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Intimate Partner Violence and the Capacity and Desire for Self-Control

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Intimate Partner Violence and the Capacity and Desire for Self-Control

by

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A thesis submitted in partial fulfillment
of the requirements for the degree of
Master of Arts
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DEDICATION

This thesis is dedicated to the amazing support system I have been blessed with along my journey. To Dr. Cochran, thank you for your investment in both my personal and academic success. From my first day as a graduate student, you have helped to shape and guide me. I owe much of my academic development to you. To Drs. Powers and Sellers, thank you for giving your time and victimology expertise in bringing this to completion. To my best friends, thank you for your loyalty and devotion throughout all our years of friendship. I am lucky to know I always have someone I can count on no matter how many miles separate us. To my siblings, thank you for being some of my biggest fans over the years. No one shares a bond of love and laughter quite like we do. To my parents, thank you for your love and support from day one. Without the endless opportunities you provided for me, I would have never reached this point. Thank you for instilling in me the values of education and dedication, and for providing role models. Mom, I can only hope to one day become half the woman you are. To my furbabies, thank you for lending your fur to countless tears and ensuring I will never come home without an enthusiastic welcome. And lastly, but most importantly, Wylie, thank you for everything. Thank you for taking care of me and thank you for your immense patience. You have seen me at my worst and loved me no differently than at my best. Thank you for being my rock, my best friend, and my partner. I love you all.

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ABSTRACT

The effect of self-control on one's criminal offending is a product of both an individual's capacity to exercise self-control as well as their desire to exercise self-control. The present study utilized self-report data gathered at a large urban university in Florida (n=1,307) to test the independent and interactive effects of control-capacity and control-desire on intimate partner violence perpetration. The study suggests that while both capacity and desire for control have effects on one's likelihood of reporting IPV, these effects are independent of each other.

INTRODUCTION

Intimate partner violence (IPV), defined by the U.S. Centers for Disease Control and Prevention as “physical, sexual, or psychological harm by a current or former partner or spouse” (CDC, 2016), is a serious and sometimes fatal occurrence. According to the National Coalition Against Domestic Violence, nearly 20 individuals per minute are victims of IPV in the U.S.; this results in more than 10 million victims annually (NCADV, 2015). Non-fatal IPV accounts for approximately 15% of all violent victimizations (Truman & Morgan, 2014). Among homicides between 1980 and 2008 where the victim/offender relationship was known, nearly one out of five murder victims were killed by an intimate partner. When restricting the view to female victims, two out of five murders were by an intimate partner (Cooper & Smith, 2011). Despite the U.S. having harsher legislation against domestic violence than other countries, more than a quarter of women are victimized, a statistic representative of the global percentage (Mahserjian, 2016). In addition to the physical, psychological, and social consequences for the victim, IPV costs society billions of dollars annually in medical and mental health care, criminal justice expenses, and loss of productivity (CDC, 2016).

Providing a theoretical explanation of IPV has been a recurring objective of researchers in this area of inquiry, yet, they typically advance the same theories, namely intergenerational transmission of violence (Corvo & Carpenter, 2000; Franklin & Kercher, 2012; Simons, Wu, Johnson, & Conger, 1995), and social learning theory (Cochran, Maskaly, Jones, & Sellers, 2015; Mihalic & Elliott, 1997; Sellers, Cochran, & Branch, 2005). More recently, scholars have tested the efficacy of Gottfredson and Hirschi’s general theory of crime as an explanatory

framework. Low self-control, as proposed by Gottfredson and Hirschi's (1990) general theory of crime, is an innate incapability to exert dominance over one's own behavior, and, in their view, is the singular cause of any crime. Insufficient levels of self-control result in higher criminogenic propensity. When a criminal opportunity presents itself, those with low self-control are less likely to refrain from offending. The theory has been supported by literature for both crime and deviance (Donner & Jennings, 2014; Reyns, Henson, & Fisher, 2014; Vazsonyi, Pickering, Junger, & Hessing; Wolfe, Resign, & Holtfreter, 2015), and has been specifically linked with IPV (Sellers, 1999).

Tittle, Ward, and Grasmick (2004) expanded the theory of low self-control by proposing a new consideration. They contend that people vary not only in their capacity for self-control (previously conceptualized solely as self-control), but also in the degree to which they desire to restrain themselves by exerting self-control. These two characteristics of self-control are distinct, hold separate importance to explaining behavior, and vary independently (Tittle et al., 2004). Unlike one's self-control capacity, which develops at a young age and is relatively stable as one progresses through life (Gottfredson & Hirschi, 1990), the desire to exercise that control can vary (Tittle et al., 2004). A combination of low self-control capacity and low desire suggests a high likelihood of criminality. Conversely, the combination of high self-control capacity and high desire makes criminality unlikely (Tittle et al., 2004).

The objective of the current study is to assess the perpetration of IPV among college students in the context of Tittle and colleagues (2004) reconceptualization of self-control theory. Using self-report data derived from a sample of students at a large southeastern university, the direct and indirect effects of both control-capacity and control-desire on IPV perpetration are examined.

Chapter 2 introduces a brief review of the literature involving intimate partner violence and specifically the perpetration of IPV. The definitions and characteristics of the crime and offender are discussed. It reviews the theoretical frameworks typically applied as explanations of IPV and the various tests of these theories.

Chapter 3 elaborates on the reconceptualization of self-control by Tittle, Ward, and Grasmick (2004). It explores its foundation in the general theory of crime by Gottfredson and Hirschi (1990) and its progression to Tittle et al.'s (2004) inclusion of desire to exercise self-control. The existing, though limited, studies examining deviance through the lens of self-control capacity and desire are also discussed. Finally, a case is made for its application to IPV perpetration.

Chapter 4 identifies the data and methods used for the present study. The data are derived from a self-administered survey among undergraduate and graduate students in a Florida university, yielding a sample size of 1,307. The dependent variable is a count of the number of different forms of IPV perpetrated by the respondent. The independent variables are the respondents' capacity for self-control as well as desire for self-control, itself comprising five components. Negative binomial regressions are employed to determine the relationships between the dependent and independent variables.

Chapter 5 provides the results of these statistical analyses concerning the effect of self-control capacity and desire on the likelihood of IPV perpetration.

Lastly, Chapter 6 presents a conclusion of the study, with a summary of the purpose and findings and a discussion of the theoretical and policy implications that may be derived. The limitations of the study are addressed and suggestions for future research are also presented.

REVIEW OF INTIMATE PARTNER VIOLENCE LITERATURE

Theorists have difficulty reaching consensus on how to define crime (Gottfredson & Hirschi, 1990), and IPV is no exception (Buzawa & Buzawa, 2003). The simplest and most encompassing definition is provided by the CDC (2016), in that IPV is “physical, sexual, or psychological harm by a current or former partner or spouse”, and is the conceptualization of IPV used for this study, though the focus is on physical IPV perpetration. One in three women and one in four men have experienced some form of IPV in their adult lifetime; one in four and one in seven, respectively, have experienced severe physical violence (Black et al., 2011).

Intimate partner violence is individually costly, damaging the physical and mental health of the victim (WHO, 2013). Victims are more likely to report ailments such as chronic pain and headaches, insomnia, depression, and PTSD (Black et al., 2011; Bonomi, Thompson, Anderson, Reid, Carrell, Dimer, & Rivara, 2006). It can present issues in the social, academic, and occupational areas of victims’ lives; victims may become more withdrawn and feel isolated (Lanier & Maume, 2009; Wright & Fagan, 2012), those who are students may see increased absenteeism and slipping grades (Bonomi, Nichols, Kammes, & Green, 2017), and others are at risk of quitting or losing their job due to abuse-related reasons (Rothman, Hathaway, Stidsen, & de Vries, 2007).¹ Furthermore, IPV is costly to society; physical, mental, and occupational consequences, as well as criminal justice involvement, cost billions each year (CDC, 2016). Fortunately, following the trend of overall violent crime, an analysis of the National Crime

¹ Victims are estimated to lose 8 million days of paid work annually (Rothman, Hathaway, Stidsen, & de Vries, 2007).

Victimization Survey (NCVS) between 1994 and 2012 reveals the rate of both serious and simple assault by an intimate partner is on the decline, and at a faster rate than domestic violence committed by immediate family members as well as others relatives (Truman & Morgan, 2014). The significant decline immediately following 1994 is quite possibly due to the passing of the Violence Against Women Act (VAWA) that same year (Truman & Morgan, 2014).

There is more than one form of IPV. Johnson (1995) proposed two distinct dynamics of IPV researchers often focus on: patriarchal terrorism and common couple violence, later referred to as intimate terrorism and situational couple violence (Johnson, 2010). Johnson emphasizes that the key difference between the types is motivation. Intimate terrorism, which brings to mind terms such as domestic abuse or wife beating, emphasizes the abuser's control over their partner through tactics of physical violence, economic subordination, and social isolation. Situational couple violence, on the other hand, is typically the result of a conflict, rather than a means of domination (Johnson, 1995). Situational couple violence is less extreme than intimate terrorism in terms of frequency, duration, and intensity of the violence; that is, victims are attacked less often, the violence is more likely to stop, it is more likely to be mutual, and the violence is more likely to involve minor forms of abuse and less likely to result in injury or other physical or mental health consequences (Johnson & Leone, 2005).

It is important to note that there is no such thing as a typical victim or offender; IPV pervades all societies, regardless of gender, race, age, religion, education level, or socioeconomic status (NCADV, 2015). There are, however, sociodemographic characteristics that increase the likelihood of being a victim or perpetrator of IPV. Violence is more frequent and severe in lower socioeconomic groups (Jewkes, 2002), including IPV (Field & Caetano, 2004). Cunradi, Caetano, and Schafer (2002) found annual household income to have a greater influence on the

risk of IPV than other sociodemographic characteristics. This is likely mediated by the stress produced by poverty (Jewkes, 2002). While Jewkes (2002) proposes that impoverished men may resort to violence due to a threat to their masculine identity, Sorenson, Upchurch, & Shen (1996) found when examining gender differences in hitting between partners that women in households with an annual income of less than \$15,000 were more likely to abuse their husbands than vice versa. Working in a highly stressful occupation can also increase the risk of IPV perpetration (Stith, Penn, Ward, & Tritt, 2004), including police officers (Gershon, Barocas, Canton, Li, & Vlahov, 2009). Though Blacks are at a higher risk of both perpetration and victimization, the results diminish or disappear after other sociodemographic characteristics, such as gender and income, are controlled for (Cho, 2011; Rennison & Planty, 2003). Substance use among men and women is strongly correlated with risk of intimate partner abuse for both perpetrators (Coker, Smith, McKeown, & King, 2000) and victims (El-Bassel, Gilbert, Witte, Wu, Gaeta, Schilling, & Wada, 2003), with scholars suggesting a bidirectional relationship between the substance use and violence (El-Bassel, Gilbert, Wu, Go, & Hill, 2005). Lastly, the gender dichotomy typically portrays women as intimate partner victims and men as much more likely to be the perpetrator, especially in instances of more physically dangerous violence. Many empirical studies support this generalization (Caetano, Vaeth, & Ramisetty-Mikler; Tjaden & Thoennes, 2000). According to the Bureau of Justice Statistics (BJS), in 1998, almost 85% of intimate partner victimizations occurred against women (Rennison and Welchans, 2000); a more recent study examining NCVS data on nonfatal domestic violence between 2003-2012 found male against female violence accounted for 82% of all IPV cases (Truman & Morgan, 2014). However, research in the exploratory area of female perpetration has revealed substantive abuse against male partners as well (Swan, Gambone, Caldwell, Sullivan, & Snow, 2008) at rates

mimicking and sometimes exceeding their male counterparts. A study utilizing the third wave of the National Longitudinal Study of Adolescent Health found that 49% of violent relationships involved reciprocal violence; for nonreciprocal violent relationships, both men and women reported the women to be the perpetrator in 70.7% of the cases (Whitaker, Haileyesus, Swahn, & Saltzman, 2006). The gender issue interacts with the type of violence proposed by Johnson. There is more gender symmetry in the context of situational couple violence, whereas intimate terrorism is most often, but not exclusively, perpetrated by men (Kelly & Johnson, 2008).

