Spring 5-5-2021

Examining the correlation between the personality traits of aggression and impulsivity with coercive control victimization: A study of students at a southeastern urban university

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Recommended Citation

Chafin, Travis C., "Examining the correlation between the personality traits of aggression and impulsivity with coercive control victimization: A study of students at a southeastern urban university." Thesis, Georgia State University, 2021.
doi: https://doi.org/10.57709/22557962

ABSTRACT

EXAMINING THE CORRELATION BETWEEN THE PERSONALITY TRAITS OF AGGRESSION AND IMPULSIVITY WITH COERCIVE CONTROL VICTIMIZATION: A STUDY OF STUDENTS AT A SOUTHEASTERN URBAN UNIVERSITY

By

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MAY, 2021

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Coercive control victimization, a type of intimate partner violence involving Manipulation and subjugation through maladaptive relationship tactics, has begun to garner research attention. In part, research has identified that history of violence, sexual assault, and previous abuse are risk factors for coercive control victimization. What has been less explored is whether personality traits, such as impulsivity and aggression, are linked to victimization. To investigate this possibility, data were obtained from the Biopsychological Correlates of College Victimization Study, a survey of 1,211 U.S. college students attending one university in the Southeast. Students were asked about their coercive control experiences and given assessments to measure dimensions of impulsivity, aggression, and other risk factors. The findings in this study indicate that there is a relationship between coercive control victimization, aggression, and impulsivity. A discussion of implications for policy and prevention is included.

Keywords: *coercive control, aggression, impulsivity, personality traits*

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A Thesis Submitted in Partial Fulfillment
of the Requirements for the Degree
of
Master of Science Criminal Justice
in the
Andrew Young School of Policy Studies
of
Georgia State University

GEORGIA STATE UNIVERSITY
2021

ACCEPTANCE

This thesis was prepared under the direction of the candidate's Thesis Committee. It has been approved and accepted by all members of that committee, and it has been accepted in partial fulfillment of the requirements for the degree of Master of Science Criminal Justice in the Andrew Young School of Policy Studies of Georgia State University.

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May, 2021

DEDICATION

First and foremost, I must dedicate the work I have done on this thesis to my extraordinary wife, Alicia Chafin. Without her, none of this would be possible. If it were not for her belief and encouragement in me, I quite possibly would have never chosen to attempt college as a middle-aged man. Her hard work and success in her own field have been an inspiration to me, and her ability to run a company and a family awe me to this day. After twenty years of marriage, we are still going strong, and words cannot convey the depth of my love and appreciation for Alicia. Alicia, thank you for all you do, and who you are.

Mom, Dad, and Shanin, thank you for your constant belief in me and the encouragement that you give. You have known me at my worst, I am so proud that I have the chance for you to see me at my best. Love to all of you.

Ansley and Levi, my two children, although you are not children anymore, thank you for being the reason why obtaining my degrees are so important. I hope that you follow in these footsteps, not the ones when I was your age. No matter what, I will always love you and be proud of you. I am so grateful to be your father.

ACKNOWLEDGMENTS

To Dr. Daigle, I would like to express my extreme gratitude for your patience, guidance, and commitment to helping me progress as a student and future academic. Your understanding and compassion has not been lost on me, and I hope that in future I can exemplify the mentorship that you have shown me. Because of you, I am a better writer, scholar, and a better person. I am extremely proud of the work that you have guided me on, and I look forward to more projects together in the future.

Dr. Sabol and Dr. Chen, thank you for agreeing to be on my thesis committee. I asked the both of you because of my great respect for your work and scholarship. I also knew that you would push me to think more and to challenge my ability. Thank the both of you for your valuable time and pushing me to better myself.

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I. Introduction

On February 19, 2020, after suffering burns to her entire body except the sole of one foot, Hannah Clarke struggled to describe to police how her estranged husband had attacked her and their three children with a can of gasoline while she was taking the children to school. As she labored to remain conscious and to continue breathing, Hannah told investigators that Rowan Baxter, whom she possessed a domestic order against, had held her at knifepoint and had her drive the two of them and their three children away from her parents' house. He then proceeded to douse her and their three children (Aaliyah 6, Laianah 4, and Trey 3) with gasoline. As she pulled her vehicle to the side of the road to seek help, he jumped from the car and set them afire. Baxter subsequently stabbed himself in the chest with a knife and prevented bystanders from helping his wife and children until he expired. Hannah, on fire herself, was able to escape the inferno her car had become, and the fire on her was extinguished by an onlooker who had evaded her husband. The three children perished in the blaze. Hannah Clarke passed away shortly after giving her statement to police. Her dying pleas were for medical personnel to help her children, not knowing that they were already deceased.

The depravity and callousness of the acts committed by Rowan Baxter shocked the Australian nation. A month before the murders, Hannah had taken out a protective order and a child custody order. The protective order was issued after Baxter had twisted Hannah's arm in an argument, and the custody order was in response to Baxter kidnapping their oldest daughter for four days (after telling Hannah it was her fault he was doing so). As the public grew more outraged that judicial and law enforcement entities had not prevented the senseless murder, journalists investigated further into the relationship of Hannah Clarke and Rowan Baxter.

Surprisingly, interviews did not uncover a series of violent acts throughout Clarke and Baxter's relationship. Instead, they found almost a decade of psychological abuse and control. Baxter dictated what clothes Hannah could and could not wear, regulated her spending, isolated her from family and friends, and monitored Hannah's phone and emails. Hannah and her parents did not realize the threat that these actions represented, as she told her mother "I was thinking it wasn't abuse because he never hit me" (Gearing, 2020, February 28). After the two separated, Rowan subjected Hannah to numerous threats and heated arguments. Hannah finally realized what Myhill and Hohl (2016) called the "golden thread" of coercive control, that it is a precursor or indicator of future domestic violence or even homicide. It was upon this understanding that Hannah secured a domestic order of protection and custody restrictions. But it was, of course, too late.

This account of the non-physical abuse suffered by Hannah is now realized to be coercive control. Coercive control is considered a form of psychological abuse. However, coercive control abuse delineates from psychological abuse in a significant manner. Psychological abuse is any type of verbal act that has negative consequences on an individual's emotional or mental state, can occur in any type of relationship, and most often is episodic (Centers for Disease Control and Prevention, 2019, February 26). The use of coercive controlling tactics fits within the psychological abuse definition. Coercive control deviates from psychological abuse when it becomes an ongoing pattern of violations, perpetrated by present and former intimate partners, in which manipulation and threats, which are sometimes coupled with physical violence, are used to exert domination and power over another (Stark, 2007). As coercive control tactics are applied to negatively affect the target's emotional or mental state they qualify as a situational psychological abuse but are temporally and executed very differently when used as a systematic

