analysis showed that low self-control mediated the effects of gender and that low self-control had a significant relationship with victimization. Individuals with low self-control were at significantly higher risk of any type of victimization than are individuals with higher self-control (Schreck, 1999). The third pattern

emerged with the inclusion of the criminality measure. The addition of self-reported criminality was statistically significant for all three types of victimization (Schreck, 1999). Criminality mediated the effects of self-control but did not render self-control non-significant. Low self-control remained a significant predictor of victimization for general, property, and violent victimization even after controlling for other significant measures such as gender and criminality (Schreck, 1999).

Schreck's 1999 study laid the foundation for the application of self-control theory to victimization studies. Notably, Schreck's (1999) work served to inspire numerous subsequent studies exploring the relationship between low self-control and victimization. In general, this research has shown that those with low self-control are at greater risk of being victimized. The best assessment of this literature is found in Pratt et al.'s (2014) meta-analysis. This important study is reviewed in the next section.

Pratt et al.'s Meta-Analysis

Just as tests of low self-control became increasingly pervasive in offending literature throughout the 1990s, the same became true for low self-control and victimization following Schreck's (1999) application of the theory to victims. Ten years after the introduction of low self-control into the offending literature, Pratt and Cullen (2000) indicated that it was time to take stock of the relationship between the two variables in the existing research (see also Vazsonyi et al., 2017). Similarly, Pratt et al. (2014) produced a meta-analysis to determine whether low self-control was a consistent and significant predictor of victimization across the numerous studies testing the relationship.

Pratt et al. (2014) meta-analysis had two goals: (1) to determine the overall strength of effects of self-control on victimization; and (2) to assess the consequences of methodological

variation on the magnitude of the self-control-victimization relationship. The available studies of low self-control on victimization varied widely in terms of samples used, forms of victimizations assessed, model specification, and whether moderator variables were included in the analysis, and Pratt et al. (2014) sought to clarify the effects of these methodological differences. To address each of these goals, Pratt et al. (2014) used a multilevel modeling (MLM) procedure to assess the three levels of information within their data: Level 1 accounted for the statistical models producing effect sizes; Level 2 included the individual studies; and Level 3 maintained the independent data sets.

Due to the growing importance of self-control in the field of victimology, Pratt et al. (2014) had a large number of studies at their disposal. They examined 66 studies that used 42 independent data sets, and from these resources they drew 311 effect size estimates. These datasets spanned 31 nations and included 102,716 individual cases, which lent diversity to the analysis (Pratt et al., 2014). Across the studies, common sample types were respondents from schools, the general population, and criminal/high risk groups that included offenders and individuals with clinical abuse problems. Variables in the samples indicated whether the sample was mixed gender, was male or female; was racially heterogeneous; was adult or juvenile; or came from outside the United States (Pratt et al., 2014).

To address their first goal of the study, Pratt et al. (2014) assessed the strength of effects found throughout the studies within their analysis. They found that low self-control is consistently a statistically significant predictor of victimization across studies, albeit modest in comparison to low self-control's predictive effects on offending. The overall mean effect size for self-control victimization is .154, indicating that for each standard deviation increase in low self-control, the standard deviation of victimization also increases by .154 (Pratt et al., 2014).

This is somewhat weaker than the effects of low self-control on offending, which Pratt and Cullen (2000) found to be consistently above .250. Pratt et al. (2014) also found the effects of low self-control on victimization were stronger in bivariate than multivariate models. Despite variation in strength between bivariate and multivariate models and producing slightly weaker effects on victimization than offending, the effect on low self-control remained statistically significant across all studies (Pratt et al., 2014).

To address the second goal of their study, Pratt et al. (2014) examined the methodological differences across studies to uncover any changes in the effects of low self-control on victimization. Variations in studies, such as the introduction of moderator variables or differences in the type of samples used, could potentially increase or decrease the effect size of low self-control. Pratt et al. (2014, p. 101) found “general effects” throughout the wide array of studies included in their analysis. Despite differences in model specifications, research design, and sample characteristics, low self-control remained robust and significant for the sample of all studies. The effect sizes of the self-control-victimization relationship were affected by methodological changes, however, with effects of self-control appearing weaker in studies that control for prior victimization and in adult samples. Alternatively, Pratt et al. (2014) found that the effects of self-control were stronger in male samples and in samples of populations outside the United States. Low self-control is also a stronger predictor of noncontact forms of victimization such as online victimization (Pratt et al., 2014). Similar to the overall strength of low self-control’s effect on victimization, low self-control remained statistically significant across studies despite changes to methodology (Pratt et al., 2014).

The meta-analysis by Pratt et al. (2014) provides support for the conclusion that low self-control is a source of victimization. Using a large number of studies and effect sizes, Pratt et al.

(2014) found that self-control was a consistent, significant predictor of victimization in research studies conducted on different populations and marked by methodological variation. These results thus suggest that future investigations of victimization must include self-control or risk experiencing specification error.

It should be noted, however, that the studies included in Pratt et al.'s (2014) meta-analysis focused heavily on research undertaken within the United States. Accordingly, given the purpose of this dissertation, the next section will review the effects of self-control on victimization in international contexts.

International Studies of Low Self-Control and Victimization

The relationship between low self-control and offending has become widely studied within the United States. Pratt et al.'s (2014) meta-analysis indicates that the relationship between low self-control and victimization has also become an important topic of research within the United States. While offending research has become more prolific internationally, studies of low self-control and victimization have taken longer to garner interest and scholarship, particularly in countries outside of the United States, Australia, and western European nations. Notably, non-Western nations are marked by distinct cultures and values that potentially influence how traits such as low self-control are manifest (Aas, 2012). Because of the differences in culture, many of the international studies on victimization and self-control have sought to fill the void in research by focusing on respondents in places marked by Eastern cultures (Ren, He, Zhao, and Zhang, 2017). Given the purpose of this dissertation, it is important to examine the nature of the relationship between low self-control and victimization experiences around the globe. Accordingly, the literature on international victimization and low self-control will be reviewed.

It is instructive that the generality thesis of Gottfredson and Hirschi's general theory of crime, as it is applied to victimization, appears to persist in Eastern cultures. Researchers have demonstrated that, in spite of differences in values and culture, low self-control remains a significant predictor of offending across varying populations. In fact, several studies have found a significant relationship between low self-control and victimization in Chinese samples (Chui & Chan, 2015; Li, Zhang, & Wang, 2015; Ren et al., 2017; Schwartz, Chang, & Farver, 2001); in South Korean samples (Cho, 2016; Gover, Jennings, Tomsich, Park, & Rennison, 2011; Reyns, Woo, Lee, & Yoon, 2016); and in a Thai sample (Kerley, Xu, & Sirisunyaluck, 2008). This association also has been reported for a Turkish sample (Deryol et al., 2017).

The nation of Turkey is shared between Europe and Asia and could be considered the nexus between Europe and the Middle East. Given Turkey's intercontinental nature, the country is classified as European by some, Asian by others, and Middle Eastern by yet additional researchers. Despite this ambiguity, Turkey's Middle Eastern character—including its cultural similarities and geographic proximity to Saudi Arabia—makes research conducted there of relevance to the current project. In this regard, Deryol et al. (2017) used a sample of more than 900 Turkish school students to examine the effects of numerous variables on violent victimization, including low self-control, individual lifestyle measures, routine activities of the students, and perceived school guardianship/control over the student.

Through regression analysis, Deryol and colleagues found that low self-control significantly predicted the occurrence of violent victimization, with no mediated or moderated effects of the other included variables. In fact, a one unit increase to low self-control resulted in a nearly 60% increase in victimization within their sample. The effects of low self-control persisted with the addition of variables accounting for deviant lifestyle and peer-related lifestyle

measures such as gang membership or having gang-affiliated friends (Deryol et al., 2017). A recent extension of this initial study explored the ways in which gender changed the effects of low self-control on victimization, with implications that self-control affects routine activities more so for males than for females. In turn, this impact on routine activities places males with lower levels of self-control at higher risk for victimization than females with lower levels of self-control (Deryol, Wilcox, and Dolu, 2018). The data supported this interpretation.

In another recent investigation, Ren, He, Zhao, and Zhang (2017) examined the self-control-victimization relationship within a sample of nearly three thousand Chinese youths. They used two items to tap into levels of self-control: impulsivity and risk-seeking tendencies. In their analyses, Ren et al. (2017) first established that differences in self-control across victims and non-victims were statistically significant. Second, they determined that the effects of both measures of self-control significantly increased the likelihood of violent and property victimization (Ren et al, 2017). However, the addition of risky lifestyle variables in their model partially mediated the effects of low self-control on both violent and property victimization. When accounting for risky lifestyles, the measure of risk-seeking tendencies remained significant whereas the measure of impulsivity became non-significant (Ren et al., 2017).

Outside of the work by Ren et al., (2017), little research has been conducted on Chinese victimization in any capacity; only two large-scale studies of victimization currently exist in China. However, Ren et al, (2017) were not the first to demonstrate the relationship between low self-control and victimization in eastern Asia, although there are some conflicting findings. For example, Li, Zhang, and Wang (2015) found that low self-control significantly predicts bullying victimization in Chinese youth, whereas Chui and Chan (2015) found null effects, although the relationship was in the expected (negative) direction. While not directly measuring

low self-control, other research has found similarities in the social processes underlying peer group victimization across Chinese and Western cultural settings (Schwartz, Chang, and Farver, 2001). Even with these mixed findings, the results suggest that Chinese youth victimization experiences are more similar than dissimilar to those in the United States.

Some scholars have explored the generality thesis by comparing findings from international and U.S. samples. Using samples of college students from South Korea and American colleges, Gover et al. (2011) examined the effects of childhood maltreatment and low self-control on dating violence in young adulthood. The analysis revealed low self-control to be a key predictor for both psychological and physical relationship violence in the United States as well as in South Korea. Similar to dating violence victimization, Kerley, Xu, and Sirisunyaluck (2008) studied intimate partner violence within a sample of nearly 800 married females in Bangkok, Thailand. Using three self-control measures—impulsivity, risk-taking, and being physical—they found that both psychological and physical intimate partner victimization was significantly related to all measures of low self-control.

While studies on international victimization and low self-control are not as numerous as those on the low self-control-offending relationship, they have begun to reveal the nature of the relationship in an international context. Across a variety of samples and unique cultures, and for differing types of victimization, the relationship between low self-control and victimization persists. Most often this relationship is statistically significant or in the predicted direction, with low self-control increasing as the risk of victimization also increases.

While support and evidence for the low self-control-victimization relationship has grown, other theories of victimization should not be cast aside too quickly. Instead, competing theories of victimization need to be tested against the merits of low self-control to avoid specification

error and to assess the relative empirical merits of these perspectives. Given these considerations, the lifestyle/routine activity theory (L-RAT)—a major theory of victimization—will be examined in detail in the following section of this paper.

LIFESTYLE-ROUTINE ACTIVITY THEORY (L-RAT)

Cohen and Felson's Routine Activity Theory

Beginning in the late 1940s through the 1970s, the United States experienced a surge in criminal activity that appeared at odds with the flourishing economy of the country. Both property and violent crime rose, with rates of robbery, aggravated assault, forcible rape, and homicide increasing by 263%, 164%, 174%, and 188% respectively (Cohen and Felson, 1979). Curiously, economic indicators of success within the United States surged in conjunction with crime rates. For example, a higher proportion of individuals were completing high school, fewer people were unemployed, the median family income was on the rise, and a lower number of people were living below the poverty level. Even as the economic indicators suggested that individuals' lives were getting better, increasing crime rates told an alternate story. This inconsistency caught the attention of the National Commission on the Causes and Prevention of Violence along with criminological researchers. In particular, Cohen and Felson (1979) addressed the paradox of higher success and higher crime rates with the introduction of their routine activity approach to crime, which revolves around the intersection of a motivated offender, a suitable target, and the lack of capable guardianship.

To build a theoretical foundation for their routine activity approach, Cohen and Felson (1979) drew from theories describing the structure of criminal activity and the nature of human ecology. In regards to structure of criminal activity, Cohen and Felson (1979) reference the

influence of community structure on crime rates, as was evidenced in the work of Shaw and McKay (1929). They also emphasize that illegal acts are “*events* which occur at specific locations in *space* and *time*” (p. 589, emphasis in original), which is an important consideration for the convergence of the three elements of the routine activity approach. Cohen and Felson (1979) also selected concepts from Hawley’s (1950) human ecological theory. According to Hawley (1950), there are three descriptors for the nature and structure of a given community: *rhythm*, *tempo*, and *timing*. Rhythm refers to the routine nature of activities and the regularity of events. Tempo is an indication of the volume of events; for example, three robberies occur daily on a particular street. Timing indicates how activities, even those of independent individuals, weave around each other to overlap in rhythm at specific intervals. Cohen and Felson (1979) use Hawley’s earlier works to inform the ways in which motivated offenders, suitable targets, and capable guardians may converge into a singular location at a given time.

In the empirical assessment of their routine activity approach, Cohen and Felson (1979) examined national crime data from large-scale government victimization surveys in 1973 and 1974. As part of their analysis, they compared levels of crime across three dimensions: circumstances and location of offenses; target suitability; and family activities and crime rates. To explore the circumstances and location of offenses, they examined crimes committed by family versus nonfamily members and crimes committed within the home as opposed to outside the home. The analysis revealed that crimes were more often committed by nonfamily members outside of the home, and those who engage in household and family activities experience a lower risk of criminal victimization. In fact, the risk of victimization increases as the social distance between offender and victim increases. For example, Cohen and Felson (1979) found personal larceny rates to be 350 times higher at the hands of strangers in the streets than at the hands of

nonstrangers at home. These findings indicate that as people engage in more routine activities outside the home and with people not within their family, they increase their risk of victimization (Cohen and Felson, 1979).