Intimate partner violence, due to its personal nature and anticipated response from both the offender and the criminal justice system, often goes unreported, contributing to the “dark figure of crime” (Gracia, 2004; MacDonald, 2002). Prevalence data, estimated usually through means of self-report surveys, dwarf the number of cases reported to the police. This is referred to as the “iceberg” of domestic violence (Gracia, 2004), where the cases known to the police (usually the most severe, the conclusion of grievous abuse or an escalation that results in homicide) only represent the tip of the iceberg; the bulk of the iceberg, the unreported domestic violence cases, remain submerged and go unnoticed. The aforementioned gender gap in official reports, then, can likely be partially explained by the type of assaults reported, as well as the fact that IPV involving a man assaulting a woman is 6 times more likely to result in an injury (Buzawa & Buzawa, 2003).

Even when only concerned with cases of known IPV, the criminal justice system struggles in that it only allows for reactionary, rather than proactive, response. Mandatory arrests conducted by officers when called to a domestic dispute and counseling programs as part of probationary sentences can be utilized after the commission of the offense, but provide no assistance in averting the occurrence (Buzawa & Buzawa, 2003). Fagan (1996) stated that the

criminal justice system should place its emphasis on detecting, controlling, and punishing offenders. In order to prevent it, we first need to have an understanding of an individual's motivators and restraints in relation to IPV; for this reason, theories that accurately and adequately predict IPV are important in tests of it.

Theoretical Applications to IPV

Applying theory to intimate partner violence allows for an attempt at understanding the causes and risk factors related to the offense. Though IPV has seen theoretical explanations of a psychological, sociological, ecological, biobehavioral or economic nature (Heise, 2012; Hyde-Nolan & Juliao, 2011), IPV is studied within criminology under the context of the intergenerational transmission of violence theory (IGT), social learning theory, and self-control theory (Sellers, 1999; Simons, Wu, Johnson, & Conger, 1995; Smithey & Straus, 2004). Theories of intergenerational transmission of violence and learning suggest a correlation between exposure to IPV and a higher likelihood of both experiencing and perpetrating it (Cappell & Heiner, 1990; Cannon, Bonomi, & Anderson, 2009; Cochran, Sellers, Wiesbrock, & Palacios, 2011; Ehrensaft et al., 2003). Theories of self-control posit that the ability to control one's action varies amongst individuals, thus making those with low ability to control their behavior more prone to deviant and criminal activities, including violence (Gottfredson & Hirschi, 1990; Payne, Higgins, & Blackwell, 2010; Pratt & Cullen, 2000). Scholars have criticized theoretical models of IPV for their narrow scope. Studies repeatedly rely on tests of the same theories (Sellers, Cochran, & Branch, 2005). Micro-level theoretical applications to IPV thus far have received affirmative but seldom more than moderate support (Sellers, 1999; Sellers et al., 2005; Simons et al., 1995; Stith, Rosen, Middleton, Busch, Lundeburg, & Carlton, 2010).

IGT postulates that children who grew up in violent households are more likely than children who did not to continue the witnessed or experienced violence in their own homes as a violent partner or parent (Gelles, 1980). Family roles, conflict resolution, and attitudes towards violence are observed and internalized by the child (Simons et al., 1995). The two theoretically possible outcomes are a normalization of violence between family members, increasing the likelihood of the child using any form of aggression within their own future families, or an adoption and replication of the specific types of violence observed by the child (Kalmuss, 1984). Black, Sussman, and Unger (2010) found support for this specific modeling of violence among young adults in intimate relationships that had been exposed to interparental violence. Similarly, others have found a same sex modeling effect, in that witnessing a parent of their sex perpetrating violence increased the odds of their own use of dating aggression (the same did not hold for witnessing violence by the opposite sex parent); witnessing violence from both parents increased the risk of IPV victimization (Jankowski, Leitenberg, Henning, & Coffey, 1999). Scholars have identified that violence in the family of origin predicted a bidirectional relationship between IPV perpetration and victimization for both physical and psychological abuse. Witnessing interparental violence increased the odds of both committing and receiving violence; neither gender nor role specific patterns emerged in the transmission of relationship violence (Kwong, Bartholomew, Henderson, & Trinke, 2003). Stith and colleagues (2000) conducted a meta-analysis of 39 studies examining the correlation between witnessing violence between parents and later emulating it in their own relationships; their findings showed a weak-to-moderate support for the theory. Though IGT is nearly exclusively studied in the context of environmental factors, Hines and Saudino (2002) suggested that the genetic influence on aggression (DiLalla & Gottesman, 1991) necessitates studies of IPV through a behavioral genetic

lens. The link between witnessing interparental violence and later perpetrating is concerning in the magnitude of children subjected to it; 1 in 15 children are exposed to IPV annually, and 90% of these children are direct eyewitnesses (Hamby, Finkelhor, Turner, & Omrod, 2011).

IGT is consistent with the perspective of social learning, though scholars have tested them as separate theories due to the additional tenets of social learning theory. Learning theory, credited to both behavioral psychologist Albert Bandura and sociological criminologist Ronald Akers, contends that behavior is observed, defined, imitated, and positively or negatively reinforced. Under this theory, reinforcements are both social and nonsocial, a theoretical intersection of Sutherland's (1947) differential association (crime is more likely to occur in crime-favorable social settings) and Skinner's (1938) operant conditioning (punishments and rewards lead to an association between the behavior and reinforcement). That is, the process of operant conditioning involves differential association, differential reinforcement, definitions, and imitation (Akers, 1977). Differential association concerns the social groups that expose an individual to a behavior, provide normative definitions, and are major sources of reinforcement; the two most influential groups are one's family and peer group. Differential reinforcement determines the likelihood that a conforming or deviant behavior will persist, depending on the rewards and punishments for the behavior. Definitions, the norms, attitudes, and orientations internalized through observing behavior in the aforementioned differential associations, label a behavior as good or bad. Lastly, the individual will likely imitate, or model, the observed behavior based on the degree of differential reinforcement attached or anticipated (Akers, Krohn, Lanza-Kaduce, & Radosvich, 1979).

Bandura specifically tested the effects of learning on aggression. Children observed a same-sex and opposite-sex adult acting aggressively, both verbally and physically, with a Bobo

doll, and then the children were given a chance to interact with the doll; both male and female children (though to a lesser extent for females) were far more likely to exhibit aggression against the doll when the role model aggressor was male (Bandura, 1977). A meta-analysis of 133 studies testing social learning theory found differential association and definitions to be the strongest predictors, while differential reinforcement and imitation, though remaining significant, offered less explanatory power (Pratt et al., 2010). The effect of each element, though, was affected by the survey, sample size, and modeling specification. Three tests of social learning theory on IPV have found differential association and differential reinforcement to be the most consistent predictors (Sellers, Cochran, & Winfree, 2003; Sellers et al., 2005; Cochran, Jones, Jones, & Sellers, 2015). Few studies have tested IPV in the context of social learning theory. Another learning theory, male peer support theory, contends male to female violence can be influenced by patriarchal norms that support aggression against the female; attitudes that encourage or legitimate abuse can be learned through men's social bonds with their male peers (DeKeseredy, 1990). Scholars have argued Akers' social learning theory integrates enough elements of IGT, while likewise subsuming elements of male peer support theory, that social learning theory is better suited than the former theories for explaining IPV (Sellers et al., 2005). Conversely, other scholars have found that a combined test of both social learning theory and IGT is more appropriate, measures of social learning theory serving as mediators for the effects of the IGT of violence in both minor and severe forms (Wareham, Boots, & Chavez, 2009).

IGT and social learning theory contend that behavior can be influenced through observation. Others suggest that rather than being modeled, human behavior may be predetermined or influenced by innate characteristics, one of these being the concept of self-control. In 1990, Gottfredson and Hirschi proposed a general theory of crime, which asserts that

people's self-regulation of their behavior involves an analysis of costs and benefits, and that individuals characterized by low self-control are more susceptible to deviant and criminal behavior. The scholars build from classical theories, credited to Beccaria (1963) and Bentham (1996), which contend that human nature is governed by avoiding pain and seeking pleasure, and incorporate these ideas into criminology. They state low self-control, an innate incapability to exert dominance over one's own behavior, is "for all intents and purposes, *the* individual-level cause of crime" (Gottfredson & Hirschi, 1990, p. 232). Under this belief, all other theoretical explanations applied to criminal behaviors are spurious in nature. People are inherently motivated towards criminal and deviant behavior as it can be rewarding and often with instant gratification. Those with adequate or high levels of self-control assess the logical consequences and outcomes of their behavior and make a decision based on a rational calculation of the anticipated costs and benefits, most likely refraining from engaging in the behavior. Those lacking sufficient levels of self-control have greater difficulty in assessing future consequences, increasing the likelihood of engagement (Gottfredson & Hirschi, 1990). Gottfredson and Hirschi (1990) propose that this quality is a product of one's parenting and is a stable trait developed by a young age (i.e. 8 years of age).

Despite their claim that both male and female behavior should be explained by levels of self-control, Gottfredson and Hirschi's (1990) self-control theory has been challenged on its ability to predict IPV, particularly due to its neglect of the roles of gender and power positions (Miller & Burack, 1993), elements feminist scholars have emphasized (Hunnicut, 2009). Beyond the issue of those criticisms limiting IPV to a gendered crime, though the theorists did not apply their theory to violence among intimate partners in particular, they examine their theory's power in explaining two other violent crimes, rape and homicide (Gottfredson &

Hirschi, 1990). Additionally, some traits of low self-control would seem to make violence particularly likely, such as a tendency to resort to physical means in resolving conflict, and having a low threshold for frustration (Gottfredson & Hirschi, 1990), therein suggesting self-control's applicability to interpersonal violence. Tests of self-control theory have shown support for explaining a variety of violent crimes, such as robbery, assault, homicide, and rape (Franklin, Bouffard, & Pratt, 2012; Ha & Beauregard, 2016; Longshore & Turner, 1998; Pratt & Cullen, 2000; Piquero, MacDonald, Dobrin, Daigle, & Cullen, 2005); Schreck (1999) also found low self-control to be a risk factor in both property and personal victimization. Low self-control is also predictive of other deviant acts, such as drug and alcohol use, which in turn are linked with IPV perpetration and victimization, in part because the consumption of these substances decreases one's self-regulation (Flanzer, 2005; Stith et al., 2004; Stuart et al., 2008). The effects of low self-control specifically on IPV perpetration, however, has seen a limited number of tests. Sellers (1999) examined intimate partner violent under Gottfredson and Hirschi's (1990) general theory of crime and found college students that indicated measures of low self-control yielded greater odds of reporting IPV perpetration. Likewise, a study by Chapple and Hope (2003) found low levels of self-control were significantly associated both with gang and dating violence. Kerley, Xu, and Sirisunyaluck (2008) applied four of the six tenets of the general theory of crime to a study of Thai women. Impulsivity, risk-taking, and low frustration tolerance served as a predictor for physical violence perpetration; interestingly, physicality only served as a predictor for psychological violence. Overall, lower levels of self-control were associated with higher risks of IPV perpetration. Payne, Higgins, and Blackwell (2010) found that while IPV was related both to low levels of self-control and child victimization, experiencing violence as a child did not serve as a link between the two.