form of abuse. Coercive control was first recognized as an aspect, a possible symptom, of domestic violence by clinicians and researchers in the 1970s. Indeed, coercive control was written about and studied in the same manner as other abusive behaviors, such as striking or degrading an intimate partner. However, Stark (2007) reframed the relationship of coercive control and intimate partner violence from a form of psychological abuse to the underlying foundation for all other forms of abuse. Stark (2007) metaphorically describes coercive control abuse as an invisible cage that traps victims, rendering them unable to escape further cruelties and exploitation. Physical acts of violence are used to reinforce the threats made by an abuser, while the coercive and controlling tactics prevent the target individual from escaping the relationship completely. The manipulative strategies of the perpetrator using coercive control helps to explain why a victim will suffer through years of physical injury, rape, and oppression that can lead to attempted or completed domestic murder. Although Stark examined coercive control in a holistic sense, each tactic, is an abuse. Just as slapping one's partner a single time may not indicate systemic violence in a relationship, the action itself violates another person, so too with coercive control. The coercive control tactics used by perpetrators reduce the victim's sense of self, independence, and support systems (Johnson, 2008; Stark, 2007), whether it is episodic or an ongoing pattern. Some of the methods that an abuser will use include monitoring phone usage and emails, dictating what clothes the victim can wear, isolating from friends and family, and threating violence involving the victim or the victim's loved ones. In many cases of abuse, such as Hannah Clarkes, the use of coercive control by an abuser is not constant. Instead, it is spread out over time, so that the victim may not realize its danger until too late. In many cases, it may be a single instance or occur on rare occasions in a relationship. The ultimate reality

is that to identify coercive control, in whatever form it may take, the tactics used by the perpetrator are the key elements.

Hannah Clarke is one of many coercive control victims. Results from the *National Intimate Partner and Sexual Violence Survey* (Smith et al., 2018) show that over a third of all men and women experienced some form of psychological assault in their lifetime. As a subcategory within psychological abuse, some form of coercive control had been experienced by 31% of females and 30% of males. With coercive control being experienced by such a large proportion of the population and the seriousness of its possible outcomes, much research has been conducted on its victims. Whether coercive control is gendered was, and still is, a source of debate among coercive control researchers (Johnson, 2006; Myhill, 2015; Myhill & Hohl, 2016; Straus, 2010). Other sociological correlates, including race, age, education, and sexual orientation have been examined as potential correlates of coercive control victimization (Dichter, Thomas, Crits-Christoph, Ogden, & Rhodes, 2018; Policastro & Finn, 2017; Stark & Hester, 2018). Nonetheless, past research has not focused on the role of personality traits in coercive control victimization. Personality traits are likely candidates as correlates of coercive control victimization because of their influences on behavior and decision-making. Also, personality traits are psychological features that are habitual and durable (Villanueva, 2010), and personality traits have been found to correlate with different victimization risk factors. Although personality traits are fixed, the behaviors that exemplify them can be modified through therapies such as cognitive behavioral therapy and conditioning.

Two personality traits that research has shown to be correlated with risky behaviors and decision making are aggression and impulsivity. Both aggression and impulsivity are important to understanding coercive control victimization for several reasons. The first is that both traits are

often correlated with criminal acts and associations with likeminded offenders (Huesmann, Eron, Lefkowitz, & Walder, 1984; Moffitt 1993; White et al., 1994). Also, since aggression and impulsiveness often lead to delinquent or dangerous acts, as some criminological theories propose, individuals with these traits are more likely than others to experience violent victimization (Hindelang, Gottfredson, & Garofalo, 1978; Schreck, 1999). Another supporting reason is that aggressive and impulsive individuals often make choices for personal gain, with a blatant disregard for others and for rules/laws; the lack of planning, sensation seeking, and preference for physical interactions all increase victimization risk (Schreck, 1999). These harmful types of interactions that lead to victimization could extend into the intimate lives of persons with aggressive or impulsive traits—to include experiencing coercive control tactics. Understanding the relationship between aggressive and impulsivity traits with coercive control victimization could help in the development of effective policies and preventative measures.

To develop interventions, the first step is to identify the individuals who have a greater propensity to suffer from coercive control and the risk factors for this victimization. Specific therapies have been developed for aggression, impulsivity, and the behaviors associated with the two. Therefore, understanding if each trait is correlated with coercive control victimization, should increase the ability to intervene and possibly prevent this form of abusive victimization. After all, as the murder of Hannah Clarke and her children illustrate, and as research has shown, the time to act is early in the coercive control sequence (Myhill, 2015; Stark, 2007). Not increasing the knowledge and resources of research and criminal justice could have lethal consequences. The purpose of this thesis is to contribute to understanding the prevalence of experiencing coercive control tactics and the psychological risk factors that possibly underpin its occurrence.

II. Literature Review

Coercive Control Typology

Coercive control is a form of intimate partner violence (IPV), which is described by the Centers for Disease Control (2019, February 26) as abuse between individuals who are/have been in an intimate relationship together. One in four women and one in seven men experience some form of intimate partner violence in their lifetime (CDC, 2019, February 26); and more than a tenth of annual homicides are committed by intimate partners (Catalano, Snyder, & Rand, 2009). There are four dimensions of intimate partner violence: physical abuse, sexual violence, intimate terrorism (physical or sexual threats), and psychological/emotional abuse (Lipsky & Caetano, 2009).

Coercive control tactics are subsumed under psychological abuse; but when they are part of an ongoing form of abuse, Stark (2007) described them as the framework that enables all other forms of abuse and have been figuratively compared to psychological kidnapping, hostage taking, and a liberty crime (Crossman & Hardesty, 2018; Stark, 2007). The tactics used in coercive controlling violence make escape from abuse extremely difficult for the victim. Coercive control abuse perpetrators use what Johnson (2008) termed "intimate terrorism" to maintain power over the victim. The abusers accomplish this through violence (or the believable threats of violence or other harm), coercive tactics such as threats and humiliation, and controlling techniques including surveillance and restricting finances (Johnson, 2008; Stark, 2007). Stark (2007) reported that the use of coercive control tactics was found in a little over eighty percent of the domestic violence cases that he studied. Intimate partner violence that does not involve coercive control abuse may be explained by the assertion of Johnson (2008) that all domestic violence falls within two categories: intimate terrorism and situational partner violence.

Coercive control tactics may be evident in both cases. The primary differences between these two classifications are the frequency and circumstances in which the violence occurs. Situational partner violence transpires in moments of conflict, where episodic disagreements intensify to the point of abuse to end quarrels; whereas coercive control abuse is an ongoing, persistent pattern of violence and psychological tactics used by one partner to gain dominance over the other (Johnson, 2008).

Non-Violent Coercive Control Tactics

Stark and Johnson described coercive control abuse as a combination of psychological and surveillance tactics coupled with violence used to maintain power over one's intimate partner. Coercive control may be used in conjunction with violence, which is used as reinforcements for coercive controlling threats (Johnson, 2008; Stark, 2007). Yet, just as in the Hannah Clarke incident, coercive control tactics alone, are sometimes the only forms of abuse perpetrated and may continue even after law enforcement intervention and/or the end of the marriage (Crossman, Hardesty, & Raffaelli, 2015). The psychological abuse that coercive controlling tactics produce allow the abuser to maintain dominance after separation without producing physical, prosecutable evidence, but could potentially be prosecuted as stalking or harassment with legal intervention. As a matter of note, Stark, with Marianne Hester, recognized the validity of non-violence in coercive control research and concluded that "coercive control is not a type of violence" (2018, p. 91). Instead, the purpose of coercive control used by perpetrators is the exploitation of the victim's vulnerabilities to obtain dominance. Coercive control abusers accomplish this by targeting "a victim's autonomy, equality, liberty, social supports and dignity in ways that compromise the capacity for independent, self-interested decision-making" (Stark,

2012, p. 4). In a review of coercive control research, Hamberger, Larsen, and Lehrner (2017) propose conditions that indicate the use of coercive controlling abuse. The first is that it is both controlling *and* coercive. Control, in this sense, is the act of constraining another's thoughts, behaviors, and emotions; and coercion is the act of compelling the victim to accept unwanted intrusions and burdens (Dutton & Goodman, 2005; Ehrensaft, Langhinrichsen-Rohling, Heyman, O'leary, 1999). Three further measures define this concept: the coercive control perpetrator possesses an intention to maintain control of the victim, the victim must interpret the control and coercion as undesirable, and there must be some form of credible threat (Ehrensaft et al., 1999). Feasibly, these defining characteristics could be situational or sporadic use of coercive control tactics or repetitive, purposeful use of these tactics that indicate coercive controlling abuse.