The second part of their empirical assessment examined target suitability. Components of target suitability include value, visibility, accessibility, and inertia. Items that are higher in value, are visible to potential offenders, are easily accessible, and are easily transported are most suitable to potential offenders. To tap into the concept of target suitability, Cohen and Felson (1979) examined stolen property data from the 1975 UCR and compared it with national data on personal purchases. Not surprisingly, thieves tend to target goods that provide, quite literally, the “most bang for their buck.” Expensive and easily transported items, such as vehicles and electronics, had the highest rate of theft, whereas bulky, heavy, and less expensive items were less likely to be stolen. In their analysis, Cohen and Felson (1979) compared cost per pound of items considered both suitable and non-suitable targets. For example, a Panasonic car tape player is valued at \$30 per pound while refrigerators and washing machines are valued anywhere from \$1-3 per pound. The first item is not only easier for thieves to carry away, but it also has a much higher rate of return. Although the electronics featured in their example may be dated, the idea that lucrative and portable items are most attractive to criminals is not.

Finally, Cohen and Felson (1979) assessed family activities in comparison to crime rates. They found victimization rates to be inversely related to age and to be lower for people with less active lifestyles. In particular, those that keep house, are unable to work, are retired, or are in intact marriages tend to have lower victimization rates. One exception to this trend is individuals who are unemployed, as their victimization rates are higher than would be expected. To exemplify this point, Cohen and Felson (1979) reported that burglary and robbery victimization

rates are about twice as high for persons living in single-adult households as for other persons in each group examined. In addition, larger households experience less crime per person, and households with younger heads of the house experience more crime (Cohen and Felson, 1979).

Cohen and Felson (1979) use each of these pieces to explain the rising crime rates in conjunction with greater economic prosperity in the United States. They clarify that routine activities may occur either in the home, in jobs away from the home, or in other activities away from the home. As people engage in more activities away from the home, they become exposed to higher risks of victimization. Cohen and Felson (1979) maintain that since World War II, activities conducted outside the home have increased. More men and women enrolled in college, and a greater number of women began working outside of the home. Specifically, married women who had previously kept house were leaving the home seeking a college education or employment (Cohen and Felson, 1979).

The greater income generated by two bread-winning parents increased families' ability to purchase vehicles, electronics, and other items that are attractive to criminals. Not only did families have more spending ability, but also goods changed from the 1960s to 1970s in that products were designed to be smaller and lighter-weight. Families could also afford to take more vacations and travel out of town (Cohen and Felson, 1979). The effects of more people engaging in activities outside the home is two-fold: less time at home leaves property unguarded and vulnerable, and leaves individuals at higher risk of personal victimization as they venture into non-household environments. These changes in the routine activities of many Americans paralleled the trends in crime rates at the same time (Cohen and Felson, 1979).

To test their assertion of parallel routine activities and crime rates, Cohen and Felson (1979) developed the *household activity ratio* and compared it to forcible rape, aggravated

assault, robbery, burglary, and homicide rates collected from federal crime data. The household activity ratio is calculated by adding the number of married, husband-present female labor force participants to the number of single head-of-house households. This sum is then divided by the total number of households in the United States (Cohen and Felson, 1979). The calculation provides the proportion of American households at highest risk of personal or property victimization, based on their estimated activity away from home and their likelihood of possessing attractive goods. Cohen and Felson (1979) hypothesized that the household activity ratio should vary directly with the crime rates of their five selected offenses. They used a time-series analysis to evaluate the relationship between the crime rate and the household activity ratio from 1947 through 1974. For all five categories of offenses, the household activity ratio varied directly and significantly with changes in crime rates, supporting the explanatory power of a routine activity approach to crime.

At the core of their theory, Cohen and Felson (1979) assert that there are three necessary components to crime: a motivated offender, a suitable target, and the lack of a capable guardian. For a crime to occur, these three elements must converge in time and space. Only one of these components need be lacking to prevent a crime from transpiring. By focusing on these three elements, Cohen and Felson (1979) effectively shifted attention away from the characteristics of offenders and toward the circumstances in which criminal acts are possible. While their theory may appear to be common sense, they drew from a variety of sources to provide a comprehensive theoretical understanding of how the changing routines of individuals within the United States are directly related to increases in U.S. crimes rates. Taken together, these theories depict a society in which people are mobile and fluid, yet their activities are dictated by routine. Traveling to and from work, school, and other social activities, as well as the time spent at each

destination, provide ample opportunity for the elements of routine activity theory to come together at a particular time and place.

The next section of this paper will examine the progression of routine activity theory into the lifestyle/routine activity theory (L-RAT). In particular, lifestyle exposure theory will be explored, along with the theory's integration into routine activity theory to create one cohesive approach to the structure of and nature of activities, along with the influence of those activities on criminal opportunity.

Lifestyle Exposure Theory

Around the same time that Cohen and Felson's (1979) routine activity perspective was set forth, Hindelang, Gottfredson, and Garofalo (1978) proposed one of the first theories of differential risk of victimization, which they called the "lifestyle exposure theory." At first glance, routine activity theory and Hindelang et al.'s (1978) lifestyle exposure theory appear very similar. Both theories require that a motivated offender comes into contact with a suitable target, without the supervision of a capable guardian. Under these conditions, a crime is likely to occur. Upon closer inspection of the theoretical foundation of each of the perspectives, however, significant differences can be identified. A primary distinction between routine activity and lifestyle exposure theories is the purpose driving each model. Routine activity theory explains the logistics of a crime opportunity: three elements must converge in time and space in order for a crime to occur. The absence of even one of the three elements eliminates the crime opportunity. Lifestyle exposure theory takes a step back from Cohen and Felson's perspective to explain *why* the suitable target finds himself or herself among the unfortunate trio of elements. Further, lifestyle exposure theory hinges on the idea of "risk" in which some individuals experience higher risk of victimization due to certain lifestyles (Hindelang et al., 1978).

The model of risk proposed by Hindelang et al. (1978) is somewhat cumbersome in comparison to the parsimony of routine activity theory. The lifestyle exposure model begins with the demographic characteristics of an individual that dictate behaviors based on social constraints and role expectations. According to Hindelang et al. (1978), individual characteristics such as age, gender, race, income, marital status, education, and occupation carry certain expectations within society in terms of behavior. For example, young, single males attending college are associated with a social expectation to party, drink alcohol, and stay out at all hours of the night. Such conditions allow for numerous victimization opportunities, from getting mugged on their way home from a party to engaging in a drunken brawl at a bar. Alternatively, older, married women experience a greater expectation to keep house and be responsible for their children, which places them at low risk for robbery or assault victimizations. Demographic variables (such as age) may change over time and as will their associated expectations of appropriate and inappropriate behaviors (Hindelang et al., 1978).

Structural constraints such as occupation and income similarly affect expected roles and behaviors (Hindelang et al., 1978). Occupation draws individuals of a similar socio-economic class in proximity of one another, whereas income determines where an individual can afford to live as well as defines the types of activities individuals may engage in outside of working hours. These constraints may loosen as an individual is promoted or obtains a higher-paying job, or they may constrict when a job is lost. Between the inherent demographic characteristics of an individual and the structural constraints that are prescribed to that person, the individual's routine activities are shaped, and those routine activities develop into a lifestyle (Hindelang et al., 1978). Because specific characteristics lead to the establishment of certain routine activity patterns, then it follows that other people found within the same routine activities share similar characteristics

to our first individual (Meier & Miethe, 1993). This pattern is important, because according to Hindelang et al. (1978), offenders do not choose their victims at random. Instead, offenders select victims due to proximity through shared routine activities. In light of this proposition, certain lifestyles can be expected to elevate risk of victimization by bringing prospective offenders into regular proximity to suitable victims (Hindelang et al., 1978).

Despite Hindelang et al.'s (1978) focus on the implications of lifestyle on risk of victimization, they do not completely ignore the logistics of a victimization event. Similar to routine activity theory, certain conditions must exist for individuals' behavior to place them at risk of being victimized. First, there must be a convergence of victim and offender. Second, a dispute or claim must exist between the two parties. Third, the offender must be willing to settle the dispute or claim through illegitimate means, such as through force or stealth. Finally, the offender must determine that the benefits of using illegitimate means to settle the dispute outweigh the potential costs of such action (Hindelang et al., 1978). If these conditions are met, then a victimization may occur. The probability of these conditions being met is influenced by the lifestyles of the individuals involved, which create differential probabilities among individuals of being in "particular places at particular times and coming into contact with persons who have particular characteristics" (Hindelang et al., 1978, p. 245).

Working from this idea of variable probabilities, Hindelang et al. (1978) created a set of eight propositions to describe the circumstances in which individuals are at higher risk of victimization:

- *Proposition 1:* Individuals face higher likelihood of victimization the more time they spend outside the home in public places. This is especially true for individuals who find themselves in public places at night and on weekends.

- *Proposition 2:* Certain lifestyles are more conducive to visiting public places, particularly at night and on weekends.
- *Proposition 3:* People tend to maintain social circles with individuals who are similar to themselves and share their lifestyle. According to Hindelang et al. (1978), “social contacts and interactions occur disproportionately among individuals who share similar lifestyles” (p.255).
- *Proposition 4:* The more closely individuals resemble offenders in terms of demographic categories, the higher the probability that the individuals will become victims.
- *Proposition 5:* Lifestyle determines the amount of time that individuals spend in public places in proximity to large numbers of non-family members.
- *Proposition 6:* The more time that individuals spend with non-family members, the higher their risk of victimization becomes.
- *Proposition 7:* “Variations in lifestyle are associated with variations in the ability of individuals to isolate themselves from persons with offender characteristics” (Hindelang et al., 1978, p. 262).
- *Proposition 8:* Differences in lifestyle affect an individual’s attractiveness as a victim in terms of logistics. Hindelang et al. (1978) note that “variations in lifestyle are associated with variations in the convenience, the desirability, and vincibility of the person as a target for personal victimizations” (p. 264).

Individuals who align with the above theoretical propositions are at higher risk of victimization than individuals who do not. Within the eight propositions, Hindelang et al. (1978) clearly indicate how demographic characteristics inform lifestyle, which in turn affects the

proximity of potential victims to would-be offenders. In this way, lifestyle exposure theory uses demographic and lifestyle characteristics of individuals to measure their risk of being victimized. From a routine activity perspective, risk of victimization can be thought of as the probability of motivated offenders and suitable targets converging without guardianship.

Given the close relationship between routine activity theory (Cohen and Felson, 1979) and lifestyle exposure theory (Hindelang et al., 1978), it should come as no surprise that the two theories have been used nearly interchangeably for nearly forty years. The theories share many of the same concepts, yet they also complement one another in that lifestyle exposure theory explains at the individual-level *why* of victimization, whereas routine activity theory takes a broader and logistical approach of *how* victimization occurs. Taken together, the two theories help paint a larger picture of victimization without sacrificing details. Indeed, their combined use has become so ubiquitous in criminological literature that their integration is referred to as “lifestyle-routine activity theory”—now known commonly by the acronym of “L-RAT.” One of the first studies to explicitly marry the two theories into L-RAT was produced by Cohen, Kluegel, and Land (1981) in their evaluation of the mediation effects of exposure, guardianship, proximity to motivated offenders, and target attractiveness on risk of victimization: a study which provided support for the combined theories. Not only does lifestyle-routine activity theory make theoretical sense, but there is also considerable empirical support for the combination theory (Pratt and Turanovic, 2015). In the following section, the empirical tests of lifestyle-routine activity theory with youths will be reviewed.

Tests of L-RAT with Youths

A large number of studies have demonstrated that offenders and victims often share personal characteristics, such as age, sex, and racial and ethnic identity (Broidy et al., 2006;

Gottfredson, 1986; Hindelang, 1976; Hindelang et al., 1978; Laub, 1990; Mustaine and Tewksbury, 2000; Schreck, Wright, and Miller, 2002). Not only do victims and offenders share similar personal qualities, but also they are commonly the same individual (Gottfredson, 1984; Jensen and Brownfield, 1986; Lauritsen et al., 1991; Sampson and Lauritsen, 1990). Based upon this research, it follows that youths who routinely engage in delinquent activities or similarly risky behaviors should experience higher risk of victimization than youths who do not. This idea is supported by a significant amount of research (Henson, Wilcox, Reyns, and Cullen, 2010; Kennedy and Forde, 1990; Lauritsen, Laub, and Sampson, 1992; Lauritsen and Quinet, 1995; Lauritsen et al., 1991; McNeeley and Wilcox, 2015). Importantly, the research thus shows that engaging in risk-taking behaviors—such as drug use, alcohol abuse, driving under the influence, or being sexually promiscuous—increases youth risk of victimization (Gover, 2004; Tilley, 2015).

Routine activity theory stresses the importance of legitimate, daily routine activities that produce opportunities for offenders to take advantage of easy targets (Cohen and Felson, 1979). Risky lifestyle theory focuses on activities that place individuals at higher risk of victimization (Hindelang et al., 1978). In combining the two theories, youth victimization researchers have identified the need to differentiate between structured and unstructured activities. Youths have a large amount of discretionary time – nearly 40% of any given day is available for engaging in activities outside of school or family functions (Bartko and Eccles, 2003). During that 40% of their time, youths may engage in structured activities such as school-sponsored extracurricular activities or organized, adult-led activities. Alternatively, youngsters may opt for unstructured activities, which include unorganized leisure activities that lack an appropriate guardian (Bartko and Eccles, 2003). Through the L-RAT lens, structured activities are generally considered

legitimate, low-risk behaviors, while structured activities are intrinsically more risky given their lack of oversight from a capable guardian. Researchers have found support for this notion, although there are nuances according to individual-level and neighborhood-level characteristics.