Zavala (2016) tested intimate partner violence under a multi-theoretical framework, and while social learning measures failed to attain significance, both heterosexual and non-heterosexual individuals with high levels of self-control were less likely to be perpetrators of violence. Low self-control as a predictor of IPV is more logically applied to situational couple violence rather than intimate terrorism; conflict escalation resulting in violence is more indicative of low self-control than strategic tactics to control one's partner. Unlike theories of intergenerational transmission of violence and social learning, which rely on an exposure to violence in order to internalize the behavior as a norm (Simons et al., 1995; Sellers et al., 2005), low self-control is best suited to explain instances in which individuals that deal poorly with frustration and are prone to physical and impulsive reactions perpetrate IPV. One might consider, however, an overlap between the theories of learning and low self-control; it is logical considering low self-control is thought to be shaped by one's parents and child rearing practices (Gottfredson & Hirschi, 1990); through a process of IGT or social learning, having violent parents may make a child more prone to low self-control. Indeed, using measures of low self-control to indicate criminal propensity, Cochran and colleagues (2015) found that criminal propensity moderated the effects of social learning theory on IPV.

REVIEW OF THE CONTROL-CAPACITY AND CONTROL-DESIRE LITERATURE

Gottfredson and Hirschi's (1990) theory of low self-control is merely a subset of a larger body of self-control theories. Though the theory has found consistent empirical support, it offers an unnecessarily restricted conceptualization of self-control. Critiques of the theory argue that it ignores the roles of other factors such as motives, situational factors, and processes of learning (Benson & Moore, 1992; Geis, 2000; Pratt & Cullen, 2000; Wikström & Treiber, 2007). The often weak correlation between low self-control and criminal and deviant behavior suggests there are other variables additionally influencing the behavior (Tittle et al., 2004). Tittle and colleagues (2004) offer a broader reconceptualization of Gottfredson and Hirschi's theory that incorporates the desire to exercise self-control alongside an individual's capacity for self-control.

Tittle, Ward, and Grasmick (2004) proposed that one's ability to control oneself was conceptually distinct from the degree to which one wants to control oneself; that is, not only do people have a capacity for self-control (previously conceptualized solely as self-control), but they also possess an individual interest in restraining themselves (or a desire to exercise self-control). Though the earlier theorists expressly denied the role of consciousness in one's self-control, Tittle and colleagues assert the two characteristics are distinct in their definitions, hold separate importance to explaining behavior, and vary independently; additionally, the scholars suggest the disregard to an individual's desire to restrain themselves may be a hindrance to the power of the theory. However, Tittle and colleagues (2004) propose a simultaneous analysis of control-desire and control-capacity for a new theoretical perspective.

The capacity for self-control is defined largely by behavioral preferences rather than true traits of self-control (Tittle et al., 2004) such as tendency to respond to behavioral stimuli, an aversion to complex tasks, being adventuresome, partiality for physical activity over mental, insensitivity to needs outside their own, and possessing low tolerance for frustration (Gottfredson and Hirschi, 1990). While their indicators of control-capacity are derived directly from conventionally measured elements of self-control ability as identified by Gottfredson and Hirschi (1990), self-control desire pulls indicators from multiple theoretical perspectives, including those discussed previously, for an indirect approximation. These indicators include measures of their subjects' self-pride for making a decision to engage in restraint from offending, perceived informal sanctions for offending from those whose opinion they value, perceived praise received for restraining from offending from those whose opinion they value, perceived likelihood of getting caught should they offend, estimation of guilt as a consequence of offending, and the degree of moral condemnation or beliefs about the inherent wrongfulness of a particular act. An interaction of capacity and desire for self-control, then, produces or prevents criminal behavior (Tittle et al., 2004). Though not exact, this idea of control-desire is logically consistent with the notion of temporal or rationally calculated self-regulation from psychological perspectives (Carver & Scheier, 1982). Scholars argue the key difference between the two is in rational calculus; those with low self-control are impulsive and think only in terms of short-term consequences, while those that desire to control themselves are future-looking and analyze formal and informal sanctions as long-term consequences (Piquero, Exum, & Simpson, 2005). Tittle et al. (2004) argue that the ability to restrain oneself should be a good predictor of criminal or deviant behavior in those that have a high desire to exercise it, while serving as a weaker predictor for those that have little desire to restrain themselves. They refer to the language used

in Gottfredson & Hirschi's (1990) theory (such as "*ability* to calculate potential gain") to argue control-capacity has the greater influence on behavior; in the absence of self-control capacity, those that wish to regulate their behavior are less capable. On the other hand, one having a high capacity for self-control does not ensure that they will regulate themselves; if an individual with high control-capacity has little desire to control themselves, they may intentionally choose criminal or deviant behavior (Tittle et al., 2004). The convergence of both low control-capacity and control-desire in an individual likely makes them far more prone to criminality; likewise, an individual with both high control-capacity and control-desire is unlikely to engage in deviant behavior (Tittle et al., 2004).

Tittle, Ward, and Grasmick (2004) tested this idea using a random sample of adults drawn from the 1994 annual Oklahoma City Survey. Interviews were conducted with 350 respondents, who also indicated their criminal behavior on a separate answer sheet. Unlike the capacity for self-control, an internal quality independent of social environment and situation context, the desire to exercise self-control is immediately relevant to one's social and situational surroundings (Cochran et al., 2006). Tittle and colleagues argue that for this reason, the desire to exercise self-control, such as perceiving higher sanctions in a given opportunity, may influence the likelihood of offending. To measure control-capacity, they utilize a scale by Grasmick and colleagues (1993) that is composed of questions concerning the tenets of self-control theory. To measure control-desire, again, they inquired into self-pride from restraint, praise from others for restraint, lost respect from others for offending, likelihood of getting caught, guilt for offending, and level of moral condemnation of the given acts for a general crime index (reports of seven kinds of past misbehavior) and projections of five kinds of future misbehavior (assault, stealing something worth less than \$20, cheating on income tax, illegal gambling, and impaired driving).

They examined the scales of past and future misbehavior separately as well as combining them, finding them to be largely similar in substantive patterns. Multiple regression was utilized in examining self-control ability, self-control desire, and a multiplicative interaction term of control-capacity and control-desire. Control-capacity independently predicted all measures of crime/deviance; as capacity levels increased, likelihood of offending decreased. Control-desire, when tested independently, predicted measures of crime as well, having a greater influence on illegal gambling and impaired driving; like capacity, as desire-for-control increased, likelihood of offending decreased. The interactive term of control-capacity and control-desire predicted the general index, the G-H crime index, and the assault measure; as control-desire increases, the effect of control-capacity weakens. Aligning with Gottfredson and Hirschi's (1990) general theory of crime, self-control ability predicts crime well; contrasting with the theory, however, in presence of strong control-desire, control-capacity has less predictive power, and capacity plays a greater role in the presence of weak desire. The scholars suggest this may be that desire has an "overriding" influence in the presence of weak capacity (Tittle et al., 2004).

Other studies have proceeded to apply the self-control concepts of capacity and desire suggested by Tittle, Ward, and Grasmick (2004) to deviant and criminal behavior. Piquero, Exum, and Simpson (2005) tested the desire-for-control (without control-capacity) in an integrated rational choice model. They acknowledge low self-control, but maintain that they are distinct, overlapping concepts, rather than opposing. They distributed three scenarios of corporate offending to 46 MBA students and used the scenario as their unit of analysis (n=138). The benefit of offending, risk of informal and formal sanctions, and morality of the individuals was measured. Control-desire significantly related to violation intentions in a positive direction, the opposing direction to what one would assume for a conventional crime, although in the

predicted direction of their hypothesis. The researchers account for this finding with the observation that corporate offending is an attempt to gain control over uncertain environments (Piquero et al., 2005b). Interestingly, an individual's desire for control influenced the implementation of rational calculus; those with high control-desire perceived higher informal and formal sanctions, higher morality and shame, and lower individual benefits (Piquero et al., 2005b). Cochran, Aleksa, and Chamlin (2006) examined the effects of control-capacity and control-desire on academic dishonesty. A sample of undergraduate sociology students were given a self-administered questionnaire, with independent variables of control-capacity (measured by statements reflecting the general theory's six tenets) and control-desire (indirect measures pulled from various theories, as with Tittle and colleagues, and a dependent variable of academic dishonesty (composed of 17 forms). A principal components analysis allowed them to verify the distinction between the two concepts, but they are still correlated; control-capacity is moderately and positively associated with respondents' control-desire. Independently, both higher levels of control-capacity and control-desire are associated with less tendency towards academic dishonesty. Interactively, as control-desire is greater, the effects of control-capacity weaken; that is, at high levels of desire-for-control, self-control capacity has little influence. Cochran and colleagues (2006) also examine four subgroups; those with low levels in both capacity and desire, those with high levels for both, and those with high control-capacity/low control-desire and low control-capacity/high control-desire. Those with high control-capacity, regardless of low or high desire, had both lower means and lower standard deviations on academic dishonesty. Desire only had a modest influence in presence of low capacity; control-desire serves as an inhibitor best alongside high control-capacity. Additionally, Cochran et al.

(2006) included a measure of opportunity, number of hours enrolled; they found it to be positively and significantly related to reporting academic dishonesty.

Later, Piquero, Schoepfer, and Langton (2010) tested the relationship between control-capacity and control-desire and their different predictive powers in explaining corporate crime. It is again acknowledged that desire-for-control predicts corporate offending better and in a different manner than control-capacity. Eighty-seven working adults in business classes were given a scenario in which a manager is told to shred problematic documents. While they originally predicted low self-control would render other characteristics, including control-desire, insignificant, desire-for-control emerged significant in all but one of their models, even when controlling for control-capacity; measures of low self-control did not attain significance. Again, higher desire-for-control was positively associated with intention to offend (Piquero, Schoepfer, and Langton, 2010). Schoepfer, Piquero and Langton (2014) identified differences between control-capacity and control-desire in their ability to predict different types of crimes. Criminal justice students at a university were given vignettes concerning occupational crime (embezzlement), corporate crime (shredding documents) and conventional crime (shoplifting). Shoplifting was predicted by control-capacity, in that those with low self-control indicated higher likelihood of offending, but control-desire did not attain significance. This aligns with the notion of low control-capacity being short-sighted while control-desire is related to long-term outlooks. Concerning embezzlement, control-desire was only significant in the presence of low control-capacity. The authors identify this internal struggle may be as embezzlement is an individualistic crime, the behavioral choices being made solely by the offender, control-capacity and control-desire interact. Lastly, corporate crime in the form of shredding documents was

predicted by control-desire, again in a positive direction consistent with prior research (Schoepfer et al., 2014).