Scope of Non-Violent Coercive Control Tactics

The non-violent coercive control tactics employed by abusers differ in prevalence and frequency for a variety of reasons, such as perpetrator and victim characteristics, relationship dynamics, purpose, and the temporal implementation of the tactics (Hamberger et al., 2017; Stark, 2009; Stark & Hester, 2018). Despite these differences, the methods a coercive control perpetrator may use can be subsumed under psychological abuse and categorized. The first classification is intimidation (coercion) methods, which are used to shape the behavior of the coercive control victim. Non-violent intimidation tactics include threats, surveillance, and degradation. Threats are made regarding the well-being of the victim, the well-being of loved ones, or even a threat of self-harm committed by the perpetrator. Although threats are often supported by violent acts, just the mere belief of the victim that the threats are realistic are often enough to secure the perpetrator's desired effect. Surveillance, under which domestic stalking is

sometimes subsumed, involves the monitoring of a victim's activities. Surveillance can be extremely domineering, such as monitoring bathroom usage or food intake, or it may be more of a control maintenance act, such as reading victim emails, controlling phone calls, or having the victim check-in when outside of the home. Degradation is used to humiliate the victim and reduce their self-efficacy, will, and self-esteem. This shaming can involve name-calling, criticisms of the victim's appearance or ability, and/or requiring the victim to commit acts which are self-abhorrent.

The second category, non-violent controlling tactics, are used to remove a target's independence and means of support. These tactics consist of resource deprivation, behavior regulation, isolation, and exploitation. Resource deprivation involves the abuser limiting the victim's access to finances, assets, food, and other necessities of life. Behavior regulation relies on rules set by the abuser to create an atmosphere of the perpetrator always being present. Examples of behavior regulation include setting times for when the victim is allowed to conduct specific tasks, creating specific guidelines for chores or "duties", and designating locations that the victim is permitted/not allowed to go. Coercive control perpetrators use tactics such as not allowing their partner to work, preventing their partner from visiting friends and family, and denying means of communicating with others as methods to create isolation. While coercive control abusers limit and control much of the victim's life, the abuser is often exploiting those very same resources. If the victim is working, the perpetrator may claim the victim's paychecks to purchase goods for themselves. Or, assets owned by the victim, such as a car or electronics, are secured by the perpetrator for their own use.

Although researchers have begun to provide an understanding of the importance of coercive control and the dynamics between perpetrators and victims, coercive control research is

limited and relatively new to study. Therefore, it is necessary to explore a variety of coercive control tactics that have also been subsumed under other labels such as emotional or psychological abuse. It is important to note that many of these tactics do not require the perpetrator and victim to be in each other's presence. Technology, (e.g., social media, email, instant messaging, GPS tracking, key logging, online banking, etc.) allows for a coercive control perpetrator to maintain dominance and influence over their victims even while separated, physically and/or domestically. Research examining digital dating abuse (DDA) and digital coercive control (DCC), defined as the use of technology to intimidate, stalk, or monitor an intimate partner, has begun to illustrate how this form of abuse is conducted (Reed, Tolman, & Safyer, 2015; Woodlock, Mckenzie, Western, & Harris, 2019). Technology-facilitated abuse, used in DDA and in DCC, has begun to be recognized as a nonviolent form of IPV, is coercive and controlling, and is prevalent in abusive relationships (Reed et al., 2015; Reed, Tolman, & Ward, 2017; Woodlock et al., 2019). An example of DDA or DCC is creating a false social media account to be added to a target's friend list, with the purpose being to monitor their posts. Or a perpetrator may use email to send threats to a target in an attempt to coerce the victim into desired behaviors. Digital dating abuse and digital coercive control have been shown to be correlated with negative victimization outcomes such as poor relationship boundaries, increased victim fear, reduced independence and freedom, and reciprocated digital abuse (Harris & Woodlock, 2018; Reed et al., 2015; Reed et al., 2016; Reed, Tolman, Ward, & Safyer, 2017; Woodlock et al., 2019).

Extent of Coercive Control Tactics

The extent of coercive control is not clearly understood. Researchers, in their assessment of coercive control, indicate that it is often covert and concealed in manipulation, which makes instances of coercive control difficult to measure. At least in the United States, coercive control is typically not an abuse that is reported to police as a crime, which would mean that knowledge of coercive control is typically derived from after-incident reports and surveys (Johnson, 2008; Myhill, 2015; Stark, 2007; Straus, 2010). Currently, there are very few U.S. national surveys that specifically ask about coercive control experiences, although estimates of psychological and emotional intimate partner violence are more common. One survey, the National Intimate Partner and Sexual Violence Survey (NISVS) (Black et al., 2012), reveals the prevalence of intimate partner violence and experiencing coercive control tactics. The NISVS reports that one third of women and more than a quarter of men report physical violence perpetrated by an intimate partner in their lifetime. Sixteen percent of women and four percent of men experience stalking with a perceived credible threat of harm, with intimate partners being the leading type of perpetrator for both sexes. Sexual coercion is reported by one out of ten U.S. women and one in twenty-five U.S. men, in their lifetime. Specifically, the NISVS summary report (Black et al., 2012) reports that eleven percent of women reported being subjected to a coercive controlling tactic in the past twelve months and 41.1% experienced this during their lifetime. Fifteen percent of men reported twelve-month experiences and 42.5% experienced at least one incidence in their lifetime. In an analysis of the National Violence Against Women Survey (NVAWS), Johnson, Leone, and Xu (2014) found that 22 percent of women and five percent of men experienced coercive control perpetrated by their ex-spouses. MyHill (2015), using the CSEW, reported that

30 percent of abuse reported by females, and six percent by males, could be classified as coercive control.

There have been even fewer studies on the prevalence of digital coercive control. Woodlock, McKenzie, Western, and Harris (2019) reported that 98 percent of domestic violence practitioners reported having clients who experienced DCC. Twenty-eight percent of adolescents in a nationally representative study experienced some form of digital dating abuse (Hinduja & Patchin, 2020); and, in a survey of college students, Reed, Tolman, and Ward (2017) concluded that 74 percent of men and women experienced one or more DDA victimization in their lifetime, and 69 percent of students had been victimized via DDA within twelve months.