At the neighborhood level, Maimon and Browning (2017) found that the neighborhood context was important in determining the riskiness of unstructured activities; unstructured socializing with peers significantly increased risk of violent victimization, but only in neighborhoods with low collective efficacy (Maimon and Browning, 2017). At the individual level, several studies have found a significant relationship between race, ethnicity, and structured youth activities (Peguero and Popp, 2012; Peguero, Popp, and Koo, 2011). Peguero and Popp (2012) examined the effects of school-related activities on youth victimization while taking personal characteristics into consideration. Despite the assumption that structured activities are overall less risky and reduce risk of victimization, Peguero and Popp (2012) found a differential effect of school-sponsored athletics on youth victimization, where involvement in school sports increased risk of victimization for racial and ethnic minority males. Alternatively, white American males experienced lower risk of victimization when they became involved in the same activities (Peguero and Popp, 2012).

A number of studies have examined the mediating effects of risky lifestyles and routine activities on victimization, particularly within the context of gender (Bunch, Clay-Warner, and Lei, 2015; Lauritsen et al., 1991; Messner, Lu, Zhang, and Liu, 2007; Miethe, Stafford, and Long 1987). For example, Henson et al. (2010) determined that gender's effect on both minor and serious victimization was substantially mediated by a delinquent lifestyle. Additionally, Bunch, Clay-Warner, and Lei (2015) studied the extent to which routine activities mediate the associations between specific demographic characteristics, violent victimization, and theft. In

their analysis, the effect of gender on violent victimization was partially mediated by routine activities (Bunch et al., 2015).

Researchers have demonstrated the applicability of lifestyle-routine activity theory in explaining youth victimization in the United States, as well in some European and eastern Asian contexts (Messner et al., 2007; Pauwels and Svensson, 2011). While differences in culture would intuitively seem to change the nature of youth's routine activities, findings are relatively consistent across varying countries and cultures. In this regard, the following section of this paper will describe the social and economic environment in which Saudi Arabian youths reside. Typical routine activities of Saudi Arabian youths will be examined to provide a contextual comparison between the United States and Saudi Arabia.

YOUTHS IN SAUDI ARABIA

The Kingdom of Saudi Arabia is a Middle Eastern country with a land area slightly more than one-fifth that of the United States. Neighboring countries include Jordan and Iraq to the north, Kuwait to the northeast, Qatar, Bahrain, and the United Arab Emirates to the east, Oman to the southeast, and Yemen to the south. It is separated from Israel and Egypt by the Gulf of Aqaba. Saudi society has been shaped largely by the prominent economic and religious positions of the nation. Saudi Arabia has become a wealthy nation through its significant petroleum reserves and production authority as one of the founding members of the Organization of Petroleum Exporting Countries (OPEC). In addition to Saudi Arabia's strong economic identity, the country is also deeply rooted in Islam. Within the nation's borders lie two sacred cities--Makkah and Madinah. Makkah and Madinah are believed to be the birthplace of Islam, and the two holy cities are frequented by a great number of travelers every year (Fatta, 2013).

The strong ties to Islam are pervasive throughout Saudi Arabian culture; the country is bound by strict Islamic laws that restrict many aspects of Saudi social life. Five times a day, businesses close and work stops for all Saudis to engage in prayer. Islam is so intertwined with Saudi life that it dictates nearly all social situations. Alcohol is strictly forbidden, and since the 1980s, there have been no theaters, clubs, music shows, art galleries, or many of the other social pleasures that Western cultures take for granted (Cowell and Kirkpatrick, 2017). Entertainment and fraternization are mostly outlawed, and there are very few extracurricular activities associated with Saudi Arabian schools. Islamic religious police, commonly referred to as the “mutaween,” patrol the city to enforce Islamic social decorum, from dress codes to gender relationships. Progressive ruling by the current king of Saudi Arabia has helped to ease the strict rule enforcement of the mutaween. However, the religious police are very slow to change and continue to patrol for wayward behavior (Hilleary, 2013; Said, 2014).

The restrictions placed specifically on Saudi Arabian women are even more severe than those applied to men. Despite recent steps toward equality, Saudi Arabia remains especially prohibitive for women: it is illegal for females to travel or get married without the signature of a male guardian (Alhareth, Alhareth, and Dighrir, 2015). Women are forbidden from interacting with men outside of their immediate families and, until recently, were imprisoned for driving. Saudi Arabia was the sole country to prohibit women from driving, until June 2018 when the ban was finally lifted (Hubbard, 2017). Women must be accompanied by a male family member at all times outside of the home. Men and women remain segregated in all social situations—from educational institutions to social situations to the workplace (Alhareth, Alhareth, and Dighrir, 2015).

For all of the cultural differences between Saudi Arabia and the United States, there are similarities in each nation's youths. As with young Americans, Saudi youths are highly active on social media, such as Facebook and Twitter. YouTube, Internet gaming, and video games are also very popular in Saudi Arabia, with 84% of males and 91% of females ages fourteen to nineteen spending at least two hours a day in front of a television or computer (Saqib et al., 2017). Cellphone use is also very high in the Kingdom; Saudi Arabia ranks third highest in the world for smart phone usage (Al-Shariff, 2014). In addition to a strong social media presence, youths in Saudi Arabia also engage in a host of governmentally and privately sponsored athletic activities (Ministry of Economic Planning and Development, 2010). The General Presidency for Youth Welfare organizes athletics across the Kingdom, as well as cultural activities such as arts and crafts and drama clubs (Ministry of Economic Planning and Development, 2010).

Youths and adults alike are encouraged to engage in prosocial activities and discouraged from deviant behavior through harsh penalties resulting from Shari'a law. Shari'a law is Islamic law derived from the Qur'an, and it affords a range of corporal punishments, from caning, lashing, amputation, stoning, beheading, and hanging for the most serious of offenses, such as murder, rape, drug trafficking, repeated theft, and armed robbery. Saudi Arabian law also considers blasphemy, adultery, apostasy, witchcraft, and sorcery to be serious criminal offenses, for which the death penalty may be acceptable (Cipriani, 2009). Minors lack protection from the Shari'a law, for an absence of a codified penal system and a precedent of harsh penalties for youths under the age of eighteen mean that judges possess significant discretion in sentencing delinquents. The Childs Rights International Network (CRIN) indicates that, while the age of criminal responsibility in Saudi Arabia has been raised to twelve years of age, those as young as seven are still tried as adults (Cipriani, 2009).

Strict social customs and severe penalties for failing to adhere to those customs no doubt have an impact on victimization. For example, where there is no alcohol, there are no drunken brawls. Individuals are not out late at night intoxicated and prone to violence. With drug laws much stricter than those in the United States, youths are less likely to engage in substance abuse. With absolute segregation of genders and males escorting female relatives, it seems highly unlikely that sexual victimizations should occur. Despite these seeming barriers to crime, offenses do occur in Saudi Arabia as they do elsewhere. A study of nearly 500 youths in Saudi Arabia found that almost 13% of youths had smoked cigarettes at least once, and nearly 3% had used illegal substances such as alcohol or drugs (Beaver et al., 2015). Further, the private lives of Saudi families have the potential to shelter domestic crimes from the public eye, and sexual assaults often go unreported for fear of reprisal for the victim. More than once, tables have been turned on the victim, who may be accused of and punished for adultery or for being in the presence of a male who is not family (Haddad, 2017). Additionally, a 2012 study of Saudi Arabian youths reported 30% of young Saudis had been exposed to physical violence in the past year (AlBuhairan et al., 2017).

Even though Saudi youths experience restricted access to most risky behaviors that plague Western youths, young Saudis do engage in some deviant activities. Saudi males often take part in risky driving activities called “tafheet.” Tafheet is a dangerous style of driving, much like “drifting” out of the *Fast and the Furious* films. A 2016 study of young males found that over 20% of youths engage in the risky driving behavior, which lends to Saudi Arabia’s extraordinarily high number of deaths from road traffic accidents—the highest in the world, according to the World Health Organization (WHO) (Ramisetty-Mikler and Almakadma, 2016). As of 2016, road traffic accidents are the primary cause of death among Saudi Arabian men

between the ages of sixteen and thirty-six. Tafheet activities are significantly related to other risky driving behaviors, such as not wearing a seat belt and using a cellphone while driving (Ramisetty-Mikler and Almakadma, 2016).

In sum, despite stark differences in culture, it appears that Saudi Arabian youths may become victimized or may find ways to be deviant regardless of social constraints. The next section of this paper will propose an empirical test of similarity between American and Saudi Arabian youths that centers on the relationship between low self-control and victimization.

RESEARCH STRATEGY

Given the emergence of self-control as a theory of victimization applied in the United States, Europe, and a handful of Asian societies, this study is assessing its relevance in a population where self-control theory has not been previously examined. Saudi Arabia culture is notoriously closed, if not repressive, and this study will help provide a glimpse into what drives victimization experiences among Saudi youths. Further, this study will evaluate the generality of self-control theory by determining whether the effects of self-control are contextually specific. Saudi Arabia differs from the United States in a number of significant ways, and this research will demonstrate whether those differences reduce the effects of self-control on victimization, or whether self-control is a pervasive predictor regardless of cultural variation. This study not only explores the generality of low self-control, but it also provides insight into a closed society where little is known about victimization experiences. Consequentially, the self-control-victimization link in Saudi Arabia has been untested until now.

This project uses a self-report 2014 survey that explores delinquency and victimization among high-school aged Saudi Arabian males and females within a large city in Saudi Arabia. Controls are introduced for other potential predictors of victimization, including delinquent

behavior, delinquent peers, and family attachment. In addition, a number of demographic variables were incorporated into the analysis, including respondent's age, father's level of education, and household size. Each of these controls lends robustness to this study, and they will aid in understanding the nature of victimization in Saudi Arabian youths.

CONCLUSION

Youth victimization can be easy to overlook given the seriousness and visibility of adult offenses, particularly in closed or private cultures where accounts of victimization are not necessarily met with public acceptance. However, youth victimization remains an important problem, and this project offers a unique opportunity to examine victimized youths within a contemporary theoretical framework. Scholars have increasingly recognized the importance of assessing theories beyond the borders of the United States. This dissertation thus seeks to contribute to this literature by assessing the generality of self-control theory in a special social context.

Chapter 2

METHODS

Social science investigations of Saudi Arabian youths are limited. In this context, it is unsurprising that data on their victimization experiences are practically nonexistent. The current project thus promises to contribute knowledge that is sorely in need of expansion. Further, it offers the opportunity to advance understanding of low self-control as a predictor of victimization. Studies of low self-control as a significant predictor of victimization have been conducted several times in the United States, within many European countries, and in a handful of eastern Asian nations—but not Saudi Arabia. Thus, this research seeks to assess the generality of the effects of low self-control in a population where the predictor has not yet been measured, and where the social norms of the population are very different from locations where the generality thesis has prevailed. Saudi Arabian culture is much more conservative than Western culture, and the society is permeated with strict laws that are derived from religious beliefs. Due to the conservative nature of the population, it follows that routine activities of adults and youths alike would differ from Western routine activities.

These disparities have the potential to drive differences in victimization experiences, unless those experiences stem from individuals varying levels of self-control. This study seeks to assess whether around the world, kids are fundamentally the same in their sources of victimization. Although cultural differences and variation in routine activities may exist, Gottfredson and Hirschi's general theory proposes that youths are motivated by the same propensities and act according to those impulses regardless of their environment. Specifically, this research will examine the relationship between victimization experiences of Saudi youths under two lenses: the first is through the lifestyle-routine activity theory and the second is

through low self-control. Additionally, this research will examine differences between male and female Saudi youths, as well as within the entire surveyed population.

SAMPLE

The data collected for this research came as the result of a collaboration between Saudi and American academics to advance the state of research within Saudi Arabia. Western scholars were invited to Saudi Arabia to work with the Kingdom's academics to study Saudi youth behavior. In this regard, they jointly constructed a self-report delinquency-victimization survey. To provide an accurate comparison of behavior between Saudi and Western youths, the team opted to restrict measures to those used previously in Western studies that were shown to be valid and reliable. This decision not only allows for comparison across the populations, but it also aids in building a foundation of research on the under-studied Saudi youth population. Additionally, and no less important, the decision to use valid and reliable measures reduces the likelihood that any pattern of behavior uncovered in this study is due to unique measures.

The survey was first written in English and was then translated to Arabic to accommodate a primarily Arabic-speaking population. The survey participants were drawn from a Saudi Arabian city of over 3 million residents. There were several steps taken to produce a random, representative sample of Saudi youths to take the survey. First, the research team created a list of all public and religious high schools in the city, a process that yielded over 200 schools and over 100,000 enrolled students. Once all schools within the city were identified, they were separated according to their geographic location within the city: North, South, Central, and East. Similar to cities in the United States, socioeconomic differences within the Saudi city correspond with geographic location. From each of the four geographic locations, four schools were randomly selected by sex. Two of the schools in each location were all-male and two were all-

female, providing a total of eight schools for boys and eight schools for girls across all geographic regions. Two schools from each area were purposively selected from these pools: one school to be used for data collection and one to be held in reserve.

The survey received support throughout several levels of administration. King Abdulaziz University (KAU) faculty approached the administration of identified schools and requested permission to survey a sample of enrolled students. All schools granted permission for the survey administration. The KAU faculty then randomly selected “homeroom” teachers from within each school and sought their support, which was again garnered successfully. In addition, KAU faculty did not experience any objections by any officials within or outside of the schools. The Saudi government did not influence the creation or implementation of the survey.