Craig and Piquero (2016) replicated the former study with two forms of individualistic white collar crime (embezzlement and credit card fraud) as well as a conventional street crime (shoplifting). For all three crime scenarios, those with lower levels of control-capacity were significantly more likely to report intentions to offend. Control-desire failed to predict any of the crimes for the full sample. When restricted to a subsample of those with high control-capacity, control-desire lessens the likelihood of intention to offend. Analysis also revealed that levels of control-desire were significantly different between individuals with high and low control-capacity. This suggests that among those with high control-capacity, control-desire serves as an inhibitor for offending (Craig & Piquero, 2016). There have hitherto been no applications of this theory to a violent crime in depth, though a vague measure of assault was included in Tittle et al.'s (2004) original study.

Offenders likely vary in their ability to restrain themselves in situational conflicts, but it is possible that they also vary in their desire to refrain from committing violence against their partner. Assuming self-control capacity alone serves as a predictor of intimate violence perpetration attributes blame to characteristics ingrained in an individual by a young age; it ignores the potential role of the individual's perception of formal and informal controls in place, as well as their evaluation of costs and benefits, important tenets from theories of learning and rational choice. Therefore, a test of Tittle, Ward, and Grasmick's (2004) self-control capacity and self-control desire is appropriate to apply to IPV in order to illuminate the explanatory power provided by the inclusion of self-control desire to Gottfredson and Hirschi's (1990) general theory of crime.

In addition to providing a new theoretical perspective to the literature on intimate partner violence, this study is the first test of Tittle, Ward, and Grasmick's (2004) reconceptualization of Gottfredson and Hirschi's (1990) self-control theory applied to a violent crime beyond the theorists' inclusion of a measure of assault. Other tests have been limited to minor forms of deviance such as academic dishonesty, or nonviolent crimes such as embezzlement, document shredding, and shoplifting. The study contributes to the theoretical body of literature by assessing whether a test of Tittle, Ward, and Grasmick's (2004) theory of self-control capacity and self-control desire is applicable to violent crime, specifically IPV. Furthermore, tests of control-capacity and control-desire have had mixed results, and vary based on type of crime. This study provides an analysis of whether a conventional and violent crime should lead individuals with high desire-for-control to refrain from offending, in contrast to the positive association between control-desire and corporate offending mentioned above.

METHODOLOGY

Data

The research data for this study were gathered in the first four weeks of the spring semester of 1995 through a self-administered survey distributed among randomly selected graduate and undergraduate students at a large urban university in Florida (see Cochran et al., 2015; Sellers, 1999; Sellers & Bromley, 1996; Sellers et al., 2003; Sellers et al., 2005). To obtain a representative sample, courses from five colleges (Arts and Sciences, Business Administration, Education, Engineering, and Fine Arts) were sampled in proportion to each college's enrollment in respect to the total enrollment of the university. Participation in the study was voluntary, and both response confidentiality and respondent anonymity were assured to the respondents, as well as informed consent being obtained from the participant before the administration of the survey.

The sample targeted through this sampling strategy consisted of 2,500 students. The response rate of 73% could be attributed to factors such as restriction to unique enrollment (meaning students registered in more than one sampled course were not counted more than once), absenteeism, incomplete surveys, and decisions not to participate by the students, resulting in a total sample size of 1,826. For this study, the sample was further restricted to students who reported current involvement in an intimate relationship (married or dating/cohabitating), resulting in a final sample size of $n=1,307$. The sample characteristics reflected the sociodemographic profile of the university's total enrollment (see Table 1).

Table 1: Descriptive Statistics of Sample

Sex	Male: Female:	35% 65%
Race	White: Nonwhite:	74% 26%
Age:	Mean: Standard deviation: Range:	24.5 7.02 17—67

The self-report survey was designed to specifically test the efficacy of Gottfredson and Hirschi's theory of self-control, from which control-capacity measures are derived, as well as Akers' social learning theory, providing some of the measures of control-desire, on intimate partner violence. Though there is potential weakness in the measurement of Tittle, Ward, and Grasmick's (2004) theoretical tenets as the survey was not designed to explicitly test the conceptualization of control-capacity as well as control-desire, control-capacity aligns directly with self-control theory. Likewise, elements of learning theory can be likened to the components of self-control desire, as noted by Tittle and colleagues (2004); one can see it as definitions helping to shape morality, differential reinforcement involving sanctions, both formal and informal, as well as the expected utility of IPV perpetration, and differential association exerting general influence on both.

Dependent Variable

Intimate Partner Violence

The dependent variable of interest is an index of the number of different forms of IPV perpetration the respondent has committed against their current partner. Respondents were questioned, for both current and prior dating and marital relationships, about nine situations drawn from Straus's (1979) Conflict Tactics Scale (CTS). Specifically, the survey asked how many times they had done each of the following things to their partner in a current or past

committed relationship or marriage: (1) threatened to hit or throw something at them, (2) threw something at their partner, (3) pushed, grabbed, or shoved their partner, (4) slapped their partner, (5) kicked, bit, or hit with their fist, (6) hit or tried to hit with something, (7) beat up their partner, (8) threatened their partner with a knife or gun, or (9) used a knife or gun against their partner. The response options were never (coded 0), once (coded 1), twice (coded 2), 3 to 5 times (coded 3), 6 to 10 times (coded 4), 11 to 20 times (coded 5), and 21 or more times (coded 6). As the distribution for each item was skewed, particularly amongst more severe forms of IPV, all items were dichotomized. For each item, if the respondent indicated they had engaged in the act one or more times, they were given a 1; all others were coded as 0. The nine items were then added together to form the IPV index.

Using a count index for the dependent variable of IPV perpetration is appropriate in that it provides an indication of the respondent's level of IPV involvement while limiting the contribution of the less serious offenses. The variety index is similar to a variety scale, identified by Sweeten (2012) as more efficient than common dichotomous or frequency scales that are sensitive to high frequency items. Like other studies using variety scales, the index is composed of non-negative integers with at least 25% zeros. Though frequency scales maximize differences between individuals, they exaggerate the influence of the more commonly reported minor forms; variety scales minimize the relative influence while maintaining difference between the respondents. Additionally, variety scales reduce the skew seen in frequency scales (Sweeten, 2012). The resulting IPV variety index has a mean of 0.68, a standard deviation of 1.41, and a range of 0-9.

The IPV index of Straus's Conflict Tactics Scale (1979) has received criticism for its inclusion of minor incidents (such as insulting one's partner) without clear distinction from

severe forms of IPV, as well as exclusion of other severe forms (such as choking or burning), which could result in missing respondents that had only engaged in those specific acts. To account for this, Straus revisited the CTS, creating better operationalization between minor and severe forms, adding forms of violence, and differentiating between physical assault, psychological aggression and negotiation in the Revised Conflict Tactics Scale (Straus, 1996). As the data for this study was gathered in 1995, the survey questions were designed based on the original Conflict Tactics Scale (1979). To safeguard against inflated reports of IPV perpetration due to minor forms, the four step modeling process used in this study is employed once for the full IPV index, and again for a reduced form IPV index (index 2) that is restricted to more serious forms of IPV (those that actually involve contact or bodily harm). For this, the questions concerning threatening to hit or throw something, throwing something, and pushing, grabbing or shoving their partner as forms of IPV perpetration were removed; six of the previous items, asking if they had slapped their partner, kicked bit, or hit with their first, hit or tried to hit with something, beat up their partner, threatened their partner with a knife or gun, or used a knife or gun against their partner were retained. The restricted IPV index has a mean of 0.21, standard deviation of 0.66 and a range of 0-6.

Independent Variables

Capacity/Ability for Self-Control

Gottfredson and Hirschi (1990) proposed individuals with low self-control are characterized by six domains: impulsivity, a preference for simple tasks, risk-taking, a preference for physical over mental activity, self-centeredness, and short tempered. Individuals with low self-control are less capable of self-restraint and thus more prone to acts of deviance and criminality. For this study, respondents were asked four questions about each of the six domains

to measure their level of self-control. Tittle and colleagues (2004) state the most frequently used measure in studies of self-control are cognitive scales, as they illustrate respondent's behavioral tendencies or expression of preferences. They recommend these cognitive scales be utilized to measure the "ability to exercise self-control" (Tittle et al., 2004). The Grasmick et al. (1993) cognitive scale is used most often, including in their own study. Likewise, the 24 items that compose self-control capacity in this study are identical to those developed by Grasmick et al. (1993).

Impulsivity was measured by the questions (1) "I don't devote much thought and effort to preparing for the future", (2) "I often do whatever brings me pleasure here and now even at the cost of some distant goal", (3) "I'm more concerned with what happens to be in the short run than in the long run", and (4) "I often act at the spur of the moment without stopping to think." The items measuring a respondent's preference for simple tasks were (1) "I frequently try to avoid projects that I know will be difficult", (2) "when things get complicated, I tend to quit", (3) the things in my life that are the easiest bring me the most pleasure", and (4) "I dislike really hard tasks that stretch my abilities to the limit." Risk-taking was measured by the questions (1) "Sometimes I'll take a risk just for the fun of it", (2) "I sometimes find it exciting to do things for which I might get in trouble", (3) "I like to test myself every now and then by doing something a little risky", and (4) "excitement and adventure are more important to me than peace and security." A preference for physical over mental tasks, or physicality, was measured by the questions (1) "if I had a choice, I would almost always rather do something physical than something mental", (2) "I almost always feel better when I am on the move rather than sitting and thinking", (3) "I like to get out and do things more than I like to read or think about things", and (4) "I seem to have more energy and a greater need for activity than most others my age."

Self-centeredness was measured by the questions (1) “I try to look out for myself first, even if it means making things difficult for other people”, (2) “I’m not very sympathetic to other people when they are having problems”, (3) “if things upset other people, it’s their problem, not mine”, and (4) “I will try to get the things I want even when I know it’s causing problems for other people.” Lastly, a respondent’s proneness to temper is measured by the questions (1) “often when I’m angry I feel more like hurting people than talking to them about why I’m angry”, (2) “I lose my temper pretty easily”, (3) “when I’m really angry, other people better stay away from me”, and (4) “when I have a serious disagreement with someone, it’s hard for me to talk calmly without getting upset”. Response options for items were presented as a Likert scale, asking the respondent to indicate for each question whether they strongly disagree, disagree, agree, or strongly agree, coded 1 through 4 respectively. The 24 items were entered into a principal components factor analysis that indicated six factors with an eigenvalue greater than one, but a scree discontinuity test indicated that as the difference between the first and second factors (2.93) is significantly larger than the difference between the second and third factors (0.39), a single factor solution best fit the data. The single factor reproduced 23% of the variation among the 24 items, with factor loadings between 0.24 and 0.61. The items were combined into a weighted additive scale, yielding a Cronbach’s alpha of 0.85. Higher scores on the scale were indicative of higher levels of self-control.