Consequences of Experiencing Coercive Control Tactics

Coercive control victimization research has indicated that coercive control significantly differs from other forms of abuse. Victims of coercive control and victims of intimate terrorism are physically harmed at higher frequencies and the abuse they suffer tends to be of a more severe nature than victims of situational couple violence (Dichter et al., 2018; Hardesty et al., 2015; Myhill, 2015; Nielsen, Hardesty, & Raffaelli, 2016). Victims of coercive control are more likely than non-victims to also experience physical abuse, sexual assault, and completed homicide and noncompleted domestic homicide attempts (Myhill & Hohl, 2016; Stark, 2007). Unfortunately, the abuse that coercive control victims endure often does not end at the dissolution of their relationship with their abuser. Instead, coercive control victims experience post-separation abuses—physical, sexual, coercive, and emotional, at a higher rate than victims of other forms of intimate partner violence (Dichter et al., 2018; Myhill, 2015; Ornstein &

Rickne, 2013). Being a victim of coercive control tactics is also correlated with being a perpetrator of intimate partner violence. (Robertson & Murachver, 2011).

Coercive control and intimate partner violence victimization have been linked to post-traumatic stress disorder, depression, anxiety, and substance abuse (Pico-Alfonzo, 2005; Stark, 2007). In addition, long-term physical complications, such as heart disease, high-blood pressure, and anorexia (Stark, 2007, 2009) have been found in victims of coercive control. Victims also have experienced continued feelings of being unsafe, even after the cessation of the abuse (Dichter & Gelles, 2012). These comorbidities illustrate the importance of understanding victim typology. Distinguishing those who are more or less likely to experience coercive control can help to determine preventative and treatment measures for those affected.

Victim Characteristics

Researchers have begun to investigate who is likely to experience coercive control. In doing so, one factor that has been studied is the sex of the abuser and victim. There is a debate as to the role of biological sex in coercive control victimization. The two perspectives that are concerned with this issue are gender symmetry, which reports finding a relatively equal amount of intimate partner violence and coercive control between men and women (Anderson, 2009; Straus, 2010, 2011), and feminist traditions, asserting that coercive control is perpetrated upon females by males, with very few exceptions (Johnson, 2008; Myhill, 2015; Stark, 2007). Results reported by investigations using these two perspectives may differ due to measurement error and sampling bias. Proponents of gender symmetry, according to critics, tend to use non-generalizable convenience samples and tend to examine incidences of perpetration (Myhill,

2015; Straus, 2011). Those who contest the gender symmetry view claim that gender symmetry is found in situational couple violence, not intimate terrorism.

Other sociological demographics have been found to be associated with the risk of coercive control experiences. Much of the research on intimate partner violence and coercive control victimization finds that it is most prevalent in young adulthood (18 to 24 years old) (Policastro & Finn, 2017; Rennison & Rand, 2003), and like most other forms of victimization, the risk of experiencing it lessens with age (Band-Winterstein & Eisikovits, 2008; Policastro & Finn, 2017). Aligning with the assertion that younger people are at greatest risk, Fass, Benson, and Leggett (2008) found that 83 percent of female college students and 86 percent of college males reported being victims of psychological violence. One of the few studies to address coercive control in same-sex relationships found that four percent of respondents experienced coercive controlling violence, and seven percent were victims of non-violent control tactics (Frankland & Brown, 2013). There has been very little research examining the correlation between socioeconomic status and coercive control. Nonetheless, in research on women's experiences of coercive control, Dichter et al. (2018) reported that women in their study who were victims of coercive control abuse tended to also experience poverty; but they were unable to determine the nature of the relationship between lower economic status and coercive control. Race has not been empirically linked to coercive control victimization.

Research on coercive control victimization risk factors has not examined much beyond demographic characteristics. Understanding more about the factors that contribute to this type of intimate partner victimization and the behaviors involved in coercive control interactions will be useful in understanding the nature of coercive control victimization. Stark (2007) reported that it is the coercive control perpetrator having facilitated abuse before that far outweighs any other

features in predicting future episodes. Other perpetrator risk factors are being abused or neglected as a child, being diagnosed with Post-Traumatic Stress Disorder, psychopathy, and substance abuse (Gilbar, Taft, & Dekel, 2020; Robertson, Walker, & Frick, 2020; Straus & Saito, 2016). It is possible that much of the risk of becoming a victim of coercive control resides in the choosing of a partner. Personal factors that may affect decision making—especially choices that involve risk, such as choosing a partner, may contribute to an increased likelihood of experiencing IPV. For example, the perpetration of violent acts as an adolescent has been found to be associated with domestic violence perpetration, victimization, and reciprocal abuse (Renner & Whitney, 2012). A meta-analytic study conducted by Yakubovich et al. (2018) indicated that intimate partner violence victimization was strongly correlated with unplanned pregnancy and the victim's parents having less than a high school education. Age and being married were negatively correlated with IPV; and other factors such as experiences of child abuse, antisocial behavior, unmarried cohabitation, lower completed education levels, belief in traditional gender roles, and a lack of social support increased the chances of suffering IPV, including coercive control victimization.

Other forms of abuse, closely associated with coercive control, have been found to have related risk factors that may be relevant. Digital dating abuse is often a reciprocal process and has been associated with attachment anxiety (Reed et al., 2016). Being a victim of psychological abuse has been found to be moderately correlated to intimate partner attachment, relational communication, and marital adjustment (Schumacher, Slep, & Heyman, 2001). Victims of psychological abuse were also found to have partners who had higher hostility scores, condoned aggressive attitudes, experienced more negative life events, struggled with employment, and reported more marital dissatisfaction, all of which were exacerbated by increased alcohol use

(Margolin, John, & Foo, 1998). Perhaps the literature is lacking in identifying individual characteristics that increase the risk of coercive control victimization because the victims often are not assessed until after experiencing abuse (Johnson, 2008; Stark 2007). Because these traits are typically identified post-abuse, it may be difficult to disentangle whether they were pre-existing or a result of abusive events. Outside of demographics, many of these risk factors are conditional or are evident for limited times. Instead, the study of characteristics, such as personality traits, that are enduring and durable, could reveal risk factors that most likely exist before the experience of coercive control victimization. Additionally, research on the role of personality traits in victimization is relatively recent, indicating a need for more investigation. Research examining the role of personality traits in coercive control victimization will help to identify risk that is not perpetrator based. As previous research has shown (Daigle, Harris, & Teasdale, 2020; Kulig, Cullen, Wilcox, & Chouhy, 2018; Schreck, Wright, & Miller, 2002), personality traits and factors have been shown to increase the risk of victimization in general.