In total, 1,000 surveys were administered to 10th, 11th, and 12th grade students. The surveys were split evenly between male and female students: 500 surveys were administered to males and 500 to females. Note that as a secondary data set, information was not available on how the sampling ceased once the goal of 500 surveys by gender was reached. Participation on the survey was optional; however, no students refused participation. In fact, the response rate for students who were present at school on the day of the survey administration was 100%. KAU staff assured both students and school administration of the confidentiality of participation in the survey, and no identifying information was collected either on the student or on the school. In fact, additional steps were taken to ensure that surveys could not be traced back to a particular teacher or homeroom.

Students were given 50 minutes to complete the surveys, and trained KAU staff oversaw survey administration within each of the selected homerooms. Following survey administration, the KAU staff reviewed all of the surveys for completion and for accuracy of responses. They

examined surveys for patterns that would indicate students fabricated or refused responses. Not only did students answer the majority of questions with seeming accuracy, but also many students wrote in additional comments to provide greater insight into their answers. Survey research is much less common in Saudi Arabia than in the United States, and the students were enthusiastic about completing the survey. With regard to missing data, 26 students did not provide their age and 133 respondents did not answer how many family members reside in their household. In all, the missing data appear to be at random.

Table 2.1 provides sample characteristics of all survey participants, as well as characteristics displayed according to respondents' sex. On average, the youths in this sample were 18 years old, with females being slightly younger on average than males in the sample. Females in the sample reported having higher GPAs than did male survey participants. The majority of females (62%) indicated their GPA to be in the A-range, whereas only a third (31%) of male participants indicated they held an A-level GPA. Away from school, males and females appear to have similar home structures. Males and females both indicated an average household size of seven members. On average, males and females both indicated that their fathers were more educated than their mothers, with 38% of respondents' fathers and 25% of mothers having a university-level education.

DEPENDENT VARIABLE

Respondent victimization was measured using a 7-item scale from the Boston Youth Survey (BYS; Sparks, 1981). The BYS victimization scale taps into a range of victimization

Table 2.1. Descriptive Statistics of Sample, by Sex

<i>Variable</i>	<i>Total Sample (n = 1000)</i>		<i>Females (n = 500)</i>		<i>Males (n = 500)</i>	
	<i>Mean</i>	<i>Std. Dev.</i>	<i>Mean</i>	<i>Std. Dev.</i>	<i>Mean</i>	<i>Std. Dev.</i>
Mean Age	7.78	0.99	17.55	1.04	18.02	0.89
Mean Household Size	6.88	2.58	6.80	2.40	6.97	2.78
Self-Reported GPA (%)						
A	46.6		61.8		31.4	
B	35.4		29.0		41.8	
C	16.6		8.6		24.6	
D	1.4		0.6		2.2	
Father's Education (%)						
Less than high school	24.7		23.4		26.0	
High school	37.4		35.0		39.8	
University level	37.9		41.6		34.2	
Mother's Education (%)						
Less than high school	35.7		39.8		31.6	
High school	39.1		33.8		44.4	
University level	25.2		26.4		24.0	
Low Self-Control	24.99	5.36	25.21	5.02	24.79	5.67
Minimum	15.00		15.00		15.00	
Maximum	45.00		41.00		45.00	
Delinquent Involvement	30.80	6.09	29.56	4.27	32.03	7.28
Minimum	27.00		27.00		27.00	
Maximum	77.00		64.00		77.00	
Peer Delinquency	14.36	4.04	13.03	2.53	15.69	4.76
Minimum	11.00		11.00		11.00	
Maximum	33.00		27.00		33.00	
Parental Guardianship	27.06	4.17	28.30	3.96	25.81	3.96
Minimum	12.00		12.00		15.00	
Maximum	36.00		35.00		36.00	

experiences, from physical violence (being punched, kicked, or choked), to verbal forms of violence (being teased, picked on, or made fun of). The BYS scale also inquires about personal thefts, unwanted sexual advances, and threats of violence. The respondents were provided the following prompt: “These questions are about your experiences. Please tell us how frequently the following things happened to you.” Responses to these questions were recorded according to a 3-point scale: 1 = *never*, 2 = *sometimes*, 3 = *often*. The items included in the victimization composite measure were summed, with higher scores indicating higher levels of victimization experiences. This measure of victimization yielded a reliability score of .80. The complete scale of items for respondent victimization include:

1. You were punched, kicked, choked, or beaten up.
2. You were teased, picked on, made fun of, or bullied.
3. Someone sent you mean emails, text messages, or posted something bad about you on the Internet.
4. Someone spread rumors or lies about you.
5. Someone made unwanted sexual comments or gestures towards you.
6. Someone stole something from you.
7. Someone threatened you with violence.

Analyses in the next section will include an examination of the overall victimization measure as well as each of the above items individually. For ease of reference, the items were respectively labeled 1) assault victimization, 2) bullying victimization, 3) cyber victimization, 4) psychological victimization, 5) sexual victimization, 6) theft victimization, 7) violent victimization.

INDEPENDENT VARIABLES

Measures of Low Self-Control

The measure of self-control used in this study is derived from Grasmick et al.'s (1993) self-control scale. The original Grasmick et al. (1993) scale includes 24 attitudinal items that measure dimensions of low self-control across six subscales, with four items each for impulsivity, risk-seeking behavior, simple task completion, self-centered views, temper, and a preference for physical activity. This current study used a 15-item modified scale that omitted measurement for a preference for physical activities, as this dimension has been found to be unrelated to measures of delinquent behavior (Arneklev et al., 1993; Piquero & Rosay, 1998). As with the original Grasmick et al. (1993) scale, the modified scale used here operationalized the dimensions of low self-control with Likert-scale responses (e.g. *strongly disagree* to *strongly agree*). The items included in the self-control measure were summed, with higher scores indicating lower levels of self-control in the respondent. This modified Grasmick et al. scale had a reliability score of .81, and included the following items:

1. I often do whatever brings me pleasure here and now, even at the cost of some distant goal.
2. I frequently try to avoid projects that I know will be difficult.
3. When things get complicated, I tend to quit or withdraw.
4. The things in life that are the easiest to do bring me the most pleasure.
5. I like to test myself every now and then by doing something a little dangerous.
6. Sometimes I will take a risk just for the fun of it.
7. I sometimes find it exciting to do things for which I might get in trouble.
8. Excitement and adventure are more important to me than security.

9. I try to look out for myself first, even if it means making things difficult for other people.
10. I'm not very sympathetic to other people when they are having problems.
11. If things I do upset people, it's their problem, not mine.
12. I will try to get the things I want even when I know it's causing problems for other people.
13. I lose my temper pretty easily.
14. Often, when I'm angry at people I feel more like hurting them than talking to them about why I am angry.
15. When I'm really angry, other people better stay away from me.

A second measure of self-control from Earls, Brooks-Gunn, Raudenbush, and Sampson (2005) will be used in analyses following the Grasmick et al. measures to check for the robustness of the low self-control effects. The measure is modified from the Project on Human Development in Chicago Neighborhoods (PHDCN). The PHDCN measure uses nine items to tap into a range of dimensions within self-control. Survey participants can respond to each item according to a Likert-type scale (1 = *not true*, 2 = *sometimes true*, 3 = *often true*). This measure had a reliability score of .74, and a number of previous studies have also found the PHDCN measure to be both valid and reliable (Gibson, 2009; Gibson, Sullivan, Jones, & Piquero, 2010). The respondents were asked to "Please tell us how well the following statements describe you or your behavior" across the following nine PHDCN items measuring low self-control:

1. I have trouble resisting temptation.
2. I often act on the spur of the moment.
3. I have self-control. (R)

4. I always like to make detailed plans before I do something. (R)
5. I like to do things that are fun even if they can get me into trouble.
6. I will try anything once.
7. I think school is a waste of time.
8. I try to do well at school. (R)
9. If I study hard, I will get good grades. (R)

Measures of L-RAT

The analyses here use several proxies to measure youth lifestyle, including delinquent peers, delinquent involvement and parental guardianship. Several studies have demonstrated the utility of using delinquent peers and delinquent involvement as measures of lifestyle (Schreck, Miller, & Gibson, 2003; Wilcox, Tillyer, and Fisher 2009; Tillyer, 2011). The findings of these studies, which indicate a significant relationship between victimization, delinquent peers, and involvement, illustrate that as youths engage in risky behaviors and surround themselves with others who engage in risky behaviors, they expose themselves to motivated offenders. Additionally, a number of studies have used social bonds, particularly parental social bonds, as a proxy for guardianship (Schreck and Fisher, 2004; Wilcox, Tillyer, and Fisher, 2009; Tillyer, Wilcox, and Gialospsos, 2010; Tillyer et al., 2011). It is assumed that when youths are close to their parents, their parents know what is happening in their lives (e.g. being bullied at school) and monitor their behavior more closely (i.e. direct social control). The data used here include a measure of parental social bonds that will be used as a proxy to capture the capable guardianship element of LRAT.

Delinquent peers. The respondents' exposure to delinquent peers was measured using a modified scaled from the National Youth Survey (NYS)—the NYS peer delinquency measure.

For the Saudi Arabian sample, the scale's Cronbach's alpha was .88. The respondents were given the following prompt: "The next set of questions are about your friends. Please tell us if none of them, some of them, or most of them have engaged in the following behaviors." Specifically, a Likert-scale was employed, where 1 = *none of them*, 2 = *some of them*, and 3 = *most of them*. The items included in the delinquent peers composite measure were summed, with higher scores indicating higher exposure to delinquent peers. The peer delinquency measure consisted of 11 delinquent behaviors:

1. Purposefully damaged or destroyed property that did not belong to them.
2. Smoked cigarettes.
3. Used marijuana, cannabis, or hashish.
4. Stolen something.
5. Hit or threatened to hit someone without any reason.
6. Used alcohol.
7. Sold illegal drugs.
8. Suggested you do something that was against the law.
9. Have gotten in trouble at school.
10. Have been in trouble with the police.
11. Have been in trouble with the religious authority.

Delinquent involvement. An existing scale from the NYS was modified and used to assess the respondents' level of delinquent involvement. The modified NYS scale includes 27 items that capture delinquent behaviors ranging from the trivial (making obscene phone calls) to the more serious (robbery, physical violence). The NYS delinquency measure asked the respondents: "Please circle the appropriate response indicating how well these statements

describe your behavior. The youths were provided Likert-type responses on a 3-point scale (not true/sometimes true/often true). The NYS delinquent involvement measure has been used in a number of studies to assess youth delinquency (Huizinga & Elliot, 1986, 1987; Lauritsen, Sampson, & Laub, 1991). The measure's Cronbach's alpha was .92. The items included in the delinquent involvement measure were summed, with higher scores indicating higher levels of delinquent behavior. Items within the NYS measure of delinquent involvement include:

1. I have purposefully damaged or destroyed property belonging to my parents or other family members.
2. I have stolen or tried to steal something worth more than US \$50.
3. I have knowingly bought, sold, or held stolen goods.
4. I have purposefully set fire to a building, a car, or other property, or tried to do so.
5. I have carried a hidden weapon.
6. I have stolen or tried to steal things.
7. I have attacked someone with the idea of seriously hurting or killing that person.
8. I have been involved in gang fights.
9. I have sold illegal drugs.
10. I have stolen money or other things from my parents or members of my family.
11. I hit or threatened to hit one of my parents.
12. I have deliberately hurt and injured a friend.
13. I have been loud, rowdy, or unruly in a public place.
14. I have sold pills.
15. I have tried to cheat someone by selling them something that was worthless or not what I said it was.

16. I have used force or threats to get money or things from people.
17. I have purposefully damaged or destroyed property that did not belong to me.
18. I have broken or tried to break into a building or vehicle to steal something.
19. I have begged for money or things from strangers.
20. I have made obscene telephone calls such as calling someone and saying dirty things.
21. I have snatched someone's purse or wallet or picked someone's pocket.
22. I have used alcoholic beverages, beer, wine, or hard liquor.
23. I have used tobacco or cigarettes.
24. I have used marijuana, cannabis, or hashish.
25. I have used hard drugs such as heroin or cocaine.
26. I have used medicine that was not prescribed to me such as Captagon.
27. I have used other substances to get high.

Parental guardianship. The parental guardianship measure is modified from the Project on Human Development in Chicago Neighborhoods (PHDCN). To develop the parental guardianship measure in this study, ten items were pulled from the PHDCN measures that were included in the survey administered to Saudi youths. These items measure bonds (the presence or lack thereof), direct control, and parental monitoring of children. Similar measures of parental guardianship have been used in a number of studies as proxies for guardianship in L-RAT (Schreck and Fisher, 2004; Wilcox, Tillyer, and Fisher, 2009; Tillyer, Wilcox, and Gialospsos, 2010; Tillyer et al., 2011). The measure's Cronbach's alpha is .76. Survey participants were asked to respond to "How well do the following statements describe you and your family?" and were provided responses according to a Likert-type scale (1 = *not true*, 2 = *sometimes true*, 3 = *often true*). The items included in the parental guardianship composite measure were summed,

with higher scores indicating higher levels of parental guardianship. Items within the PHDCN measure of parental guardianship include:

1. Family members sometimes get so angry they throw things. (R)
2. Family members often criticize each other. (R)
3. Family members sometimes hit each other. (R)
4. There is a strong emphasis on following rules in our family.
5. My parents know the names of my friends.
6. I like to do things with my family.
7. I enjoy talking with my family.
8. My parents know who I am going out with when I go out with other boys or girls.
9. I feel close to my family.
10. Members of my family have been in trouble with the police or have been arrested. (R)

Control Variables

Several demographic variables were controlled for in our study, including respondent's age, mother and father's level of education (1 = less than high school; 2 = high school; 3 = university level), gender (0 = female; 1 = male), self-reported GPA (A, B, C, or D), and household size. Several changes were made to the items to maintain cultural applicability and to account for differences in language between English and Arabic. For example, females did not have the right to drive motor vehicles at the time of this study, and so questions regarding use of motor vehicles were not presented to female respondents. In addition, certain questions were modified to address involvement with the Saudi religious police and to capture drug use that is specific to the Middle East, such as Captagon (a brand name of the narcotic fenethylline).