Interest in/Desire to Exercise Self-Control

Formal sanctions

In measuring control-desire, Tittle and colleagues (2004) asked their respondents if they thought they would be caught if they committed various offenses. The first component of this study’s control-desire measures the perceptions of formal sanctions one would receive for

engaging in intimate partner violence. This variable is concerned with the respondent's anticipated certainty and severity of the formal sanctions. To measure certainty, respondents were asked "If someone like yourself were to use physical actions (such as hitting, slapping, kicking, punching, etc.) against a spouse or partner in a disagreement, how likely is it that you would be reported to the police?" with a four-point ordinal scale measuring very unlikely (1), somewhat unlikely (2), somewhat likely (3), and very likely (4). To measure severity, respondents were asked "If someone like yourself were reported to the police for using physical actions (such as hitting, slapping, kicking, punching, etc.) against a spouse or partner in a disagreement, what do you think is the worst thing that would happen to you?", options consisting of nothing (0), warned and released (1), arrested (2), taken to court (3), have a restraining order against them (4), probation or a rehab program (5), or serve jail time (6). Certainty and severity were multiplied to produce a certainty/severity scale.

Significant others' definitions

Tittle and colleagues (2004) also measured the perceived loss of respect from people whose opinions they valued as a consequence for engaging in various offenses as an indicator of control-desire. This approach contends that others' definitions and reactions have an influence on one's level of control-desire, an informal reinforcement. Two measures of informal sanctions are included in this study. The first of these, the second component of control-desire and used in the present study is a scale measuring significant others' attitudes concerning IPV perpetration. Respondents were asked to indicate the extent to which they believed their mother, father, best friend, and current partner would approve or disapprove of using physical actions (hitting, slapping, etc.) against their partner in a disagreement. Response options were strongly approve (coded 1), approve (coded 2), disapprove (coded 3), and strongly disapprove (coded 4). The four

items (mother, father, best friend, and partner's definition) were entered into a principal component factor analysis, yielding a single factor solution reproducing 42% of the variation between the items, with factor loadings between 0.46 and 0.73. The items were combined into a weighted additive scale, each item weighted by its factor loading, with a Cronbach's alpha of 0.52. Each item had high face validity and the removal of any item did not improve the alpha. Higher scores on the scale are indicative of higher perceptions of significant others' disapproval, and are anticipated to result in higher desire to exercise self-control.

Significant others' reactions

The third component is a scale measuring the perception of severity of the informal sanctions they would anticipate being imposed on them by people whose opinions they value, should they engage in IPV. Respondents were asked "If you have ever used physical actions against a spouse or partner in a disagreement, what has been the reaction of each of the following after you have used physical actions against a partner?" or, if they've never engaged in IPV perpetration, "If you have never used physical actions against a spouse or partner in a disagreement, what do you think would be the reaction of each of the following if you were to use such physical actions against a partner?" The questionnaire inquired into the reaction of one's spouse/partner, friends, parents, and other relatives, with response options being disapprove and report to authorities (1), disapprove and try to stop it (2), disapprove but do nothing (3), neither approve nor disapprove (4), or approve and encourage it (5). These items were reverse coded for higher scores to indicate more severe informal sanctions, and thus a higher desire for self-control. The four items were entered into a principal components factor analysis that produced a single factor solution reproducing 75% of the variation among items,

with factor loadings between 0.73 and 0.91. The items were then combined into a weighted additive scale, each item again weighted by its factor loading, with a Cronbach's alpha of 0.89.

Expected utility

The fourth component is an analysis of the expected utility of IPV perpetration. Though not an indicator of control-desire expressly proposed by Tittle et al. (2004), they allude to the process by which an individual makes a rational choice as being an influential element in one's control-desire. An individual perceiving the net cost of IPV perpetration as being costlier than rewarding is less likely to see it as a viable option and more likely to desire to restrain themselves. Respondents were asked "If you have ever used physical actions (such as hitting, kicking, slapping, punching, etc.) against a spouse or partner in a disagreement, which of the following things have happened as a result of such action?" or, if they've never engaged in IPV perpetration, "If you have never used physical actions (such as hitting, kicking, slapping, punching, etc.) against a spouse or partner in a disagreement, which of the following things do you think would happen as a result of such action?" and told to check all that applied for sixteen items. The options "It made my relationship even more stressful", "My friends criticized me", "I got arrested", "It made me feel out of control", "I felt ashamed", "It made the argument worse", "My family criticized me", and "I felt guilty" are statements regarding the costs for engaging in IPV. The options "It gave me a satisfying or rewarding feeling", "It made me feel more masculine or tough", "It ended the argument", "It got my partner off my back", "I felt powerful", "My friends respected me more", "I felt more in control", and "My partner respected me more" are statements concerning "rewards" of engaging in IPV. Rewards were subtracted from costs to assess the overall expected utility. Higher scores indicate a higher perceived cost of IPV perpetration, and thus a greater desire to refrain from engaging in IPV.

Morality

Lastly, the fifth component is a scale representing the individual morality of the respondent. Tittle and colleagues (2004) utilized a general morality—“it is always morally wrong to...”—but for this study, the morality scale consists of general definitions regarding the law and IPV. Respondents were asked to indicate the extent to which they agreed or disagreed with each of the following statements: (1) “We all have a moral duty to abide by the law”, (2) “Laws against the use of physical violence, even in intimate relationships, should be obeyed”, (3) “It’s OK to break the law if we do not agree with it” (reverse coded), (4) “It is against the law for a man to use violence against a woman, even if they are in an intimate relationship”, (5) “It is against the law for a woman to use violence against a man, even if they are in an intimate relationship”, and (6) “In dating relationships, physical abuse is never justified”. Response items were fixed along an ordinal scale of strongly disagree (1), disagree (2), agree (3), and strongly agree (4). Respondents were also asked to indicate the extent to which they personally approved or disapproved of using physical actions (hitting, slapping, etc.) against their partner in a disagreement. Response options were strongly approve (coded 1), approve (coded 2), disapprove (coded 3), and strongly disapprove (coded 4). The seven items were entered into a principal components factor analysis that produced a two factor solution based on the Kaiser rule, but the scree discontinuity test indicated that a single factor best fit the data, due to the difference between the first and second factors (1.69) being much greater than the difference between the second and third factors (0.08). This single factor reproduced 39% of the variation among the items, with factor loadings between 0.47 and 0.79. The seven items were combined into a weighted additive scale with a Cronbach’s alpha of 0.73, higher scores reflective of higher morality, and likely higher desire to restrain themselves.

The descriptive statistics for the dependent and independent variables are shown in Table

2. After the construction of the scales, all were standardized to be measured on a common metric. Table 2 reports both the standardized and unstandardized univariate statistics.

Table 2: Descriptive Statistics of Variables in the Analyses

	\bar{X} Unstandardized, (standardized)	SD Unstandardized, (standardized)	Min Unstandardized, (standardized)	Max Unstandardized, (standardized)
Full IPV index	.683	1.41	0	9
Severe IPV index	.213	.661	0	6
Grasmick scale	-22.7, (0)	3.89, (1)	-41.2, (-4.85)	-12.0, (2.81)
Formal sanctions	.385, (0)	3.71, (1)	-8.98, (-2.52)	16.7, (4.39)
Significant others' definitions	.0500, (0)	1.69, (1)	-11.0, (-6.55)	1.06, (.595)
Significant others' reactions	-.127, (0)	3.03, (1)	-12.2, (-3.97)	6.00, (2.02)
Net costs	4.19, (0)	2.60, (1)	-7, (-4.42)	8, (1.50)
Morality	.0776, (0)	2.70, (1)	-14.3, (-5.33)	2.13, (.759)

Analytic Plan

As the dependent variables of the counts of intimate partner violence perpetration are overdispersed, negative binomial regressions are employed. For each dependent variable, seven models are examined. The first model examines the direct independent effects of capacity for control and desire for control on IPV perpetration, and the direct relative effects of control-capacity on each of the five measures of control-desire. The second model examines the interaction of control-capacity and control-desire by adding a series of capacity and desire cross-product terms. These are done in two ways: first with all five cross-product terms added to model 1, and secondly with each individual capacity X desire cross-product term included one at a time in individual models. This seven-step modeling process is employed once for the full form IPV index and again for IPV index 2 restricted to more serious IPV. For all negative binomial regressions, a measure of opportunity is used as an offset variable, a variable that measures the data under a pre-determined period (or exposure) rather than a rate of absolute

numbers (or count). An offset variable adjusts for the amount of opportunity an event, here the perpetration of IPV, has to occur. As the perpetration of physical IPV requires the presence of both parties (offender and victim), respondents that have been in longer relationships likely have more opportunities to engage in acts of IPV against their partner. Specifically, respondents were asked to report the length of their current relationship in the number of years and months, which was converted to number of months to standardize all responses. Respondents indicated their relationship length in the number of years and months they had been with their partner; in measuring opportunity, years were converted to 12 months in order to standardize all responses to number of months they had been together. The dichotomous variable of gender was dummy coded (with female as the reference category) and used as a statistical control variable.

RESULTS

The zero-order correlations among the variables of interest are presented in Table 3. The results from this bivariate analysis indicate that for both the full and severe IPV variety index, control-capacity and four of the five measures of control-desire attain significance and in the predicted theoretical direction. Respondents who report high levels of self-control capacity ($r = -.14$ and $-.12$, respectively), perceive more severe formal sanctions ($r = -.08$ and $-.07$), believe the significant others in their life would be disapproving of IPV ($r = -.14$ and $-.13$) and negatively react to the respondent's use of it ($r = -.26$ and $-.23$), and estimate a higher cost of IPV ($r = -.17$ and $-.14$) are less likely to report IPV perpetration. Morality is significantly correlated with the full IPV index, indicating that as a respondent's level of morality increases, their likelihood of offense decreases ($r = -.07$). It fails to attain significance, however, for the severe IPV index ($r = -.05$).