Aggression

Aggression is a personality trait that potentially could be associated with becoming a victim. The American Psychological Association (2020) defines aggression as "behavior aimed at harming others physically or psychologically" and may be used to intentionally harm people or objects, may be used to gain or achieve goals, or may be used as a response to distress. Aggression is categorized into either premeditated (like coercive control) or impulsive aggression (Barratt, Stanford, Dowdy, Liebman, & Kent, 1999). Premeditated aggression can also be viewed as proactive aggression, where impulsive aggression is sometimes termed reactive (Card & Little, 2006). Proactive aggression is more centered around an individual's

personality due to its deliberate focus on harms as merely the vehicle to accomplish objectives; whereas reactive aggression is the harming of others to retaliate for perceived, real, or imagined offenses against the aggressive individual and may not be a consistent trait (Dodge, 1991). Also, according to Berkowitz (1989), aggression can be created, reactively, through the frustration of experiencing any negative affect. Negative affects can include a range of outcomes such as individuals not achieving a desired result or experiencing grief. Berkowitz argues that the aggressive reaction occurs in the moment and arises before reason and higher-level thinking is used to reassess the situation. Therefore, those who have trouble controlling impulses may express aggression as a rapid response. The behavioral tendencies of individuals who possess proactive and reactive aggression manifest in numerous features. The behaviors associated with aggressive personalities are long lasting in up to half of males and one-third of females, beginning in pre-adolescence and lasting at least into early adulthood (Huesmann et al., 1984; Piquero, Carriaga, Diamond, Kazemian, & Farrington, 2012). Aggressive persons have been shown to actively engage in sensation-seeking and risk-taking behaviors (Cui, Colasante, Malti, Ribeaud, & Eisner, 2015); and aggression is a diagnostic criterion of antisocial and borderline personality disorders.

Individuals with higher levels of aggression are also often criminal offenders. For aggressive individuals, the transition from adolescence into adulthood often signifies a conversion from juvenile delinquent behaviors (vandalism, gang membership, alcohol and drug experimentation, etc.) to serious antisocial criminal acts, including child abuse and intimate partner violence (Huesmann et al., 1984). Individuals with aggressive personalities have higher rates of homicide and self-harming/suicidal behaviors, with these often being co-occurring (Hillbrand, 2001). Aggression has also been tied to sexual assault (DeKeseredy, Schwartz, &

Tait, 1993; Smallbone & Milne, 2000; Woerner, Abbey, Pegram, & Helmers, 2018). Other criminal activity such as robbery (Bourgeois & Fisher, 2018), theft (Barker et al., 2007), participating in the illicit drug trade (Caulkins, Reuter, & Taylor, 2006) and even some white-collar crimes (Benson & Moore, 1992) have been found to be correlated with individual aggression levels. Other studies have linked criminal recidivism with aggression. In fact, Swogger, Walsh, Christie, Priddy, and Conner (2014) found that premeditated aggression was a predictor for violent recidivism.

Not only is aggressive personality related to offending, but past studies have also examined the longitudinal effects of aggression and found it predictive of being the victim of a violent crime, including domestic physical abuse (Frey & Strong, 2017; Huseman et al., 1984; Salmivalli & Helteenvuori, 2007). Aggressive personalities and victimization may be linked for three reasons. The first possible explanation is the victim-offender overlap. The explanation that criminal offending often leads to becoming a victim (and vice-versa) has been proposed by numerous researchers (Cohen, Kruegel, & Land, 1981; Hindelang, 1981; Hindelang et al., 1978). The basis of this explanation is that individuals who perpetrate crimes have also experienced criminal victimization. Lauritsen, Sampson, and Laub (1991) noted that being a victim or a perpetrator of a crime increases the risk of future criminal offending and criminal victimization, and according to Jensen and Brownfield (1986) criminal behavior is the stronger (more than non-delinquency) predictor of victimization. As aggression is linked to a propensity towards criminal behavior and violence, so too should it be connected to the possibility of criminal victimization. Logically, if having an aggressive personality type increases the likelihood of committing crime, and committing crime increases the chance of becoming a victim, then having an aggressive personality should also increase the probability of becoming a crime victim. Limited research

supports this assumption. The victim-offender overlap in aggressive individuals could also exist due to experienced victimization causing the development of aggressive tendencies (Aceves & Cookston, 2006; Barroso et al., 2008; Widom, Schuck, & White, 2006). And relevant to this study, the victim-offender overlap has been shown to exist within intimate partner violence (Muftić , Finn, & Marsh, 2012).

The second explanation for why individuals with the aggressive personalities may be victimized is criminal reciprocity. Although retaliatory victimization is an extension of the victim-offender overlap, there is a distinction between the two. Specifically, victimization that is reciprocated is a direct response to a prior offense committed by the target, and the victim-offender overlap does not require a prior offense between the victim and perpetrator for it to occur. Retaliatory violence for harms committed by a victim is commonly attributed to the growth and behavior of gangs (Decker, 1996), homicide (Kubrin & Weitzer, 2003), the drug market and robbery (Topalli, Wright, & Formango, 2002), and interpersonal disputes (Lam, Law, Chang, Zhang, & H. Wong, 2018), all of which have also been associated with aggression (Bourgeois & Fisher, 2018; Caulkins et al., 2006; Hillbrand, 2001; Vasquez, Lickel, & Hennigan, 2010).

More telling is that aggression and retaliatory victimization are correlated with intimate partner violence (Campbell, Glass, Sharps, Laughon, & Bloom, 2007; Huesmann et al., 1984; Whitaker, Haileyesus, Swahn, & Saltzman, 2010); and, almost half of all domestic violence is retaliatory in nature. (McQueen, 2011; Whitaker et al., 2010). Johnson (2008), describes a coercive controlling relationship, termed “violent resistance”, in which the abusive perpetrator is violent and controlling, and the victim responds with violence in return. Johnson attributes the retaliation to a number of different motives. These reasons may include retaliation as a means of

defense, to interrupt the abuse, to prevent future acts, to cause the abuser pain, to escape the relationship, or even to seriously harm or murder the abuser. Johnson only addresses violent reciprocation, but it would seem reasonable that the retaliation could be coercive and controlling in nature. Afterall, if the purpose of IPV retaliation is to change the nature of the abuse or the power differential, coercive controlling techniques would be a "safer" method than physical abuse; coercive control perpetration does not necessarily leave physical evidence that would result in the arrest of the abuser. Aggressive individuals' hostilities and maltreatments of others as a "means to an end" can create these same dangerous interactions, especially in personal relationships, that may easily go amiss and result in violent retaliation. Simply put, an aggressive individual may become a victim after committing an IPV offense. Studies have indicated that it is rare that those with aggressive traits have normal, healthy, personal relationships (Linder, Crick, & Collins, 2002).

Finally, the link between aggression and victimization may be explained by the theoretical explanations posed by Cohen and Felson (1979), Hindelang, Gottfredson, and Garafolo (1978) and Schreck (1999). Lifestyle-Routine Activities Theory (L-RAT) (Cohen & Felson, 1979; Hindelang et al., 1978) suggests that an individual's day to day behavior determines the probability that they will be victims of crime. These behaviors are determined by demographic characteristics, which shape role expectations, and structural constraints. Accordingly, the individual's behaviors, companions, and locations frequented promote or decrease the opportunities for crime and victimization. The more that criminal targets (persons and possessions) are available, the greater the target suitability (vulnerability), and the less they are protected (guardianship), the greater the risk for crime. Although L-RAT theory is often given as an explanation for the offender-victim overlap, it should be noted that L-RAT does not

propose that an individual needs to offend to become a victim. Instead, L-RAT suggests that the only requirement for possible criminal victimization is a suitable target and reduced protection in the presence of a motivated offender. For persons with aggressive traits, who are sensation-seeking and risk takers, their choices in routine activities will most likely be ones that place them in positions to be harmed.