CONCLUSION

This study draws from a unique population about which social scientists know little. The following section will outline the statistical analyses conducted to learn more about Saudi Arabian victimization experiences. A number of validated and reliable measures will be used to analyze predictors of victimization for young Saudi males and females. Statistical models will account for level of self-control, delinquent involvement, delinquent peers, and parental attachment of respondents. Control variables included in the models will encompass the respondents' age, level of education of the respondents' parents, self-reported GPA, and household size of the respondent.

Chapter 3

RESULTS

This dissertation explores the predictors of youth victimization in Saudi Arabia. Saudi Arabian culture differs in many way from that of the United States. Given this distinct context, the current analyses drawing on a sample of Saudi youths allows for a test of the general effects of self-control on victimization. Based on previous theory (Schreck, 1999) and research (Pratt et al., 2014), the thesis is assessed that, regardless of differences in population and culture, self-control will remain a significant predictor of victimization experiences.

In this chapter, the first section examines how self-control and other key independent variables measuring L-RAT are correlated with victimization. Descriptive statistics on the extent of victimization for the sample and broken down by gender also are presented. In the second section, the independent effects of self-control are examined in a series of multivariate analyses that control for three L-RAT measures and for control variables. The analyses include overall victimization and types of victimization. Finally, the third section replicates these analyses by gender, exploring whether self-control and other variables in the model have different effects for males and females.

DESCRIPTIVE STATISTICS

Table 2 demonstrates the bivariate correlations between the dependent and independent variables. Correlations are shown across the entire sample, as well as for just males and just females in the sample. The measure of self-control is positively and significantly correlated at the .01 level with victimization for the entire sample, within just the male respondents, and within just the female respondents. This relationship indicates that lower levels of self-control

(determined by higher scores on the self-control scale) are significantly related to higher levels of victimization for both males and females.

The measures of delinquent involvement and delinquent peers are also positively and significantly related to victimization across all groups. The relationship between delinquent involvement and victimization is stronger for females than for males (.48 for females and .35 for males); however, it is significant at the .01 level for both groups. The relationship between delinquent peers and victimization is also stronger for females than for males (.49 for females and .38 for males), but they are both again significant at the .01 level. Each of these relationships indicates that increased levels of delinquent involvement, as well as increased exposure to delinquent peers are significantly related to higher levels of victimization for males and females.

The measure of parental guardianship varies from the previously reviewed measures in that it is significantly related to victimization for the entire sample and for females, but the relationship is nonsignificant for males. For the entire sample and for females, the relationship between parental guardianship and victimization is negatively and significantly related ($p < .01$). This relationship indicates that, as parental guardianship increases, risk of victimization decreases. There is a very weak, positive, nonsignificant relationship between parental guardianship and victimization for males, indicating that parental guardianship is minimally related to victimization for males in this sample.

Table 3.1. Bivariate Correlations of Dependent and Independent Variables

	Victimization			Age	Mother's Education	Father's Education	GPA	Family Size	Gender
	Combined	Male	Female						
Victimization				.097**	-.060*	.020	-.014	-.046	.088**
Low Self-Control	.283**	.234**	.382**	.011	-.098**	-.040	-.067*	-.045	-.039
Delinquent Involvement	.395**	.349**	.482**	.146**	-.064*	-.066*	.199*	.021	.203**
Peer Delinquency	.411**	.379**	.491**	.111**	-.095**	-.041	.127**	.079**	.330**
Parental Guardianship	-.133**	.005	-.286**	-.089**	-.071*	-.033	-.096**	-.013	-.300**

** Correlation is significant at the 0.01 level (2-tailed)

* Correlation is significant at the 0.05 level (2-tailed)

Tables 3.2 and 3.3 present the victimization frequencies of the sample. Table 3.2 shows self-reported victimization of the entire sample, and Table 3.3 presents victimization experiences by sex. Table 3.2 indicates the most common form of victimization of the entire sample is theft, with over 52% of surveyed youth indicating that someone had stolen something from them. The second most common victimization type experienced by the sample was psychological victimization, with nearly 40% of the youth in the sample having had rumors or lies spread about them. The least common form of victimization was cyber bullying; over 82% of the sample responded that they had never been the target of mean emails, text messages, or Internet posts. Physical and assaultive-type violence fell somewhere in the middle, with 20-30% of the sample indicating they had been punched, kicked, choked, beaten up, or had been threatened with violence. For most of the victimization types, only a small percent of the sample (3 - 6.5%) indicated they were victimized often, however 11% of survey respondents reported they were often the victim of theft.

Table 3.3 shows victimization experiences of the sample by sex. Males reported higher levels of victimization across five of the victimization types: assault, bullying, cyber, sexual, and violent victimization. Females reported higher levels of victimization than males for theft and psychological victimization. T-scores were negative and significant for four of the victimization types, indicating that males are significantly more likely than females to experience assault, cyber, sexual, and violent victimization types.

Table 3.2: Victimization Frequencies of Sample

	<i>Mean</i>	<i>Std. Dev.</i>	Never (1)		Sometimes (2)		Often (3)	
			<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Assault: You were punched, kicked, choked, or beaten up	1.29	.542	756	75.6%	200	20.0%	44	4.4%
Bullying: You were teased, picked on, made fun of, or bullied	1.33	.551	716	71.6%	242	24.2%	42	4.2%
Cyber: Someone sent you mean emails, text messages, or posted something bad about you on the internet	1.22	.512	824	82.4%	131	13.1%	45	4.5%
Psychological: Someone spread rumors or lies about you	1.44	.614	627	62.7%	308	30.8%	65	6.5%
Sexual: Someone made unwanted sexual comments or gestures towards you	1.30	.551	742	74.2%	212	21.2%	46	4.6%
Theft: Someone stole something from you	1.64	.674	475	47.5%	414	41.4%	111	11.1%
Violent: Someone threatened you with violence	1.23	.491	798	79.8%	171	17.1%	31	3.1%

Table 3.3: Victimization Frequencies by Sex

	Assault		Bullying		Cyber		Psychological		Sexual		Theft		Violent	
	<i>Male</i>	<i>Female</i>	<i>Male</i>	<i>Female</i>	<i>Male</i>	<i>Female</i>	<i>Male</i>	<i>Female</i>	<i>Male</i>	<i>Female</i>	<i>Male</i>	<i>Female</i>	<i>Male</i>	<i>Female</i>
Never	356 (71.2%)	400 (80.0%)	355 (71.0%)	361 (72.2%)	395 (79.0%)	429 (85.8%)	315 (63.0%)	312 (62.4%)	359 (71.8%)	383 (76.6%)	265 (53.0%)	210 (42.0%)	375 (75.0%)	423 (84.6%)
Sometimes	117 (23.4%)	83 (16.6%)	120 (24.0%)	122 (24.4%)	71 (14.2%)	60 (12.0%)	141 (28.2%)	167 (33.4%)	106 (21.2%)	106 (21.2%)	164 (32.8%)	250 (50.0%)	102 (20.4%)	69 (13.8%)
Often	27 (5.4%)	17 (3.4%)	25 (5.0%)	17 (3.4%)	34 (6.8%)	11 (2.2%)	44 (8.8%)	21 (4.2%)	35 (7.0%)	11 (2.2%)	71 (14.2%)	40 (8.0%)	23 (4.6%)	8 (1.6%)
Mean	1.34	1.23	1.34	1.31	1.28	1.16	1.46	1.42	1.35	1.26	1.61	1.66	1.30	1.17
Standard Deviation	.578	.498	.570	.532	.581	.426	.652	.573	.607	.485	.723	.621	.549	.416
T-Score	-3.167*		-.803		-3.539*		-1.031		-2.763*		1.127		-4.090*	

ASSESSING THE EFFECTS OF LOW SELF-CONTROL: OVERALL MULTIVARIATE MODELS

Table 3.4 presents the findings of the OLS regression of self-control on the overall victimization measure for the entire sample. Two models were estimated. In Model 1, low self-control and the control measures (gender, age, GPA, household size, mother's and father's education) were regressed on overall victimization. Both low self-control and gender were significant predictors of victimization ($\beta = .366$ and $\beta = .189$, respectively). No other control measures were significant in Model 1. L-RAT measures were added into Model 2. Including the L-RAT measures in the model increased the R^2 from .164 to .265. Low self-control remained a significant predictor of victimization. However, its effect decreased from $\beta = .366$ to .219, suggesting that the L-RAT variables may have partially mediated the impact of low self-control on overall victimization. All three L-RAT variables—delinquent involvement, delinquent peers, and parental guardianship—were statistically significant. In Model 2, the effect of being male was rendered nonsignificant. As in Model 1, no other control measures were statistically significant.

ASSESSING THE EFFECTS OF LOW SELF-CONTROL: INDIVIDUAL VICTIMIZATION ANALYSIS

Tables 3.6 through 3.12 present the findings of logistic regression on each measure of victimization included in this study—assault, bullying, cyber, psychological, sexual, theft, and violent victimization. Given the small percent of respondents who indicated they experienced any sort of victimization, it was more appropriate to use logistic regression for these analyses. Two models were estimated for each analysis. In Model 1, low self-control and the control measures (gender, age, GPA, household size, mother's and father's education) were regressed on

Table 3.4. OLS Regression of Low Self-Control and L-RAT Variables on Overall Victimization

Independent Variables	Model 1			Model 2		
	b	β	p	b	β	p
<i>Central Variable</i>						
Low Self-Control	.184	.366	.000	.110	.219	.000
<i>L-RAT Variables</i>						
Delinquent Involvement				.162	.245	.000
Delinquent Peers				.058	.133	.001
Parental Guardianship				-.075	-.115	.000
<i>Control Variables</i>						
Gender (1 = Male)	1.012	.189	.000	.185	.035	.321
Age	.165	.061	.065	.100	.037	.240
School GPA	-.125	-.037	.278	-.160	-.047	.139
Father's Education	.174	.052	.135	.167	.050	.126
Mother's Education	-.185	-.055	.119	-.154	-.064	.168
Household Size	-.046	-.044	.159	-.072	-.069	.020
R ²	.413			.273		
Adjusted R ²	.164			.265		

Table 3.5. OLS Regression of PHDCN Low Self-Control and L-RAT Variables on Overall Victimization

Independent Variables	Model 1			Model 2		
	b	β	p	b	β	p
<i>Central Variable</i>						
PHDCN Low Self-Control	.217	.282	.000	.143	.186	.000
<i>L-RAT Variables</i>						
Delinquent Involvement				.075	.171	.000
Delinquent Peers				.163	.027	.000
Parental Guardianship				-.097	-.149	.000
<i>Control Variables</i>						
Gender (1 = Male)	1.130	.211	.000	.186	.035	.325
Age	.138	.051	.137	.064	.024	.451
School GPA	.066	.019	.583	-.051	-.015	.646
Father's Education	.101	.031	.401	.123	.037	.266
Mother's Education	-.155	-.046	.208	-.132	-.040	.242
Household Size	-.057	-.055	.092	-.078	-.076	.011
R ²	.336			.513		
Adjusted R ²	.105			.254		

each victimization measure. In Model 2 of each analysis, L-RAT measures were added into the estimation. Table 3.6 presents the findings from the logistic regression of low self-control and L-RAT variables on assault victimization. Low self-control is a significant predictor of assault victimization in both Model 1 and Model 2. School GPA and mother's education are also significant in both models. In Model 1, gender is a significant predictor of assault victimization. In Model 2, the effects of low self-control are slightly mediated through the included L-RAT variables ($B = .103$ to $B = .069$). Of the three L-RAT variables, both delinquent peers and parental guardianship are statistically significant.

Table 3.7 presents the findings of the logistic regression of low self-control and L-RAT variables on bullying victimization. As with the previous analysis, school GPA and mother's education are significant across both Models 1 and 2. Low self-control is a statistically significant predictor of bullying victimization in Model 1; however, the measure is rendered non-significant with the addition of the L-RAT variables in Model 2. Of the three L-RAT variables added into Model 2, delinquent peers and parental guardianship are significant.

The results of the logistic regression of low self-control and L-RAT variables on cyber victimization are presented in Table 3.8. In Model 1, low self-control is a significant predictor of cyber victimization. Of the control variables, gender and father's level of education are also significant. With the addition of the L-RAT variables in Model 2, the effects of low self-control are mediated (from $B = .108$ to $B = .070$). Gender is rendered non-significant. In Model 2, household size becomes significant, and father's education remains significant. L-RAT variables delinquent peers and parental guardianship are also significant predictors of cyber victimization.

Table 3.6. Logistic Regression of Low Self-Control and L-RAT Variables on Assault Victimization

Independent Variables	<u>Model 1</u>			<u>Model 2</u>		
	<i>B</i>	<i>SE B</i>	<i>Exp(B)</i>	<i>B</i>	<i>SE B</i>	<i>Exp(B)</i>
<i>Central Variable</i>						
Low Self-Control	.103***	.016	1.108	.069***	.017	1.072
<i>L-RAT Variables</i>						
Delinquent Involvement				.024	.017	1.024
Delinquent Peers				.082***	.026	1.086
Parental Guardianship				-.080***	.021	.923
<i>Control Variables</i>						
Gender (1 = Male)	.798***	.178	2.221	.313	.200	1.367
Age	.081	.090	1.084	.044	.093	1.045
School GPA	-.240*	.114	.786	-.264*	.119	.768
Father's Education	.078	.112	1.081	.067	.116	1.069
Mother's Education	-.313**	.117	.731	-.309**	.120	.734
Household Size	-.009	.031	1.009	-.005	.033	.995
<i>Constant</i>	-4.730**			-2.607		
<i>Nagelkerke r²</i>		.120			.183	
<i>Cox & Snell r²</i>		.082			.125	
<i>X²</i>		73.849			115.177	
<i>df</i>		7			10	

Victimization Item: You were punched, kicked, choked, or beaten up.