The results from the seven negative binomial regression models for both the full and severe IPV variety index are presented in Table 4. Model 1 examines the direct independent effects of control-capacity and the five measures of control-desire on IPV perpetration, controlling for the effects of gender (0=female, 1=male). For the full IPV index with the included control variable, the relationship between IPV perpetration and respondents' level of perceived formal sanctions loses significance ($b = -.05$). The effects of capacity for control, significant others' definitions and reactions, and expected utility of IPV on IPV perpetration attain significance. Respondents with high levels of control-capacity ($b = -.24$), whose significant others disapprove of IPV ($b = -.16$) and would react negatively ($b = -.35$), and who

perceive a higher cost ($b = -.23$) are less likely to report IPV perpetration. The effect of morality fails to attain significance ($b = -.05$). When restricted to severe forms of IPV, the findings are largely the same. The effects of formal sanctions and expected utility are not significant, but control-capacity and both measures of informal sanctions are significantly associated with severe IPV perpetration. Those who report high levels of control-capacity and perceive their significant

Table 3: Zero-Order Correlations

	Full IPV index	Severe IPV index	Grasmick scale	Perceived formal sanctions	Significant others' definitions	Significations others' reactions	Expected utility	Morality
Full IPV index	-----							
Severe IPV index	.861***	-----						
Grasmick scale	-.137***	-.116***	-----					
Perceived formal sanctions	-.076**	-.067*	.011	-----				
Significant others' definitions	-.139***	-.130***	.109***	-.006	-----			
Significant others' reactions	-.263***	-.226***	.108***	.162***	.164***	-----		
Expected utility	-.174***	-.141***	.049	.111***	.157***	.350***	-----	
Morality	-.069*	-.054	.238***	-.001	.179***	.024	.127***	-----

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

others as holding negative definitions ($b = -.19$) and negatively reacting ($b = -.53$) to IPV are less likely to report engagement in severe IPV. These results indicate that respondents' control-capacity, significant others' definitions, and significant others' reactions serve as predictors for both the full and severe IPV variety index; expected utility also serves as a predictor for the full

index. Perceived formal sanctions and the morality scale fail to serve as predictors for either index. While control-capacity is always significant, the results are mixed for the five measures of control-desire.

Model 2 in Table 4 examines the interaction between control-capacity and control-desire by including the cross-products of capacity and each of the five individual measures of control-desire. With the exception of significant others' definitions, the results for the measures are consistent with those reported in Model 1. None of the 5 cross-product terms attain significance for the full IPV variety index. In predicting severe IPV, only the cross-product of control-capacity and morality attains significance ($b = .26$), suggesting the interaction of levels of both high self-control capacity and morality indicate a greater likelihood of reporting severe IPV perpetration. That is, severe IPV perpetration is more likely to be reported by those with strong morals against IPV and high levels of self-control capacity. This is a very peculiar and antithetical finding. This may reflect a greater likelihood of self-controlled and moral persons to report their acts of IPV than to engage in IPV.

Models 3 through 7 in Table 4 also examine the interaction between capacity and desire by each examining these cross-product terms of capacity and desire individually. Only one of these ten cross-product terms attains statistical significance, capacity and morality for severe IPV. This indicates that the interaction of control-capacity and morality predicts differently for severe IPV than it does for the full IPV variety index. Furthermore, the prediction is in a positive direction, an anomalous result in comparison to all other variables that work in the predicted direction, suggesting those with high levels of capacity and morality are more likely to report perpetration of severe IPV.

Control-capacity always proves significant, while the predictive efficacy of the five measures of control-desire vary across models and measure of IPV, providing mixed support for the ability of Tittle, Ward, and Grasmick's (2004) theory of control-capacity and control-desire to predict IPV. Only one of the five cross-product terms, control-capacity and morality, attains significance, and its effect is counterintuitive.

Table 4: Negative Binomial Regression Models, Full & Severe IPV Variety Index

Model		Full IPV Variety Index			Severe IPV Variety Index		
		b	SE(b)	p	b	SE(b)	p
Model 1	Control-capacity						
	Grasmick scale	-.235***	.067	<.001	-.323**	.102	.002
	Control-desire						
	Perceived formal sanction	-.052	.077	.497	-.125	.122	.308
	Significant others' definitions	-.163*	.068	.012	-.186*	.093	.044
	Significant others' reactions	-.345***	.074	<.001	-.534***	.112	<.001
	Expected utility	-.230***	.076	.003	-.199	.115	.083
	Morality	-.049	.072	.490	-.041	.107	.702
	Male	-.630	.164	<.001	-1.12	.271	<.001
Constant	-.439	.084	<.001	-1.70	.126	<.001	
	Cross-product terms						
Model 2	Grasmick scale *	-.005	.074	.951	-.189	.124	.129
	Perceived formal sanction						
	Grasmick scale *	.067	.070	.335	-.001	.094	.992
	Significant others' definitions						
	Grasmick scale *	-.001	.080	.987	-.118	.124	.339
	Significant others' reactions						
	Grasmick scale * Expected utility	-.033	.073	.655	.003	.115	.977
Grasmick scale * Morality	.075	.066	.257	.257*	.107	.017	
Model 3	Grasmick scale *	<.001	.071	.998	-.169	.121	.163
	Perceived formal sanction						
Model 4	Grasmick scale *	.085	.063	.181	.088	.072	.224
	Significant others' definitions						
Model 5	Grasmick scale *	-.005	.072	.945	-.121	.111	.276
	Significant others' reactions						
Model 6	Grasmick scale * Expected utility	-.030	.068	.663	-.047	.104	.652
Model 7	Grasmick scale * Morality	.095	.061	.120	.238*	.101	.018

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

Model 2 examines all cross-product terms while Models 3 through 7 each examine an individual cross-product term. Models 2 through 7 also involve the independent effects of self-control capacity and self-control desire items as well as the gender control.

DISCUSSION

The aim of the current study is to test intimate partner violence perpetration among college students using Tittle et. al's (2004) theory of control-capacity and control-desire. The theory is logically consistent with the act of IPV in that individuals are variant both in their capacity to refrain from violence in an intimate relationship and their desire to do so. Few studies have applied the concept of control-desire alongside control-capacity, and the existing tests have largely studied the same acts of deviance and crime; aside from a simple assault measure by the original theorists, none have been studied in the context of a violent crime, thus making IPV an offense of interest.

This study utilized a self-report survey, drawn from a sample of students at a large urban university in Florida, that contained a direct measure of control-capacity and various components of control-desire. Control-capacity and four of the five measures of control-desire (perceived formal sanctions, significant others' definitions, significant others' reactions, and expected utility) prove significant when examining the Pearson correlation coefficient for both the full and severe IPV index. Morality is significantly correlated only with the full IPV variety index. Based on its consistent correlation with IPV in the literature (Sellers, 1999; Chapple & Hope, 2003; Zavala, 2016), it is unsurprising control-capacity is significantly correlated. All four significant measures of control-desire can be seen as involving rational choice; an individual's desire to restrain themselves is affected by their perception of the overall potential awards and

consequences from engaging in IPV. Though the literature does not offer much concerning an offenders' process of rational calculus in IPV perpetration specifically, it does suggest that the formal sanctions, informal sanctions, and overall rewards and costs may be evaluated prior to engagement in violent crime (Bachman, Paternoster, & Ward, 1992; Matsueda, Kreager, & Huizinga, 2006).

Morality is unique from the other four measures of control-desire in that it is unconcerned with the costliness of IPV perpetration and inquires into the respondent's judgment of physical abuse and breaking the law as right or wrong. The morality scale was built using both law-relevant and offense-related questions, both of which have been proven to significantly correlate morality with likelihood to offend (Tittle, Ward, and Grasmick, 2004; Wilkstrom & Svensson, 2010). Morality may be significantly correlated with the full IPV index and not the severe IPV index due to the type of violence. As IPV captured within general samples is nearly exclusively situational couple violence (Johnson & Ferraro, 2000), the data for this study, gathered from a student sample at a large university, is likely more applicable to that phenomenon. If a respondent identifies IPV as morally wrong, they are less likely to succumb to criminal opportunity (Mazerolle, Piquero, & Capowich, 2003).

When examining the direct and independent effects of control-capacity and the five measures of control-desire, control-capacity holds, but perceived formal sanctions loses its ability to significantly predict IPV for both the full and severe IPV variety index. This could be that formal (criminal) sanctions do not have as much deterrent effect and play less of a role in one's desire to exercise self-control. The manner in which significant others define violence against a partner and the degree to which they would react significantly predicts likelihood of respondent's perpetration for both the full and severe index. This indicates individuals place

greater weight on informal sanctions. Literature has already shown that informal sanctions serve as a greater deterrent than formal sanctions (Grasmick & Bursik, 1990), including for IPV (Williams & Hawkins, 1992). The respondent's perception of significant others' reactions explains the likelihood of perpetration better than any other variable, including control-capacity, for both the full and severe IPV index ($b = -.35$ and $b = -.53$, respectively). The explanatory power of significant others' definitions is much weaker at $b = -.16$ for the full index and $b = -.19$ for the severe index. The expected utility of IPV perpetration significantly predicted the full IPV index ($b = -.23$) but did not hold for the severe IPV index. This is likely due to a difference in the nature between the two types of IPV. The full IPV index is more representative of situational couple violence which will likely be viewed as more costly, with little rewards, by the perpetrator. The severe IPV index, on the other hand, is representative of intimate terrorism, and as it is intentional and tactical will yield rewards as well as costs. Morality as an independent variable served as an insufficient predictor of IPV perpetration in the negative binomial regressions.

Four of the five cross-product terms between control-capacity and measures of control-desire (perceived formal sanctions, significant others' definitions, significant others' reactions, and expected utility) did not attain significance for either index, regardless of whether they were analyzed simultaneously or individually. This indicates that the effects of capacity and these measures of desire have independent effects on a respondents' likelihood of reporting IPV perpetration. The interaction of control-capacity and the remaining measure of control-desire, morality, does not significantly predict the full IPV variety index, but gains significance when the index is restricted to severe IPV, both when looking at all interactive terms (Model 2 in Table 4) and looking at the interaction of capacity and morality specifically (Model 7 in Table 4).

Furthermore, it is in a positive direction, contrary to theoretical prediction; individuals having both high levels of control-capacity and high morality were more likely to report severe IPV perpetration. High levels of self-control capacity in regards to severe IPV perpetration is logical in that intimate terrorism is characterized by controlling behavior and strategic tactics to manipulate their partner, rather than reacting to an argument as in situational couple violence. Morality, however, is conflicting. It may be that severe aggressors have a distorted view and deny the frequency and extent of the harm caused. Typically, one views IPV in the context of moral absolutism, such that violence against one's partner is always morally wrong. Abusers, desiring to maintain a positive moral self-concept, engage in self-deception which mediates between their actions and their moral self-concept (Marzana, Vecina, & Alfieri, 2016; Vecina, Chacón, & Pérez-Viejo, 2015). It is further possible that as the morality scale is the only variable regarding the respondent's personal views, it is more susceptible to social desirability bias—that is, the respondents' need to answer what they deem societally acceptable may override accurate responses. Though actual rates of IPV are thought to be underreported for this reason, the questions regarding frequency of IPV perpetration in this survey are worded neutrally (“how many times”); the questions concerning morality have more influential wording (such as “physical abuse is never justified”) and thus may increase their likelihood of responding what they perceive to be the desirable answer (Sugarman & Hotaling, 1997).

This study was not without its limitations. The data used for this study were secondary, derived from a survey designed to test low self-control and social learning theory. Although not specifically designed to test Tittle et al.'s (2004) theory, the Grasmick scale measurements were identical. Further, the theory of control-capacity and control-desire is an integrated theory, pulling from others such as social learning theory, rational choice theory, and deterrence theory.