Schreck (1999) expanded on Gottfredson and Hirschi's (1990) theory of self-control to explain criminal victimization. He argued that unlike research of the past, individual differences should be examined when assessing the probability of criminal victimization. Schreck explained how the six elements of self-control related to being a victim of a crime. Future orientation refers to impulsivity versus delayed gratification, with greater impulsivity leading to quick rewards and disregarded possible consequences (lack regard for their own well-being). Empathy described an individual's level of sensitivity in considering others; those who lack self-control also tend to act thoughtlessly towards others (lack regard for others' well-being). Tolerance for frustration is an indicator of an individual's ability to control their anger and impatience, with a lack of constraint indicating low self-control. Low self-control and victimization are also guided by diligence; those who do not take precautions and are not aware of dangers are likely to be victimized. Another element is that persons with low self-control prefer physical responses over thoughtful recourse, which could exacerbate situations with potential harm. Finally, avoidance is negatively correlated to self-control, which means that low self-control involves sensation-seeking behavior, placing a person in a position to be victimized due to location or activity. Research supports the predictive relationship between failures of self-control and aggression (Denson, Dewall, & Finkel, 2012; Dewall, Finkel, & Denson, 2011). Aggressive characteristics would lend themselves to low self-control (i.e., impulsiveness, lack of empathy, low frustration tolerance,

physicality, and sensation seeking). Schreck (1999) reported that his research indicated that low self-control increased the probability of individuals experiencing personal victimization to themselves or to their property, and the strength of the self-control/victimization relationship was not fully moderated by the individuals' criminal behavior. Therefore, aggression may be linked to victimization via low self-control.

Self-control, in both criminality and victimization (Gottfredson & Hirschi, 1990; Schreck, 1999), are *general* theories, and are not specific to any one type of deviant behavior. Although research has supported self-control theory in respect to being a victim of violent victimization (i.e., Piquero et al., 2005; Schreck, 2002; Stewart, Elifson, & Sterk, 2004; Turanovic, Reisig, & Pratt, 2014), there has been very little investigation of self-control theory in relation to intimate partner violent victimization (Pratt & Cullen, 2000; Pratt, Turanovic, Fox, & Wright, 2013). One of the few studies of self-control theory and IPV victimization was conducted by Kerley, Xu, and Sirisunyaluck (2008). Their research concluded that self-control was multidimensional and showed support for the elements of impulsivity, risk-taking, physicalness, and frustration tolerance as being predictive of IPV victimization. Each of these elements are characteristics of aggressive personalities.

Although research and theory indicate support for the correlation between aggression and criminal victimization, including intimate partner violence, the relationship between aggression and coercive control victimization has not been established. Determining if there is a correlation between aggression and coercive control victimization may reveal more about the individual factors that promote or reduce its likelihood. This lack of investigation creates a gap in understanding the types of persons who are more prone to experiencing coercive control victimization and can provide possible insights into prevention and treatment.

The preceding explanations may also be used for coercive control victimization. First, the victim-offender overlap might explain coercive control victimization in that abuse is often mutual in relationships (Johnson, 2008). Reciprocal victimization transpires as a result of the target committing acts that result in an intimate partner responding with coercive control tactics. Lifestyle-Routine Activities theory could lead to coercive control victimization by the victim engaging with a motivated offender while also possessing the characteristics of a suitable target and lacking capable guardianship. Finally, the behavioral elements of an individual's low self-control increase their appeal as a target and reduce their security from coercive control victimization.

Impulsivity

Like aggression, impulsivity is another personality trait that may be associated with victimization. Impulsivity has been defined by various means. A general, simple definition for impulsivity is a "personality pattern marked by a tendency to act hastily and without adequate reflection on the possible consequences" (APA, 2020). However, for the purpose of this research, understanding the dimensions of an assessment tool used to measure levels of impulsivity can help to further define impulsivity and to delineate it from the aggressive trait. The Impulsiveness Scale (BIS) divides characteristics of impulsivity into three major categories with each containing two first order subscales (Stanford et al., 2009). The first category is attentional impulsivity, defined as the incapability of concentrating or focusing. The subcategories are attention (focusing on tasks) and cognitive instability (intrusive thinking). The second category is motor impulsivity or acting without thinking, which is further broken down into acting without hesitation and perseverance (secure lifestyle). And the last category is non-planning

impulsivity—lacking foresight into one's actions and the possible consequences, with the two sub-scales of cognitive complexity and self-control (Reise, Moore, Sabb, Brown, & London, 2013). The three categories and sub-scales seem to also incorporate the dimensions of the personality model developed by Whiteside and Lynam (2001). Their four-facet model of impulsivity is characterized by an individual's feelings of urgency even in risky situations, lack of planning/disregard of consequences, inability to focus on the completion of tasks, and sensation seeking. Dickman (1990) described a two-type model of impulsivity, consisting of functional and dysfunctional impulsivity. Functional impulsivity occurs when an individual reacts rapidly to situations that result in favorable outcomes. Dysfunctional impulsivity describes an individual's response, to stimuli or environments, that leads to negative consequences, which Dickman argues is due to a misinterpretation or processing failure of situational information. Dysfunctional impulsive trait features have been associated with antisocial behavior, and those with impulsive personalities tend to continue to act in antisocial ways throughout their lifetimes leading to negative long-term outcomes and decreased quality of life (Chamberlain & Grant, 2019; Moffitt, 1993). The sex of the individual does not appear to moderate the effect of impulsivity and the commission of antisocial acts; instead, impulsivity is correlated with antisocial behavior equally in males and females (Reyes, Crocker, Weinstein, Roy, & Caron, 2013). Also, offenders who have impulsive personalities tend to have an early onset of criminal activity (Carroll et al., 2006).

The personality trait of impulsivity has also been shown to be closely linked with different forms of aggression (Evenden, 1999; Brennan & Baskin-Sommers, 2019). As a matter of point, and as noted in the preceding section, the two forms of aggression are premeditated and *impulsive* aggression. However, impulsive and aggressive personalities are distinctly different,

even if some of the behaviors and processes associated with each overlap. Each of the impulsivity facets speak to an interruption or deficiency in thought processes. This may be evidenced by other impulsivity assessments such as the Behavioral Inhibition System, which measures forethought, anxiety, and worry; low scores on these three characteristics indicating higher motor impulsivity and non-planning impulsivity.[1] Unlike aggression, impulsive thought processes may not have a goal or specific reward and they lack premeditation. Also, people with aggressive personalities seek to attack or harm others or things to achieve a goal or reward; and although impulsive actions may cause damage, it is more a consequence of impulsive action rather than the purpose for the action Some researchers have examined the relationship between the two personality types to disentangle how impulsivity and aggression interact in the production of behavior. In a study of college students, researchers determined that impulsivity is correlated with anger, physical aggression, and verbal aggression, which they attributed to the instrumental and expressive forms of aggression (Vigil-Colet, Morales-Vives, & Tous, 2008). However, a meta-analysis conducted by Bresin (2019) found that all four facets of impulsivity were correlated with all forms of aggression–physical harm, sexual harm, verbal harm, relational harm, premeditated, and reactive. Because there is some overlap between aggression and impulsivity, and because both are correlated with criminal behavior, it is likely that impulsive and aggressive personalities could both be risk factors for victimization.

Therefore, explanations for why individuals with impulsive personalities might suffer criminal victimization include the victim-offender overlap, reciprocal victimization, and routine activities/self-control theories. Aligning with research conclusions drawn by Lauritsen et al.