*p<.05; **p<.01, ***<.001

Table 3.7. Logistic Regression of Low Self-Control and L-RAT Variables on Bullying Victimization

Independent Variables	<u>Model 1</u>			<u>Model 2</u>		
	<i>B</i>	<i>SE B</i>	<i>Exp(B)</i>	<i>B</i>	<i>SE B</i>	<i>Exp(B)</i>
<i>Central Variable</i>						
Low Self-Control	.057***	.014	1.059	.025	.016	1.025
<i>L-RAT Variables</i>						
Delinquent Involvement				.014	.016	1.014
Delinquent Peers				.085***	.025	1.088
Parental Guardianship				-.060**	.020	.942
<i>Control Variables</i>						
Gender (1 = Male)	.293	.163	1.340	-.150	.185	.861
Age	.163*	.083	1.177	.140	.085	1.151
School GPA	-.269*	.107	.764	-.289**	.110	.749
Father's Education	.062	.105	1.064	.047	.108	1.048
Mother's Education	-.271*	.108	.763	-.262*	.111	.769
Household Size	-.042	.030	.959	-.058	.031	.943
<i>Constant</i>	-4.167**			-2.640		
<i>Nagelkerke r^2</i>		.057			.109	
<i>Cox & Snell r^2</i>		.041			.077	
χ^2		35.870			69.329	
<i>df</i>		7			10	

Victimization Item: You were teased, picked on, made fun of, or bullied.

* $p < .05$; ** $p < .01$, *** $p < .001$

Table 3.8. Logistic Regression of Low Self-Control and L-RAT Variables on Cyber Victimization

Independent Variables	<u>Model 1</u>			<u>Model 2</u>		
	<i>B</i>	<i>SE B</i>	<i>Exp(B)</i>	<i>B</i>	<i>SE B</i>	<i>Exp(B)</i>
<i>Central Variable</i>						
Low Self-Control	.108***	.017	1.114	.070***	.019	1.073
<i>L-RAT Variables</i>						
Delinquent Involvement				.017	.018	1.017
Delinquent Peers				.098***	.027	1.103
Parental Guardianship				-.063**	.024	.939
<i>Control Variables</i>						
Gender (1 = Male)	.849***	.201	2.336	.360	.225	1.433
Age	-.051	.103	.950	-.103	.108	.902
School GPA	-.134	.128	.875	-.150	.132	.861
Father's Education	.337**	.128	1.400	.343**	.132	1.410
Mother's Education	-.222	.129	.801	-.198	.133	.821
Household Size	-.074	.039	.929	-.098*	.040	.906
<i>Constant</i>	-3.367			-1.441		
<i>Nagelkerke r²</i>		.119			.175	
<i>Cox & Snell r²</i>		.074			.108	
<i>X²</i>		66.032			98.924	
<i>df</i>		7			10	

Victimization Item: Someone sent you mean emails, text messages, or posted something bad about you on the Internet.

*p<.05; **p<.01, ***<.001

Table 3.9 presents the findings from the logistic regression of low self-control and L-RAT variables on psychological victimization. As with the previous analyses, low self-control is a statistically significant predictor of psychological victimization in both Models 1 and 2. In Model 1, school GPA is also a significant predictor of psychological victimization. The effects of low self-control and GPA are diminished slightly in Model 2 with the addition of the L-RAT variables. Of the three L-RAT variables added into Model 2, only delinquent peers is a significant predictor of psychological victimization.

The results of the logistic regression of low self-control and L-RAT variables on sexual victimization are presented in Table 3.10. In Model 1, low self-control is a significant predictor of sexual victimization, as are a number of control variables, including gender, age, and school GPA. In Model 2, low self-control remains a significant, if mediated, predictor ($B = .128$ to $B = .097$). Age and school GPA also remain significant in Model 2. Gender is rendered non-significant with the addition of the three L-RAT variables into the model. Of the L-RAT variables, delinquent peers and parental guardianship are significant predictors of sexual victimization.

Table 3.11 presents the findings of the logistic regression of low self-control and L-RAT variables on theft victimization. Low self-control is the only significant variable in Model 1. In Model 2, low self-control remains significant. Delinquent peers is the only L-RAT variable that is significant. None of the control measures were significant in Models 1 or 2.

In Table 3.12, the results are presented from the logistic regression of low self-control and L-RAT variables on violent victimization. In Model 1, low self-control is a significant predictor of violent victimization, as are gender, age, and father's education. When L-RAT

Table 3.9. Logistic Regression of Low Self-Control and L-RAT Variables on Psychological Victimization

Independent Variables	<u>Model 1</u>			<u>Model 2</u>		
	<i>B</i>	<i>SE B</i>	<i>Exp(B)</i>	<i>B</i>	<i>SE B</i>	<i>Exp(B)</i>
<i>Central Variable</i>						
Low Self-Control	.101***	.014	1.106	.080***	.016	1.083
<i>L-RAT Variables</i>						
Delinquent Involvement				.015	.017	1.015
Delinquent Peers				.069**	.024	1.072
Parental Guardianship				.006	.019	1.006
<i>Control Variables</i>						
Gender (1 = Male)	.206	.156	1.229	-.046	.174	.955
Age	-.032	.079	.969	-.042	.079	.959
School GPA	.273**	.099	1.313	.264**	.101	1.303
Father's Education	.091	.100	1.095	.090	.102	1.095
Mother's Education	.005	.102	1.005	.034	.104	1.035
Household Size	-.019	.028	.982	-.028	.029	.972
<i>Constant</i>	-2.958*			-3.728*		
<i>Nagelkerke r²</i>		.101			.122	
<i>Cox & Snell r²</i>		.075			.091	
<i>X²</i>		67.354			81.930	
<i>df</i>		7			10	

Victimization Item: Someone spread rumors or lies about you.

*p<.05; **p<.01, ***<.001

Table 3.10. Logistic Regression of Low Self-Control and L-RAT Variables on Sexual Victimization

Independent Variables	<u>Model 1</u>			<u>Model 2</u>		
	<i>B</i>	<i>SE B</i>	<i>Exp(B)</i>	<i>B</i>	<i>SE B</i>	<i>Exp(B)</i>
<i>Central Variable</i>						
Low Self-Control	.128***	.016	1.136	.097***	.018	1.102
<i>L-RAT Variables</i>						
Delinquent Involvement				.007	.017	1.007
Delinquent Peers				.106***	.026	1.112
Parental Guardianship				-.110***	.022	.896
<i>Control Variables</i>						
Gender (1 = Male)	.592***	.173	1.807	.039	.197	1.040
Age	.256**	.091	1.292	.244**	.095	1.276
School GPA	-.268*	.115	.765	-.289*	.120	.749
Father's Education	.164	.112	1.178	.145	.117	1.156
Mother's Education	.022	.113	1.022	.046	.119	1.047
Household Size	-.022	.032	.978	-.040	.034	.961
<i>Constant</i>	-8.843***			-6.233***		
<i>Nagelkerke r²</i>		.147			.230	
<i>Cox & Snell r²</i>		.102			.160	
<i>X²</i>		93.230			150.644	
<i>df</i>		7			10	

Victimization Item: Someone made unwanted sexual comments or gestures towards you.

*p<.05; **p<.01, ***<.001

Table 3.11. Logistic Regression of Low Self-Control and L-RAT Variables on Theft Victimization

Independent Variables	<u>Model 1</u>			<u>Model 2</u>		
	<i>B</i>	<i>SE B</i>	<i>Exp(B)</i>	<i>B</i>	<i>SE B</i>	<i>Exp(B)</i>
<i>Central Variable</i>						
Low Self-Control	.096***	.015	1.101	.078***	.016	1.081
<i>L-RAT Variables</i>						
Delinquent Involvement				.009	.017	1.009
Delinquent Peers				.073**	.025	1.076
Parental Guardianship				.025	.018	1.025
<i>Control Variables</i>						
Gender (1 = Male)	-.065	.154	.937	-.254	.170	.775
Age	-.022	.077	.978	-.020	.078	.981
School GPA	-.034	.099	.967	-.046	.100	.955
Father's Education	-.048	.100	.953	-.050	.101	.951
Mother's Education	-.118	.102	.889	-.085	.103	.919
Household Size	-.002	.028	.998	-.012	.028	.989
<i>Constant</i>	-1.220			-2.690		
<i>Nagelkerke r^2</i>		.081			.101	
<i>Cox & Snell r^2</i>		.061			.075	
χ^2		53.915			67.729	
<i>df</i>		7			10	

Victimization Item: Someone stole something from you.

*p<.05; **p<.01, ***<.001

Table 3.12. Logistic Regression of Low Self-Control and L-RAT Variables on Violent Victimization

Independent Variables	<u>Model 1</u>			<u>Model 2</u>		
	<i>B</i>	<i>SE B</i>	<i>Exp(B)</i>	<i>B</i>	<i>SE B</i>	<i>Exp(B)</i>
<i>Central Variable</i>						
Low Self-Control	.074***	.016	1.077	.041*	.018	1.042
<i>L-RAT Variables</i>						
Delinquent Involvement				.005	.017	1.005
Delinquent Peers				.093***	.026	1.097
Parental Guardianship				-.081***	.022	.922
<i>Control Variables</i>						
Gender (1 = Male)	.832***	.185	2.298	.373	.206	1.453
Age	.234*	.097	1.264	.216*	.101	1.242
School GPA	-.133	.120	.875	-.133	.123	.875
Father's Education	.370**	.122	1.448	.367**	.126	1.443
Mother's Education	-.078	.122	.925	-.049	.126	.952
Household Size	-.049	.035	.952	-.071	.036	.932
<i>Constant</i>	-7.858***			-5.740**		
<i>Nagelkerke r²</i>		.103			.161	
<i>Cox & Snell r²</i>		.067			.105	
<i>X²</i>		59.826			95.372	
<i>df</i>		7			10	

Victimization Item: Someone threatened you with violence.

*p<.05; **p<.01, ***<.001

variables are added into Model 2, gender becomes non-significant. Age and father's education remain significant. Low self-control, as in all other analyses, remains significant in both Model 1 and Model 2. Of the L-RAT measures added into the model, delinquent peers and parental guardianship are both significant predictors of violent victimization.

ASSESSING THE EFFECTS OF LOW SELF-CONTROL: GENDER MULTIVARIATE ANALYSIS

Table 3.4 presents the findings of the OLS regression of self-control on the overall victimization measure by gender. For both males and females, two models are estimated. Comparing Model 1 between males and females, low self-control is a significant predictor of the overall victimization measure for both genders. For males in Model 1, school GPA and mother's education are also significant predictors of victimization. For females in Model 1, age is the only other significant predictor of victimization. The R^2 value for Model 1 for the male and female analyses are similar, with the male $R^2 = .170$ and the female $R^2 = .167$.

In Model 2, low self-control remains a significant predictor of victimization for males and females. For both genders, the effect of self-control decreases from Model 1 to Model 2 (males $\beta = .364$ to $\beta = .228$; females $\beta = .394$ to $\beta = .207$). In Model 2 for males, mother's education remains a significant predictor of victimization. Household size gains significance from Model 1 to Model 2 for males, and of the L-RAT variables added to the model, delinquent peers is a significant predictor of male victimization. In Model 2 for females, age remains a significant predictor of victimization. All three of the L-RAT variables added to the model (delinquency, delinquent peers, and parental guardianship) are significant predictors of female

Table 3.13. OLS Regression of Low Self-Control and L-RAT Variables on Overall Victimization by Gender

Independent Variables	Males				Females			
	Model 1		Model 2		Model 1		Model 2	
	b	β	b	β	b	β	b	β
<i>Central Variable</i>								
Low Self-Control	.201	.364***	.126	.228***	.168	.394***	.088	.207***
<i>L-RAT Variables</i>								
Delinquent Involvement	---	---	.042	.104	---	---	.129	.230***
Delinquent Peers	---	---	.140	.217***	---	---	.206	.235***
Parental Guardianship	---	---	-.063	-.082	---	---	-.075	-.138***
<i>Control Variables</i>								
Age	.100	.027	.022	.006	.240	.117**	.183	.090*
School GPA	-.406*	-.108	-.351	-.094	.126	.040	.019	.006
Father’s Education	.190	.050	.253	.067	.201	.074	.053	.020
Mother’s Education	-.629**	-.160	-.477	-.121*	.144	.055	.081	.031
Household Size	-.094	-.083	-.140	-.123**	.037	.042	.029	.033
R ²	.170		.243		.167		.347	
Adjusted R ²	.157		.226		.156		.334	
*p<.05; **p<.01, ***<.001								

victimization. The R^2 values for Model 2 are less similar between males and females than for Model 1, with an R^2 value of .243 for males and an R^2 value of .347 for females.

Finally, a difference of coefficients test was used to identify significant differences between males and females in Model 2. Of the theoretical variables included in the model, significant differences between males and females were found only for delinquent involvement. Significant differences were also found for mother's level of education and household size. By contrast, no significant differences were found for low self-control and for the L-RAT measures of delinquent peers and parental guardianship.