Elements of all of these were present in the survey and used as measurements for this study. As the data are cross-sectional in nature, causal inferences cannot be made. There are some generalizability issues when utilizing a sample from a university. This is still appropriate for IPV in that the majority of victims are age 18-24 (Truman & Morgan 2014), which comprised 68.6% of the sample. The data were gathered in 1995, which might call into question the timeliness of the data; as this study is simply a test of the applicability of Tittle and colleagues' (2004) theory to IPV perpetration, the age of the data should not be relevant. The dependent variable for this study was created using the CTS1, a scale that has been criticized for its inclusion of minor items, exclusion of other forms of violence, and a lack of delineation between the minor and severe forms. To account for this, two separate IPV indexes were created, one focusing exclusively on the more severe violence. Lastly, some scales used for measurement of control-desire variables had low alphas, indicating potential errors with internal consistency. However, each item used in the scales was representative of measures used in other studies, had high face validity, and the removal of any item failed to improve the alpha.

The results of this study offer a few implications. Firstly, in regards to the nature of IPV, this study indicates that individuals reporting IPV perpetration have low levels of self-control, do not perceive their significant others as negatively defining IPV, do not anticipate negative reactions from their significant others, and do not view IPV as more costly than rewarding. To a lesser extent, those reporting IPV perceive fewer formal sanctions and indicate lower levels of morality. The only significant cross-product term was that of high levels of capacity and high levels of morality, which increased the likelihood of reporting severe IPV perpetration. This antithetical finding requires further analysis.

Policies concerning IPV typically focus on the offender, with a “one-size-fits-all” approach for treatment (Healy, Smith, & O’Sullivan, 1999). A meta-analysis conducted by Babcock, Green, and Robie (2004) found that the effect size of batterers’ treatment on recidivism is small, even for a range of different types. Their response to the ineffectiveness demonstrated is to call for more improved treatment options, noting that tailoring to individualized needs would likely result in greater program success. The current study indicates that informal sanctions, perceptions of significant others’ definitions of IPV and the reaction of significant others to perpetration by the respondent, are of greater consequence to individuals than formal sanctions. It may be beneficial to bring in other elements of the perpetrator’s social networks, such as close family and best friends, into treatment. This is not aligned with current practice; practitioners generally discourage couples counseling, and at least twenty states have standards or guidelines expressly prohibiting it (Healy et al., 1999). In the context of severe IPV, couples’ therapy can increase the risk of frequency and severity of the violence. It fails to treat the non-physical aspects of intimate terrorism such as intimidation and control (Jacobson & Gottman, 1998). In mild to moderate violence, however, therapy involving both offender and victim and perhaps others may improve addressing physical violence. Less severe IPV is more reflective of situational couple violence, which is more likely to be mutual. Stith, Rosen, McCollum and Thomsen (2004) identify that including the partner in counseling may help in stopping that violence. Their study found that violent couples in couples therapy had lower rates of reassault at follow-up than the comparison group, and those in multi-couple group therapies fared even better than those in individual couples counseling. A more networked approach to treatment for lower-risk offenders may see lower rates of recidivism than the current, generally ineffective policies in place.

With a singular exception, cross-product terms of capacity and desire did not work. This study suggests that rather than capacity and desire measures working interactively, control-capacity and control-desire have independent effects on crime. Tittle, Ward, and Grasmick should be commended for their recognition that self-control is not simply a unidimensional concept. His and others' measures of control-desire do correlate significantly with criminal and deviant acts. However, as desire is representative of key tenets from multiple theoretical perspectives, it is unclear whether this is truly an expanded concept of self-control or an instance of theoretical imperialism.

Overall, this study provides mixed support on the ability of Tittle, Ward, and Grasmick's (2004) theory of control-capacity and control-desire to predict the perpetration of IPV. Further tests of this theory are needed, including analyses of possibly interactive effects, particularly in the realm of violent crimes. As the theoretical elements that did not prove significant in this study (namely formal sanctions and morality) have been significant in others, it is important that future researchers utilizing Tittle, Ward, and Grasmick's (2004) test IPV under similar constructs to assess validity.

REFERENCES

- Akers, R. L. (1977). *Deviant behavior: A social learning perspective*. Belmont, CA: Wadsworth.
- Akers, R. L., Krohn, M. D., Lanza-Kaduce, L., & Radosevich, M. (1979). Social learning and deviant behavior: A specific test of a general theory. *American Sociological Review*, 44(4), 636-655.
- Babcock, J. C., Green, C. E., & Robie, C. (2004). Does batterers' treatment work? A meta-analytic review of domestic violence treatment. *Clinical Psychology Review*, 23(8), 1023-1053.
- Bachman, R., Paternoster, R., & Ward, S. (1992). The rationality of sexual offending: Testing a deterrence/rational choice conception of sexual assault. *Law and Society Review*, 26(2), 343-372.
- Bandura, A. (1977). *Social learning theory*. New York: General Learning Press.
- Beccaria, C. (1963[1764]). *On crime and punishment*. Indianapolis: Bobbs-Merril.
- Bell, K. M., & Naugle, A. E. (2008). Intimate partner violence theoretical considerations: Moving towards a contextual framework. *Clinical Psychology Review*, 28(7), 1096-1107.
- Benson, M. L., & Moore, E. (1992). Are white-collar and common offenders the same? An empirical and theoretical critique of a recently proposed general theory of crime. *Journal of Research in Crime and Delinquency*, 29(3), 251-272.
- Bentham, J. (1996[1789]). *The collected works of Jeremy Bentham: An introduction to the principles of morals and legislation*. Clarendon Press.
- Black, D. S., Sussman, S., & Unger, J. B. (2010). A further look at the intergenerational transmission of violence: Witnessing interparental violence in emerging adulthood. *Journal of Interpersonal Violence*, 25(6), 1022-1042.
- Bonomi, A., Nichols, E., Kammes, R., & Green, T. (2017). Sexual violence and intimate partner violence in college women with a mental health and/or behavior disability. *Journal of Women's Health*. (Electronically published ahead of print).

- Buzawa, E. S., & Buzawa, C. G. (2003). *Domestic violence: The criminal justice response*. Sage.
- Caetano, R., Vaeth, P. A., & Ramisetty-Mikler, S. (2008). Intimate partner violence victim and perpetrator characteristics among couples in the United States. *Journal of Family Violence, 23*(6), 507-518.
- Cannon, E. A., Bonomi, A. E., Anderson, M. L., & Rivara, F. P. (2009). The intergenerational transmission of witnessing intimate partner violence. *Archives of Pediatrics & Adolescent Medicine, 163*(8), 706-708.
- Cappell, C., & Heiner, R. B. (1990). The intergenerational transmission of family aggression. *Journal of Family Violence, 5*(2), 135-152.
- Carver, C. S., & Scheier, M. F. (1982). Control theory: A useful conceptual framework for personality-social, clinical, and health psychology. *Psychological Bulletin, 92*(1), 111-135.
- Centers for Disease Control and Prevention (CDC). (2016). "Intimate partner violence."
- Cho, H. (2012). Racial differences in the prevalence of intimate partner violence against women and associated factors. *Journal of Interpersonal Violence, 27*(2), 344-363.
- Cochran, J. K., Aleksa, V., & Chamlin, M. B. (2006). Self-restraint: A study on the capacity and desire for self-control. *Western Criminology Review, 7*(3), 27-40.
- Cochran, J. K., Jones, S., Jones, A. M., & Sellers, C. S. (2015). Does criminal propensity moderate the effects of social learning theory variables on intimate partner violence?. *Deviant Behavior, 37*(9), 965-976.
- Cochran, J. K., Maskaly, J., Jones, S., & Sellers, C. S. (2017). Using structural equations to model Akers' social learning theory with data on intimate partner violence. *Crime & Delinquency, 63*(1), 39-60.
- Cochran, J. K., Sellers, C. S., Wiesbrock, V., & Palacios, W. R. (2011). Repetitive intimate partner victimization: An exploratory application of social learning theory. *Deviant Behavior, 32*(9), 790-817.
- Coker, A. L., Smith, P. H., McKeown, R. E., & King, M. J. (2000). Frequency and correlates of intimate partner violence by type: physical, sexual, and psychological battering. *American Journal of Public Health, 90*(4), 553-559.
- Cooper, A., & Smith, E. L. (2011). *Homicide trends in the United States, 1980-2008*. BiblioGov.

- Corvo, K., & Carpenter, E. H. (2000). Effects of parental substance abuse on current levels of domestic violence: A possible elaboration of intergenerational transmission processes. *Journal of Family Violence, 15*(2), 123-135.
- Craig, J. M., & Piquero, N. L. (2016). The effects of low self-control and desire-for-control on white-collar offending: A replication. *Deviant Behavior, 37*(11), 1308-1324.
- DiLalla, L. F., & Gottesman, I. I. (1991). Biological and genetic contributors to violence: Widom's untold tale. *Psychological Bulletin, 109*(1), 125-129.
- Ehrensaft, M. K., Cohen, P., Brown, J., Smailes, E., Chen, H., & Johnson, J. G. (2003). Intergenerational transmission of partner violence: a 20-year prospective study. *Journal of Consulting and Clinical Psychology, 71*(4), 741-753.
- El-Bassel, N., Gilbert, L., Wu, E., Go, H., & Hill, J. (2005). Relationship between drug abuse and intimate partner violence: a longitudinal study among women receiving methadone. *American Journal of Public Health, 95*(3), 465-470.
- El-Bassel, N., Gilbert, L., Witte, S., Wu, E., Gaeta, T., Schilling, R., & Wada, T. (2003). Intimate partner violence and substance abuse among minority women receiving care from an inner-city emergency department. *Women's Health Issues, 13*(1), 16-22.
- Fagan, J. (1996). *The criminalization of domestic violence: Promises and limits*. US Department of Justice, Office of Justice Programs, National Institute of Justice.
- Flanzer, J. (2005). The status of health services research on adjudicated drug-abusing juveniles: Selected findings and remaining questions. *Substance Use & Misuse, 40*(7), 887-911.
- Franklin, C. A., Bouffard, L. A., & Pratt, T. C. (2012). Sexual assault on the college campus: Fraternity affiliation, male peer support, and low self-control. *Criminal Justice and Behavior, 39*(11), 1457-1480.
- Franklin, C. A., & Kercher, G. A. (2012). The intergenerational transmission of intimate partner violence: Differentiating correlates in a random community sample. *Journal of Family Violence, 27*(3), 187-199.
- Geis, G. (2000). On the absence of self-control as the basis for a general theory of crime: A critique. *Theoretical Criminology, 4*(1), 35-53.
- Gelles, R. J. (1980). Violence in the family: A review of research in the seventies. *Journal of Marriage and the Family, 42*(4), 873-885.