[1] The Behavioral Inhibition System was used to measure impulsivity due to the Barrett Impulsiveness Scale having reliability analysis and factor analysis that suggested multiple items to be used separately, rather than a single factor.

(1991) and Jensen and Brownfield (1986), who report that criminal perpetration increases the risk of and predicts future criminal victimization, individuals with impulsive personalities should be at risk for becoming the victim of a crime. This argument follows the same logic noted with aggressive personalities—that impulsivity is correlated with criminal delinquency (Jones & Lynam, 2008; White et al., 1994), criminal delinquency/behavior is correlated with experiencing criminal victimization, which means impulsivity is also related to criminal perpetration and victimization.

Impulsivity, by definition, involves behavior or actions in which the individual does not consider the possible consequences, which in certain circumstances, might cause reciprocal victimization. It is likely that an impulsive individual will not consider how their behavior may harm or anger those affected by their actions, especially for antisocial acts. Along with feelings of urgency in risky situations and sensation-seeking, disregard of after-effects could lead impulsive individuals into physical or verbal altercations, wronging dangerous individuals, and not judging intimate partners as ones who would reciprocate experienced abuse.

The final explanations for how impulsivity may be connected to criminal victimization are theoretical. Routine activities theory (Cohen & Felson, 1979) proposes that one factor that determines the likelihood of being a victim of crime is capable guardianship. The poor planning and lack of foresight of impulsive individuals likely reduces their capability of ensuring that measures are in place that benefit their safety and security. Schreck's self-control theory (1999) may explain why individuals with impulsive personalities are victims of crime. Impulsivity is counter to multiple elements of self-control. Impulsivity does not allow for delayed gratification (future orientation), reduces the use of protective measures (diligence), will most likely not produce contemplative responses (physical versus mental), and increases the prospect of

sensation-seeking (avoidance). Again, in a study conducted by Kerley et al. (2008), research concluded that components self-control, including impulsivity, are predictive of becoming a victim of intimate partner violence (Caetano, Vaeth, & Ramisetty-Mikler, 2008; Connolly, Cooke, Beaver, & Brown, 2020). From the perspective of Schreck's self-control theory, persons with impulsive personalities should be vulnerable to becoming victims of crime.

The preceding theories are supported by the conduct of impulsive individuals. The antisocial behavior that results from impulsivity is often criminal in nature (Moffitt 1993; White et al., 1994). Much like aggression, impulsivity has been found to be a risk factor for homicide and suicide (Hardwick & Rowton-Lee, 1996; Horesh et al., 1997). Impulsivity is also connected to sexual assault (Holcomb, Mahoney, & Lawyer, 2019) and physical assault (Fehon, Grilo, & Lipschitz, 2005), it increases the likelihood of a person using weapons during assaults (Serin, 1991), and is significantly correlated to male upon female intimate partner violence (Mager, Bresin, & Verona, 2014). Individuals with impulsive personalities have also been shown to commit non-violent crimes like theft and vandalism (Blum, Odlaug, Redden, & Grant, 2018; Carrasco, Barker, Tremblay, & Vitaro, 2006). Impulsivity is also linked to recidivism; Ros, Zabala, Romero-Ayuso, Jimeno, and Ricarte (2020) found that Motor Impulsivity, described as action without reservation to authority, was found to be correlated to higher risk of criminal recidivism than non- and other-impulsive individuals. Because victims and offenders share similar characteristics, impulsivity may also be correlated with victimization.

Again, similar to those with aggressive personalities, persons with impulsive personalities are also susceptible to violent criminal victimization, including intimate partner violence (Caetano et al., 2008; Connolly et al., 2020). Negative comorbities include those in the mental health spectrum, such as antisocial personality disorder, borderline personality disorder,

substance use disorders, kleptomania, pyromania, and paraphilic disorders (American Psychological Association, 2013). Also, facets of impulsivity have been found to be positively correlated to some psychopathic features (Morgan, Gray, & Snowden, 2011; Snowden & Gray, 2011). All of these psychiatric disorders are correlated with the commission of crimes and delinquent behaviors. Impulsivity is an element of low self-control, and is the element which Kerley et al. (2008, p. 526) reported as "the most robust self-control variable in predicting both psychological and physical intimate partner victimization." Currently, no research has sought to examine if impulsivity has any association with coercive control victimization. To further understand individual risk factors to being a victim of coercive control is a valid reason to measure it across impulsivity.

III. Current Study

The current study investigates the correlation between aggressive personalities and impulsive personalities with coercive control victimization. The relationship between other forms of victimization and perpetration will also be explored. From the review of pertinent research, and the explanations cited regarding the two personality traits and victimization, two hypotheses were developed for testing:

Hypothesis 1: Aggression levels will be positively correlated with the number of coercive control victimization incidents experienced within one year.

Hypothesis 2: Impulsivity levels will be positively correlated with the number of coercive control victimization incidents experienced within one year.

IV. Methods

Data and Sample

Data for this thesis were taken from the Biopsychological Correlates of College Victimization Study, which is an online survey of college students at a metropolitan university located in the Southeastern United States. Students were sent an email requesting their participation in the study by completing the online survey. Approximately 35,000 students were sent an invitation requesting anonymous, voluntary participation in the study. The initial email was sent along with follow-up emails 2, 4, 6, and 10 business days after the initial email. Students completed the survey between February 2018 to April 2018. This cross-sectional survey includes measures of sample demographics, multiple elements of aggression and impulsivity personality traits, and different variations of abuse perpetration and victimization, including coercive control.

Initially, 1,534 students opened the online survey. However, 323 students did not progress past the online consent, which resulted in a sample of 1,211 participants. Seventy-seven percent of the participants were female. The average age of participants was 24 years old. The racial make-up of the sample was 41% White, 34% Black, 12% Asian, 6% Other, and 7% were Multiracial; the actual university demographics measured as 60% female, 37% White/Hispanic, 38% Black, 13% Asian, 6% Multiracial, 1% Other. More than a third of the participants received free school lunches before attending college, which is less than the reported 56 percent of students that received the Pell Grant for 2018 (University System of Georgia, 2019); although, historically, 36 percent of incoming Freshmen have accessed the Pell Grant (Georgia State University, 2015). The education levels of the sample were 16% Freshmen, 15% Sophomore, 19% Junior, 26% Senior, 16% Masters/JD, and 9% PhD.

Measures

Dependent Variable

Coercive control victimization incidents experienced in a 12-month period were measured with a thirteen-item list. Respondents were asked, "*How often during the previous 12 months has someone you dated (i.e., spent time with, "hooked up" with, or gone out with) or in a romantic relationship with done the following?"* Each item that followed was a behaviorally specific description of a coercive control tactic. Some examples of these tactics were "*Monitored your telephone calls or e-mail contact*", "*Prevented you from seeing your friends*", "*Threatened to hurt themselves or commit suicide because they were upset*" and "*Refused to wear a condom during sex*". Three of the thirteen statements were determined to possibly be unobservable by the respondent. "*Read your text messages without your knowledge*," "*Read your email without your knowledge*," and "*Felt suspicious and jealous of you*," are statements that indicate the participant having no direct knowledge of their occurrence. It appears as if the perpetrator statements were created first and then just slightly reworded to create a victimization perspective, as a perpetrator would have full knowledge of the answers to these three. It is not impossible that the victim know the answer to these three, through evidence left behind, the perpetrator telling the victim, or by connecting them to the observable tactics. Also, there is the possibility that the participant was able to intuit their happening based upon other incidents. But it should also be noted that there is the possibility that participants' responses to these statements were guesses or made purely on suspicion.