CONCLUSION

This chapter estimated the effects of low self-control and L-RAT variables on victimization experiences of this study's sample. Through linear and logistic regression analyses, the data support the generality of low self-control as a ubiquitous predictor of victimization. Low self-control was significantly related to the overall victimization measure for the entire sample, as well as for males and females separately. Of the seven victimization items comprising the overall victimization composite measure, all but one victimization type (bullying victimization) were significantly predicted by low self-control. Of the L-RAT variables, delinquent peers was a significant predictor of victimization in every estimation. Parental guardianship and delinquent involvement were significant in a number of models, with delinquent involvement having the least explanatory value in this sample's victimization experiences. While low self-control was significant in nearly every model, the effects were diminished slightly with the addition of the L-RAT variables, indicating a possible mediation effect. The relationship between low self-control and L-RAT variables will be explored further

in the next chapter, where the theoretical, policy, and research implications of these findings will be discussed.

Chapter 4

DISCUSSION

There are two primary bodies of research regarding youth victimization: victimization that occurs within the schools setting (such as school violence and bullying victimization), and victimization that occurs outside of the school. School violence and bullying victimization can range from physical to verbal abuse. Victimization outside of the school can include victimization within the home, such as neglect or abuse at the hands of a parent, caregiver, or sibling. This body of research also includes more typical “street crimes”, including theft or assault. A number of surveys have tried to capture the extent of American youths’ victimization at home, in public, and in the school setting. Through these instruments, researchers have demonstrated that the victimization of young people is prevalent and warrants attention within the United States (Finkelhor et al., 2011; Truman & Morgan, 2006; Finkelhor and Ormrod, 2000). School violence and bullying research is extensive within the U.S. and demonstrates that youths experience a host of victimization types within the school environment, from verbal abuse to physical assault (Musu-Gillette et al., 2017; Kann et al., 2016; Lessne and Yanez, 2016; Neiman et al., 2015).

Internationally, we find that youths have similar victimization experiences as those in America. A number of studies have identified youth victimization in a variety of contexts, from European countries similar in culture and economy to the United States, to Asian and even Middle Eastern populations (Junger-Tas et al., 2010, Enzmann et al., 2010; van Dijk et al., 2007). Additionally, cross-national studies demonstrate that school victimization and bullying is problematic not only within the United States, but also in countries worldwide (Deryol, et al., 2017; Benbenishty & Astor, 2012; Due et al., 2009; Denmark et al, 2005; Due et al., 2005; Smith

et al., 1999). Direct comparisons between victimization in the United States and international contexts are difficult due to differences in definitions and measurement of crime and victimizations, however it is clear that youths are victimized worldwide.

In addition to examining the prevalence of various crime types that youth may be subjected to, it is also important to consider the variation within youths' victimization experiences. Some youths are victimized at higher levels than are others, and it is a dimension of this research to determine why those differences exist. This dissertation explores each of these issues within a unique social context where research is limited, with a sample of Saudi Arabian youth. Further, this paper explores the key issue of whether theories of victimization developed by Western crime scholars are applicable to victimization in Saudi Arabia. In particular, this research explores the generality of low self-control and lifestyle-routine activity theory within a Saudi Arabian population.

YOUTH VICTIMIZATION IN SAUDI ARABIA

The lives of young people in Saudi Arabia are defined in large part by heavy social constraints placed on them by the Saudi government. Extracurricular activities are tightly regulated, with only government-sponsored athletics available, no bars or clubs, and until very recently, no movie theaters in Saudi Arabia. Males and females remain segregated in almost every way outside the home, with Saudi females facing even greater social restrictions than Saudi males. The conservative socialization of Saudi citizens is derived from the country's deep roots in Islam. Government and religion are closely intertwined, with Saudi's religious police ever-present to enforce religious laws and codes.

With such a structured society, it would be easy to expect that victimization within Saudi Arabia is minimal. However, this research and a small handful of additional studies have

revealed that Saudi youths both engage in deviant behavior and experience victimization as do youths in other contexts. Beaver et al.'s (2015) study of young Saudis identified youths who engaged in smoking, drinking, and other illegal drug use despite potentially severe responses from the Saudi criminal justice system. In another study, Ramisetty-Mikler and Almakadma (2016) found that over a fifth of their surveyed youths engaged in risky "tafheet" activities while driving. In regards to victimization, the private lives of Saudi families have the potential to shelter domestic crimes from the public eye, and sexual assaults often go unreported for fear of reprisal for the victim (Haddad, 2017). Additionally, a 2012 study of Saudi Arabian youths reported that a third of young Saudis had been exposed to physical violence in the past year (AlBuhairan et al., 2017).

In sum, despite stark differences in culture, it appears that Saudi Arabian youths may become victimized regardless of social constraints. Just as in the United States, youths engage in activities that are considered risky, and they experience victimization both at home and at school. Youths are victimized across social contexts, which begs the notion of generality. Can theories of victimization within Western research explain victimization in other contexts? Given the similarities between victimization experiences, it follows that victimization theories would also cut across different populations.

THE GENERALITY OF SELF-CONTROL THEORY REVISITED

A key issue in criminology is the extent to which theories are "general" and thus apply across people (e.g., gender) and social contexts. The generality thesis was set forth most powerfully by Gottfredson and Hirschi (1990) in their *A General Theory of Crime*. In this work, Gottfredson and Hirschi (1990) proposed that self-control "explains all crime, at all times" (p. 117) and is "for all intents and purposes, *the* individual level cause of crime" (p. 232, emphasis

in original). In addition to criminal activities, self-control is also predictive of analogous and “risky” behaviors, such as drinking, driving without a seatbelt, engaging in risky sexual behaviors, or smoking.

There are two propositions at the core of Gottfredson and Hirschi’s (1990) general theory of crime: first, the level of self-control a person possesses is established early in childhood. The second core component of self-control theory is that, once a child’s level of self-control has been established, it remains relatively stable throughout the individual’s life into adulthood (Gottfredson and Hirschi, 1990). It is important to note that simply possessing low levels of self-control is not enough to facilitate the occurrence of crimes and analogous behaviors. Low self-control and a criminal opportunity must both be present for a crime to occur. However, because crime is typically simple to commit and requires no special skill or social learning, crime opportunities are pervasive. Accordingly, the main determinant in involvement in crime and analogous behaviors is the variation in the individual’s level of self-control (Gottfredson and Hirschi, 1990).

A large number of individual studies have supported low self-control as a cause of crime and analogous behaviors in the United States. Evans et al. (1997) and the 1997 Add Health data both demonstrated a significant relationship between low self-control and imprudent behaviors, from smoking, skipping work, driving fast, and public urination (Evans et al., 1997), to substance use, getting into fights, and engaging in disorderly conduct (Bearman, et al., 1997). More recently, Benda (2005) demonstrated a significant relationship between the effects of low self-control and alcohol consumption and drug use, even after controlling for numerous demographic and competing theoretical variables.

Two important meta-analyses have organized the pool of individual studies to make sense of the relationship between low self-control and crime and analogous behaviors. Notably, Pratt and Cullen (2000) found self-control to have “general” effects across the 21 studies included in their analysis (p. 947). Regardless of the sample characteristics, such as whether the sample was from the community or from an offender population, self-control remained a significant predictor of crime and analogous behavior (Pratt and Cullen, 2000). More recently, Vazsonyi et al. (2017) provided an extension of Pratt and Cullen’s (2000) work. Examining 99 studies with 319 effect sizes, Vazsonyi et al. (2017) found low self-control to be a consistent predictor of criminal and deviant behaviors, although they found mixed support for a general theory of crime.

Internationally, studies have demonstrated support of low self-control as a predictor of criminal and analogous behaviors. Low self-control has been shown to be a significant predictor of criminal behavior in many countries similar in culture to the United States, such as the Netherlands, Switzerland, Australia, Belgium, Canada, Germany, Great Britain, and Sweden, among others (Rebellion et al., 2008; Vazsonyi et al., 2001). The relationship between self-control has also been found in contexts very different from the United States, such as in China (Cheung and Cheung, 2008; 2010; Rebellion et al., 2008; Lu et al., 2013; Cheung, 2014; Weng, 2016), Japan (Vazsonyi et al., 2014), Thailand (Kerley et al., 2008), the Philippines (Barrera et al., 2005) and in South Korea (Cho, 2014; Yun et al., 2016).

In 1999, Schreck extended the general theory of crime by arguing that low self-control might be a cause not only of crime and deviant behavior, but also of victimization. Schreck’s extension of the self-control theory was borne from findings that highlighted the likelihood of victims to not only share characteristics (Mustaine and Tewksbury, 2000; Schreck, Wright, and Miller, 2002; Broidy et al., 2006), but often to be the same individual (Gottfredson, 1984; Jensen

and Brownfield, 1986; Lauritsen, Sampson, and Laub, 1991; Sampson and Lauritsen, 1990). In light of these findings, Schreck (1990) re-imagined the components of self-control theory to align with a theory of victimization.

Although Gottfredson and Hirschi (1990, pp. 89-91) viewed self-control as a unitary propensity, they had discussed the “elements of self-control”: impulsivity, insensitivity, propensity for physical vs. mental problem-solving, risk-taking, short-sighted, and nonverbal. Building on this discussion, Grasmick, Tittle, Bursik, and Arneklev (1993) identified six elements, which they combined to construct a classic measure of the construct. Schreck (1999) reasoned that these six elements could be used to probe how low self-control might increase victimization. These elements included the following: a lack of future orientation, a lack of empathy, low tolerance for frustration, a lack of diligence, a preference for physical rather than mental activity, and a preference for risk (Grasmick et al., 1993; Schreck, 1999).

While Schreck’s manipulation of the theory was compelling, his claim needed to be tested for empirical accuracy and to determine if low self-control’s general effects could be extended to victimization. In a meta-analysis of 66 studies, yielding 311 effect sizes, Pratt et al. (2014) confirmed the applicability of low self-control as a significant predictor of victimization. Despite variation in strength between bivariate and multivariate models and producing slightly weaker effects on victimization than offending, the effect on low self-control remained statistically significant across all studies (Pratt et al., 2014). Pratt et al. (2014, p. 101) found “general effects” throughout the wide array of studies included in their analysis. Despite differences in model specifications, research design, and sample characteristics, low self-control remained robust and significant for the sample of all studies.

In addition to the studies included in Pratt et al.'s meta-analysis, other studies have shown that the effects of low self-control have been found in a diversity of countries. Of particular note are the countries with cultures dissimilar to that of the United States. In this regard, several studies have found a significant relationship between low self-control and victimization in Chinese samples (Chui & Chan, 2015; Li, Zhang, & Wang, 2015; Ren et al., 2017; Schwartz, Chang, & Farver, 2001); in South Korean samples (Cho, 2016; Gover, Jennings, Tomsich, Park, & Rennison, 2011; Reyns, Woo, Lee, & Yoon, 2016); and in a Thai sample (Kerley, Xu, & Sirisunyaluck, 2008). This association also has been reported for a Turkish sample (Deryol et al., 2017; Deryol et al., 2018), which is particularly notable provided Turkey's cultural similarities and geographic proximity to Saudi Arabia.

The thrust of this thesis is to demonstrate the generality of low self-control as a predictor of victimization in a population where it has not been tested before, and in this context, the generality thesis is supported. Table 4.1 provides a summary of low self-control and types of victimization examined in this paper. Low self-control was a significant predictor of nearly every type of victimization in this study. In each of the models measuring effects on the overall victimization measure, low self-control was a significant predictor. This remained consistent even as males and females were examined separately, and when the Grasmick et al. (1993) scale was replaced with the PHDCN measure of low self-control. Six of the seven separate victimization measures were significantly predicted by low self-control, with the exception of bullying victimization.

The results of this study extend the generality of self-control into a previously understudied population. However, a key theoretical issue to consider is the effect of low self-control once competing theoretical variables are introduced into analysis. Research shows that other

Table 4.1. Summary of Low Self-Control and L-RAT Variables on Types of Victimization

<i>Types of Victimization</i>	Low Self-Control	Delinquent Involvement	Delinquent Peers	Parental Guardianship
Overall	X	X	X	X
Overall (PHDCN Low Self-Control)	X	X	X	X
Overall—Males	X		X	
Overall—Females	X	X	X	X
Assault	X		X	X
Bullying			X	X
Cyber	X		X	X
Psychological	X		X	
Sexual	X		X	X
Theft	X		X	
Violence	X		X	X

X indicates a significant relationship

theories have effects as well (e.g., social learning, routine activity, and lifestyle-routine activity theory) which cannot be ignored in pursuit of a reigning general theory of victimization. To explore these effects, three L-RAT variables were controlled for in this study: delinquent involvement, delinquent peers, and parental guardianship.

Of the L-RAT variables included in this dissertation, delinquent peers demonstrated the most consistent effect, as it was a significant predictor of all victimization types. Parental guardianship was a significant predictor of victimization in most of the models, however it was non-significant in the overall victimization model for males, and it did not significantly predict psychological or theft victimization in the individual victimization models. Delinquent involvement was the least consistent L-RAT variable, with a significant predictive ability in the overall victimization models for the entire sample using both the Grasmick et al. (1993) and PHDCN measures of low self-control. Delinquent involvement was also significant in predicting the overall victimization measure for females, but not for males, and it was not a significant predictor in any of the individual victimization models. Despite the effects of the L-RAT variables included in each model, low self-control maintained its effects on victimization. However, low self-control did not cause the L-RAT variables to be rendered nonsignificant.

The significance of self-control and delinquent involvement across nearly all statistical estimations in this study is worth noting, and it could easily be interpreted to be an indication of the victim-offender overlap. Youths with low self-control are more inclined to associate with delinquent peers, who in turn are likely to have low self-control. This suggests that youths who share common characteristics—such as low self-control—tend to spend time together and engage in similar activities. Both youths experience a higher likelihood of victimization than non-delinquent, higher self-control youths, as they open themselves up to criminal opportunity.