- Gershon, R. R., Barocas, B., Canton, A. N., Li, X., & Vlahov, D. (2009). Mental, physical, and behavioral outcomes associated with perceived work stress in police officers. *Criminal Justice and Behavior*, 36(3), 275-289.
- Godenzi, A., Schwartz, M. D., & Dekeseredy, W. S. (2001). Toward a gendered social bond/male peer support theory of university woman abuse. *Critical Criminology*, 10(1), 1-16.
- Gottfredson, M. R., & Hirschi, T. (1990). *A general theory of crime*. Stanford University Press.
- Gracia, E. (2004). Unreported cases of domestic violence against women: Towards an epidemiology of social silence, tolerance, and inhibition. *Epidemiology & Community Health*, 58(7), 536-537.
- Grasmick, H. G., & Bursik Jr, R. J. (1990). Conscience, significant others, and rational choice: Extending the deterrence model. *Law and Society Review*, 24(3), 837-862.
- Ha, O. K., & Beauregard, E. (2016). Sex offending and low self-control: An extension and test of the general theory of crime. *Journal of Criminal Justice*, 47, 62-73.
- Healey, K., Smith, C., & O'Sullivan, C. (1999). *Batterer intervention: Program approaches and criminal justice strategies*. DIANE Publishing.
- Heise, L. L. (2012). *Determinants of partner violence in low and middle-income countries: exploring variation in individual and population-level risk* (Doctoral dissertation).
- Hines, D. A., & Saudino, K. J. (2002). Intergenerational transmission of intimate partner violence: A behavioral genetic perspective. *Trauma, Violence, & Abuse*, 3(3), 210-225.
- Hunnicut, G. (2009). Varieties of patriarchy and violence against women: Resurrecting “patriarchy” as a theoretical tool. *Violence Against Women*, 15(5), 553-573.
- Jacobson, N. S., & Gottman, J. M. (1998). *When men batter women: New insights into ending abusive relationships*. Simon and Schuster.
- Jankowski, M. K., Leitenberg, H., Henning, K., & Coffey, P. (1999). Intergenerational transmission of dating aggression as a function of witnessing only same sex parents vs. opposite sex parents vs. both parents as perpetrators of domestic violence. *Journal of Family Violence*, 14(3), 267-279.
- Jewkes, R. (2002). Intimate partner violence: causes and prevention. *The Lancet*, 359, 1423-1429.

- Johnson, M. P. (1995). Patriarchal terrorism and common couple violence: Two forms of violence against women. *Journal of Marriage and the Family*, 57(2), 283-294.
- Johnson, M. P. (2010). *A typology of domestic violence: Intimate terrorism, violent resistance, and situational couple violence*. Upne.
- Johnson, M. P., & Ferraro, K. J. (2000). Research on domestic violence in the 1990s: Making distinctions. *Journal of Marriage and Family*, 62(4), 948-963.
- Kalmuss, D. (1984). The intergenerational transmission of marital aggression. *Journal of Marriage and the Family*, 46(1), 11-19.
- Kelly, J. B., & Johnson, M. P. (2008). Differentiation among types of intimate partner violence: Research update and implications for interventions. *Family Court Review*, 46(3), 476-499.
- Kerley, K. R., Xu, X., & Sirisunyaluck, B. (2008). Self-control, intimate partner abuse, and intimate partner victimization: Testing the general theory of crime in Thailand. *Deviant Behavior*, 29(6), 503-532.
- Kwong, M. J., Bartholomew, K., Henderson, A. J., & Trinke, S. J. (2003). The intergenerational transmission of relationship violence. *Journal of Family Psychology*, 17(3), 288-301.
- Longshore, D., & Turner, S. (1998). Self-control and criminal opportunity cross-sectional test of the general theory of crime. *Criminal Justice and Behavior*, 25(1), 81-98.
- MacDonald, Z. (2002). Official crime statistics: their use and interpretation. *The Economic Journal*, 112(477), 85-106.
- Mahserjian, C. (2016). We're all in this together: A global comparison on domestic violence and the means necessary to combat it. *Albany Law Review*, 79(1), 297-324.
- Marzana, D., Vecina, M. L., & Alfieri, S. (2016). The morality of men convicted of domestic violence: how it supports the maintenance of the moral self-concept. *Violence and Victims*, 31(6), 1155-1170.
- Matsueda, R. L., Kreager, D. A., & Huizinga, D. (2006). Deterring delinquents: A rational choice model of theft and violence. *American Sociological Review*, 71(1), 95-122.
- Mazerolle, P., Piquero, A. R., & Capowich, G. E. (2003). Examining the links between strain, situational and dispositional anger, and crime: Further specifying and testing general strain theory. *Youth & Society*, 35(2), 131-157.

- Mihalic, S. W., & Elliott, D. (1997). A social learning theory model of marital violence. *Journal of Family Violence, 12*(1), 21-47.
- Miller, S. L., & Burack, C. (1993). A Critique of Gottfredson and Hirschi's General Theory of Crime: Selective (In) Attention to Gender and Power-Positions. *Women & Criminal Justice, 4*(2), 115-134.
- National Coalition Against Domestic Violence (NCADV). (2015). "Domestic violence national statistics."
- Payne, B. K., Higgins, G. E., & Blackwell, B. (2010). Exploring the link between self-control and partner violence: Bad parenting or general criminals. *Journal of Criminal Justice, 38*(5), 1015-1021.
- Piquero, A. R., MacDonald, J., Dobrin, A., Daigle, L. E., & Cullen, F. T. (2005a). Self-control, violent offending, and homicide victimization: Assessing the general theory of crime. *Journal of Quantitative Criminology, 21*(1), 55-71.
- Piquero, N., L., Exum, M., L., & Simpson, S. S. (2005b). Integrating the desire-for-control and rational choice in a corporate crime context. *Justice Quarterly, 22*(2), 252-280.
- Piquero, N., L., Schoepfer, A., & Langton, L. (2010). Completely out of control or the desire to be in complete control? How low self-control and the desire for control relate to corporate offending. *Crime & Delinquency, 56*(4), 627-647.
- Pratt, T. C., & Cullen, F. T. (2000). The empirical status of Gottfredson and Hirschi's general theory of crime: A meta-analysis. *Criminology, 38*(3), 931-964.
- Pratt, T. C., Cullen, F. T., Sellers, C. S., Winfree Jr, L. T., Madensen, T. D., Daigle, L. E., & Gau, J. M. (2010). The empirical status of social learning theory: A meta-analysis. *Justice Quarterly, 27*(6), 765-802.
- Rennison, C., & Planty, M. (2003). Nonlethal intimate partner violence: Examining race, gender, and income patterns. *Violence and Victims, 18*(4), 433-443.
- Schoepfer, A., Piquero, N. L., & Langton, L. (2014). Low self-control versus the desire-for-control: An empirical test of white-collar crime and conventional crime. *Deviant Behavior, 35*(3), 197-214.
- Schreck, C. J. (1999). Criminal victimization and low self-control: An extension and test of a general theory of crime. *Justice Quarterly, 16*(3), 633-654.

- Sellers, C. S. (1999). Self-control and intimate violence: An examination of the scope and specification of the general theory of crime. *Criminology*, 37(2), 375-404.
- Sellers, C. S., & Bromley, M. L. (1996). Violent behavior in college student dating relationships: Implications for campus service providers. *Journal of Contemporary Criminal Justice*, 12(1), 1-27.
- Sellers, C. S., Cochran, J. K., & Winfree Jr, L. T. (2003). Social learning theory and courtship violence: An empirical test. *Social Learning Theory and the Explanation of Crime*, 109-127.
- Sellers, C. S., Cochran, J. K., & Branch, K. A. (2005). Social learning theory and partner violence: A research note. *Deviant Behavior*, 26(4), 379-395.
- Simons, R. L., WU, C. I., Johnson, C., & Conger, R. D. (1995). A test of various perspectives on the intergenerational transmission of domestic violence. *Criminology*, 33(1), 141-172.
- Skinner, B. F. (1938). *The behaviour of organisms: An experimental analysis*. D. Appleton-Century Company Incorporated.
- Smithey, M., & Straus, M. A. (2004). Primary prevention of intimate partner violence. In: Kury H and Oberfell-Fuchs J, (eds). "Crime prevention-New approaches," Mainz/Germany: Weisser Ring Gemeinnutzige Verlags-GmbH, 239-276.
- Stith, S. M., Rosen, H., McCollum, E. E., & Thomsen, C. J. (2004). Treating intimate partner violence within intact couple relationships: Outcomes of multi-couple versus individual couple therapy. *Journal of Marital and Family Therapy*, 30(3), 305-318.
- Stith, S. M., Rosen, K. H., Middleton, K. A., Busch, A. L., Lundeberg, K., & Carlton, R. P. (2000). The intergenerational transmission of spouse abuse: A meta-analysis. *Journal of Marriage and Family*, 62(3), 640-654.
- Stith, S. M., Smith, D. B., Penn, C. E., Ward, D. B., & Tritt, D. (2004). Intimate partner physical abuse perpetration and victimization risk factors: A meta-analytic review. *Aggression and Violent Behavior*, 10(1), 65-98.
- Stuart, G. L., Temple, J. R., Follansbee, K. W., Bucossi, M. M., Hellmuth, J. C., & Moore, T. M. (2008). The role of drug use in a conceptual model of intimate partner violence in men and women arrested for domestic violence. *Psychology of Addictive Behaviors*, 22(1), 12.
- Sugarman, D. B., & Hotaling, G. T. (1997). Intimate violence and social desirability: A meta-analytic review. *Journal of Interpersonal Violence*, 12(2), 275-290.

- Sutherland, E. H., & Cressey, D. R. (1947). *Principles of criminology*. Philadelphia: Lippincott.
- Swan, S. C., Gambone, L. J., Caldwell, J. E., Sullivan, T. P., & Snow, D. L. (2008). A review of research on women's use of violence with male intimate partners. *Violence and Victims, 23*(3), 301-314.
- Tittle, C. R., Ward, D. A., & Grasmick, H. G. (2004). Capacity for self-control and individuals' interest in exercising self-control. *Journal of Quantitative Criminology, 20*(2), 143-172.
- Tjaden, P. G., & Thoennes, N. (2000). Extent, nature, and consequences of intimate partner violence. Washington, DC: National Institute of Justice / Centers for Disease Control and Prevention.
- Truman, J. L., & Morgan, R. E. (2015). Nonfatal domestic violence, 2003-2012. *Journal of Current Issues in Crime, Law & Law Enforcement, 8*(4).
- Vecina, M. L., Chacón, F., & Pérez-Viejo, J. M. (2016). Moral absolutism, self-deception, and moral self-concept in men who commit intimate partner violence: a comparative study with an opposite sample. *Violence against Women, 22*(1), 3-16.
- Wareham, J., Boots, D. P., & Chavez, J. M. (2009). A test of social learning and intergenerational transmission among batterers. *Journal of Criminal Justice, 37*(2), 163-173.
- Whitaker, D. J., Haileyesus, T., Swahn, M., & Saltzman, L. S. (2007). Differences in frequency of violence and reported injury between relationships with reciprocal and nonreciprocal intimate partner violence. *American Journal of Public Health, 97*(5), 941-947.
- Wikström, P. O. H., & Treiber, K. (2007). The role of self-control in crime causation beyond Gottfredson and Hirschi's general theory of crime. *European Journal of Criminology, 4*(2), 237-264.
- Wikström, P. O. H., & Svensson, R. (2010). When does self-control matter? The interaction between morality and self-control in crime causation. *European Journal of Criminology, 7*(5), 395-410.
- Williams, K. R., & Hawkins, R. (1992). Wife assault, costs of arrest, and the deterrence process. *Journal of Research in Crime and Delinquency, 29*(3), 293-310.
- Zavala, E. (2016). A multi-theoretical framework to explain same-sex intimate partner violence perpetration and victimization: a test of social learning, strain, and self-control. *Journal of Crime and Justice, 1-19*. Advance online publication.