It is noteworthy that, even in varying contexts, these individual characteristics will be found within groups of similarly situated youths.

A final aspect of these analyses worth noting is the gender differences that exist across models. In the models measuring effects on the overall victimization measure, low self-control and all L-RAT variables were significant in the female-only model. For the male-only overall victimization model, just low self-control and delinquent peers were significant. While these effects support the generality of low self-control as a predictor of victimization, they also suggest that female lifestyles are more influential on victimization experiences than are male lifestyles. In particular, females are at higher risk of victimization when they are involved in delinquent behavior than are males who engage in delinquent activities. Additionally, weaker parental guardianship places females at higher risk of victimization than weaker guardianship does for males. In analyses of the entire sample, gender was nonsignificant in estimations of the overall victimization measure. In the individual victimization analyses, gender was significant in the assault, cyber, sexual, and violent victimization models. For each of these estimations, however, the effects of gender were rendered nonsignificant with the addition of L-RAT variables.

The thrust of this research is to extend the generality thesis in a previously under-studied population. Key findings suggest that the effects of low self-control are, indeed, general, affecting victimization among Saudi youths. However, the effects of L-RAT cannot be discounted in predicting victimization, as general effects were also displayed by the L-RAT variables included in analyses. These findings suggest that both models have value, and to accurately describe victimization experiences, both must be included in studies.

POLICY IMPLICATIONS

There are several policy implications that can be drawn from this research. In regards to the generality of low self-control, one policy implication is that crime and victimization prevention programs need to target youths with low self-control. Given the lack of extracurricular activities available to young Saudis, youths achieve a majority of their socialization through school. It follows that an early intervention within the school to address the needs of youths with low self-control makes the most sense. At the individual level, schools can provide teacher and parent training on establishing higher levels of self-control within youths, as well as education regarding characteristics and possible repercussions of low self-control.

At the system level, schools can help facilitate positive youth development by introducing extracurricular activities, or by embedding school curricula with non-academic activities that will contribute to positive youth development. In addition, expanding the availability of pro-social extracurricular activities could have a positive effect on reducing victimization for youths in Saudi Arabia. Providing structured activities outside of school hours could help damper the effects of delinquent peers while also extending guardianship, particularly for males who are not provided an escort at all times.

A number of programs targeting self-control in young children have produced positive results in the United States. Such programs are designed to improve youths' impulse control and strengthen their resolve against impulsive acts through skills development programs, cognitive coping strategies, videotape training or role-playing interventions, immediate and delayed rewards clinical interventions, and relaxation training sessions. A meta-analysis from Piquero and colleagues (2016) evaluated 41 studies on early self-control improvement programs.

Outcome studies demonstrated positive, statistically significant effects in self-control improvement for children who participated in early self-control improvement programs, compared with children who did not participate (Piquero, Jennings, Farrington, Diamond, and Gonzales, 2016).

In order to prevent victimization, risky activities need to be better understood and addressed. Saudi Arabia has already taken steps to address one of the riskiest activities favored by Saudi males: the dangerous driving activities known as tafheet. The Saudi government has launched a campaign against unsafe driving practices to educate the public on the dangers associated with the activity (Ramisetty et al., 2016). Similar campaigns can be undertaken to help educate the public about the lifestyles and situations that increase youths' exposure to crime victimization. In the United States, the campaign approach has been used to spread awareness around various types of risky activities, including drinking and driving, texting and driving, bullying, drug and tobacco use, and risky sexual behavior. A number of positive behavior changes have been seen as a result of these campaigns (Friedman, Kachur, Noar, & McFarlane, 2016)

FUTURE RESEARCH

While this thesis helps lay the foundation of victimization research in Saudi Arabia, there are a number of ways in which future research can aid in further understanding crime and victimization. First, it is important to test theories—whether of crime or victimization—cross-culturally. Most criminological theories have been constructed by Western scholars, and most delinquency studies have collected data from samples of Western youths. While much has been learned from these theories and samples, they do not consider cultural contexts, values, and priorities that may differ across societies. By extension, current research may not be capturing

the true predictors of crime or victimization. Studies such as this one from Saudi Arabia help to fill that gap, while at the same time demonstrating that predictors of victimization may be general and are not dictated by cultural nuances.

A critical aspect of learning more about under-studied populations is forging research relationships cross-culturally. Saudi Arabia is a very private society and is difficult to study due to a number of restrictions, from male/female segregation to considerable government oversight. The relationship established between specific Western and Saudi scholars was paramount to this study coming to fruition. It is imperative to continue forging such relationships in order to develop and expand the research community, particularly in more private societies such as Saudi Arabia.

In addition to cultivating relationships, it is also important to continue research once a connection has been made. In this particular study, general effects of low self-control and L-RAT were found. While this is a step forward for the criminological community, it is too early yet to make any definitive statement on the generalizability of the male and female sample to broader Saudi society. Saudi Arabia does not routinely conduct social science research or collect information that would facilitate such generalizability. It is possible for the sample used here to differ significantly from other Saudi populations, given that this study was not a completely random selection of individuals throughout Saudi Arabia. Instead, the sample was obtained through a random selection of schools and homerooms within schools inside of the single large city of Jeddah. Riyadh, Saudi Arabia's capital, is notoriously more conservative than the rest of the country, and a sample from that area has the potential to yield different results than the more progressive Jeddah.

Beyond generalizability, there are several areas within this study ripe for further exploration. The results presented here indicate a need to carefully inspect why low self-control leads to victimization. In each model where low self-control was a significant predictor of victimization, one or more L-RAT variables were also significant when added to the analysis. However, while the L-RAT variables produced significant effects, they did not diminish the effects of low self-control on victimization. One possible explanation for this is that low self-control may have a lifestyle effect, in which youths with low self-control select friends and engage in activities that increase their risk of victimization. Self-control maintains a significant direct effect on victimization even after controlling for other relevant predictors, indicating there is more to this relationship than just a lifestyle effect.

Youths with low self-control are marked by their inappropriate behaviors, such as those guided by impulsivity or lack of empathy. Schreck (1999) indicates that manifestation of low self-control could increase an individual's attractiveness as a victim (p. 635). It could be that, not only do youths with low self-control tend to engage in risky activities; they also act improperly, which draws the attention of those who would victimize them. Additionally, studies indicate that there are other personality traits outside of low self-control that dictate behavior and expose individuals to victimization (Kulig, Cullen, Wilcox, & Chouhy, 2019). While a relationship between low self-control and victimization has been clearly established, future studies should explore more closely the ways in which youths with low self-control become more vulnerable to victimization.

The L-RAT measures used in this study also warrant further consideration. Within this study, three measures of L-RAT were used. More direct measures of risky lifestyles would help refine analyses, but first risky lifestyles and activities across cultures need to be better

understood. Pratt and Turanovic (2016) assert that risky lifestyles are not even fully understood in Western research, and they provide a compelling argument for the revisualization of all L-RAT measures. Indicators of L-RAT have not seen much development past their original conception, and Pratt and Turanovic (2016) encourage researchers to explore other ways of measuring risky activities that would yield more accurate results.

To compound the measurement issue, while Saudi youths share some similar experiences as American youths, overall the way they spend their leisure time appears significantly different. Moreover, what is considered risky in one context may be seen as more or less risky in another. In fact, activities that are considered risky in some contexts may not even exist in others. For example, it is risky for Western males to be out late drinking, or for females to walk home alone at night, but neither of those are circumstances that would occur (or are very likely to occur) in Saudi society. Activity types were given consideration in this study, but given its preliminary nature and the little that is known of Saudi culture, these items should be adjusted for future research.

In addition, the parental guardianship measure used in this study is a limited measure of the L-RAT guardianship component, especially given the restrictive nature of Saudi Arabia. For females, it would be helpful to consider the effects of having a male escort in public at all times. Is there significant variation in the guardianship these escorts provide, and could the escort be a source of victimization in some circumstances? These are very difficult questions to answer, particularly in such a conservative context.

A final consideration for future research, but no less important, is the merging of low self-control theory and L-RAT. Findings support the generality of both low self-control and L-RAT in predicting victimization. Thus, both theories are important in victimization models and

should be included in future studies. Just as L-RAT was borne from the combination of routine activity theory and risky lifestyle theory, L-RAT and low self-control together could provide a more comprehensive explanation of victimization experiences. Explaining human behavior is complex, but as more is learned about what drives victimization, models of victimization can be further developed and refined. The current body of research around victimization supports the marriage of these two theories, and future research would be remiss to attempt to explain victimization without including both low self-control and L-RAT in further exploration of the topic.

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DEPENDENT VARIABLE

Victimization

3-Point scale (*never/sometimes/often*)

“These questions are about your experiences. Please tell us how frequently the following things happened to you.”

Modified BYS

1. You were punched, kicked, choked, or beaten up.
 2. You were teased, picked on, made fun of, or bullied.
 3. Someone sent you mean emails, text messages, or posted something bad about you on the Internet.
 4. Someone spread rumors or lies about you.
 5. Someone made unwanted sexual comments or gestures towards you.
 6. Someone stole something from you.
 7. Someone threatened you with violence.
-

INDEPENDENT VARIABLES

Self-Control

3-Point scale (*not true/sometimes true/often true*)

“Please tell us how well the following statements describe you or your behavior.”

Modified Grasmick et al.

1. I often do whatever brings me pleasure here and now, even at the cost of some distant goal.
2. I frequently try to avoid projects that I know will be difficult.
3. When things get complicated, I tend to quit or withdraw.
4. The things in life that are the easiest to do bring me the most pleasure.
5. I like to test myself every now and then by doing something a little dangerous.
6. Sometimes I will take a risk just for the fun of it.
7. I sometimes find it exciting to do things for which I might get in trouble.
8. Excitement and adventure are more important to me than security.
9. I try to look out for myself first, even if it means making things difficult for other people.
10. I'm not very sympathetic to other people when they are having problems.
11. If things I do upset people, it's their problem, not mine.
12. I will try to get the things I want even when I know it's causing problems for other people.
13. I lose my temper pretty easily.
14. Often, when I'm angry at people I feel more like hurting them than talking to them about why I am angry.
15. When I'm really angry, other people better stay away from me.

Modified PHDCN

1. I have trouble resisting temptation.
2. I often act on the spur of the moment.
3. I have self-control. (R)
4. I always like to make detailed plans before I do something. (R)
5. I like to do things that are fun even if they can get me into trouble.
6. I will try anything once.
7. I think school is a waste of time.
8. I try to do well at school. (R)
9. If I study hard, I will get good grades. (R)

L-RAT

Delinquent Peers

3-Point scale (*none of them/some of them/most of them*)

“The next set of questions are about your friends. Please tell us if none of them, some of them, or most of them have engaged in the following behaviors.”

Modified NYS

1. Purposefully damaged or destroyed property that did not belong to them.
2. Smoked cigarettes.
3. Used marijuana, cannabis, or hashish.
4. Stolen something.
5. Hit or threatened to hit someone without any reason.
6. Used alcohol.
7. Sold illegal drugs.
8. Suggested you do something that was against the law.
9. Have gotten in trouble at school.
10. Have been in trouble with the police.
11. Have been in trouble with the religious authority.

Delinquency

3-Point scale (*note true/sometimes true/often true*)

“Please circle the appropriate response indicating how well these statements describe your behavior.”

Modified NYS

1. I have purposefully damaged or destroyed property belonging to my parents or other family members.
2. I have stolen or tried to steal something worth more than US \$50.
3. I have knowingly bought, sold, or held stolen goods.
4. I have purposefully set fire to a building, a car, or other property, or tried to do so.

5. I have carried a hidden weapon.
6. I have stolen or tried to steal things.
7. I have attacked someone with the idea of seriously hurting or killing that person.
8. I have been involved in gang fights.
9. I have sold illegal drugs.
10. I have stolen money or other things from my parents or members of my family.
11. I hit or threatened to hit one of my parents.
12. I have deliberately hurt and injured a friend.
13. I have been loud, rowdy, or unruly in a public place.
14. I have sold pills.
15. I have tried to cheat someone by selling them something that was worthless or not what I said it was.
16. I have used force or threats to get money or things from people.
17. I have purposefully damaged or destroyed property that did not belong to me.
18. I have broken or tried to break into a building or vehicle to steal something.
19. I have begged for money or things from strangers.
20. I have made obscene telephone calls such as calling someone and saying dirty things.
21. I have snatched someone's purse or wallet or picked someone's pocket.
22. I have used alcoholic beverages, beer, wine, or hard liquor.
23. I have used tobacco or cigarettes.
24. I have used marijuana, cannabis, or hashish.
25. I have used hard drugs such as heroin or cocaine.
26. I have used medicine that was not prescribed to me such as Captagon.
27. I have used other substances to get high.

Parental Guardianship

3-Point scale (*never true/sometime true/often true*)

"How well do the following statements describe you and your family?"

Modified PHDCN

1. Family members sometimes get so angry they throw things. (R)
2. Family members often criticize each other. (R)
3. Family members sometimes hit each other. (R)
4. There is a strong emphasis on following rules in our family.
5. My parents know the names of my friends.
6. I like to do things with my family.
7. I enjoy talking with my family.
8. My parents know who I am going out with when I go out with other boys or girls.
9. I feel close to my family.
10. Members of my family have been in trouble with the police or have been arrested. (R)

CONTROL VARIABLES

Respondent's Age

Household Size

Father's Level of Education

1 = less than high school, 2 = high school, 3 = university level

Mother's Level of Education

1 = less than high school, 2 = high school, 3 = university level

Gender

0 = female, 1 = male

Self-Reported GPA

A, B, C, or D