Accordingly, a measure containing only the 10 observable statements was created; for further analysis, the full thirteen items were included in the full model in order to maintain the integrity of the coercive control victimization measure. (For all questions see *Appendix A*).

Respondents were asked to denote whether they had experienced the behavior 0, 1, 2 or more times within the past 12 months, or N/A not in a relationship during the previous 12 months. Those who indicated that they were not in a relationship during the previous 12 months were excluded from the final sample. Coercive control victimization was measured by making the variable dichotomized as victimized (1) or not victimized (0).

Independent Variables

Aggression. Aggressive trait scores were assessed using the self-report *Buss-Perry Aggression Questionnaire*, which is recommended for use in the general population, has high replicability, and has shown to be a valid measure of aggression for males and females (Gerevich, Bácskai, & Czobor, 2007). The Buss-Perry measures levels of physical aggression, verbal aggression, anger, and hostility. The assessment consists of twelve statements that each relate to one of the four dimensions, with a Likert scale answer set that ranges from extremely uncharacteristic of me (1) to extremely characteristic of me (5). Respondents were asked to rate items such as "*I have trouble keeping my temper*" (Anger) and "*Given enough provocation, I may hit someone*" (Physical Aggression). (For all questions see *Appendix A*). The aggression variable was measured by adding the values of the responses to create a total aggression score, which is supported by research (Bernstein & Gesn, 1997; Buss & Perry, 1992; Harris, 1997). Cronbach's alpha for the total aggression score was 0.84.

Impulsivity. To measure impulsivity, the Behavioral Inhibition System portion of the BAS/BIS instrument in the survey was used.[2] Although not technically an impulsivity

[2] The Barrett Impulsiveness Scale was not used because reliability analysis and factor analysis suggested multiple items to be used separately, rather than a single factor.

assessment, the Behavioral Inhibition System measures the amount of stimuli required to induce anxiety into individuals. The scale ranges from highly fearful individuals up to those who are sensation-seeking, risk takers, those who do not possess fear as a consideration (MacAndrew & Steele, 1991) (much like those with high impulsivity). The Behavioral

Inhibition System used in the current study is a four-item statement survey, in which participants answer via a Likert-scale indicating their level of agreement with each statement. The responses were coded so that a higher score indicated lower worry/anxiety/risk-avoidance. Participants report the frequency of experiencing each statement, from 1 (Very True) to 4 (Very False). Examples of the survey statements are "*I worry about making mistakes*." And "*If I think something unpleasant is going to happen I usually get pretty worried*." (For all questions see *Appendix A*). Although these four statements do not cover all of the subscales of the impulsive trait, it appears appropriate to operationalize them to cover the impulsive subcategories of acting without thinking and non-planning. The impulsivity variable was measured as a single, summed item after reliability and factor analysis determined it appropriate ($\alpha = 0.78$).

Violence Covariates

To account for other factors that may be related to both coercive control aggression and impulsivity, a set of covariates was also included. The variables coercive control perpetration, IPV perpetration, IPV victimization, sexual victimization, and antisocial behavior have been shown in past research to be correlated with coercive control victimization, aggressive personalities, and/or impulsive personalities. Including these covariates is in line with theories that explain victimization. For example, the victim-offender overlap and reciprocal victimization suggests that offending is linked to victimization. In addition, according to lifestyle-routine

activities theory, engaging in offending is risky behavior and will elevate chances of victimization by increasing target suitability. Further, research shows that victimization is linked to engagement in risky behavior (Combs-Lane & Smith, 2002; Turchik & Hassja, 2014), which may be connected to low self-control and impulsivity. Thus, including covariates that capture a range of perpetration and victimization are included.

Coercive Control Perpetration. The number of coercive control victimization incidents committed in a 12-month period was obtained through a thirteen-item list. Respondents were then asked, "*How often during the previous 12 months have <u>you done</u> to someone you dated (i.e., spent time with, "hooked up" with, or gone out with) or in a romantic relationship with the following??*" Each item is a behaviorally specific description of a coercive control tactic. Some examples of these tactics are "*Monitored their time and whereabouts*", "*Demanded access to their cell phone*", "*Threatened to hurt yourself or commit suicide because you were upset*" and "*Destroyed something that was important to them*". (For all questions see *Appendix A*). Respondents were asked to denote whether they had perpetrated the behavior 0, 1, 2 or more times within the past 12 months, or N/A not in a relationship during the previous 12 months. Those who indicated that they were not in a relationship during the previous 12 months were excluded from the final sample. Coercive control perpetration was measured by making the variable dichotomized as perpetrated (1) or not perpetrated (0).

Intimate Partner Violence Perpetration and Victimization. Intimate partner violence perpetration and victimization was measured with a sixteen-item inventory (taken from the Conflict Tactic Scale Revised). Eight of the statements (even numbered items) referred to victimization and eight dealt with perpetration (odd number items). The conflict tactic scale measures four dimensions of behaviors: psychological aggression, sexual coercion, minor

physical abuse, and severe behavior; however, for the purpose of this study, only the dimensions of minor physical abuse and severe behavior was measured. Respondents were asked to denote whether they had perpetrated or experienced the behavior during the past 12 months never (0), once (1), twice or more (2), or not in the past year, but it has happened before (9), which was coded as (0) for the purposes of this study. Conflict tactics were separated to represent perpetration or victimization and were be measured by making the variable dichotomized as perpetrated (1) or not perpetrated (0) and victimized (1) or not victimized (0).

Sexual Victimization. A measure of sexual victimization was created by using questions about participants experiencing sexual penetration without consent, attempted sexual penetration without consent, sexual touching without consent, or sex without consent while drinking alcohol in the prior twelve months. Not experiencing past sexual victimization was coded as 0 and having experienced past sexual victimization was coded 1.

Antisocial Behavior. To measure antisocial behavior, ten items reflecting engagement in personal and property crimes were used. Antisocial behavior was measured by using a dichotomous item reflecting whether (coded as 1) or not (coded as 0) a person engaged in antisocial behavior and is summed score of the ten items.

Victim Characteristics Covariates

In addition to perpetration and victimization covariates, other victim characteristics are also included in the analysis. Coercive control victims are more frequently female and coercive control has been demonstrated in heterosexual relationships (Johnson, 2008; Myhill, 2015; Stark, 2007). Both of these factors may be connected to target suitability, a key concept of lifestyle-routine activities theory. Intimate partner violence and coercive control experiences have also

been correlated with cohabitation, dating, and separation (Johnson, 2008; Stark, 2007, Truman & Morgan, 2014; etc.). It may be that those who are not married to their intimate partner face heightened risk because of being suitable targets and lacking capable guardianship. Other risk factors such as alcohol abuse and substance use have been correlated with experiencing intimate partner violence (Devries et al., 2013; Kraanen, Vedel, Scholing, & Emmelkamp, 2014).

Gender. A measurement of gender was obtained by coding females as 0, and males were coded as 1.

Sexual orientation. Sexual orientation was categorized as heterosexual coded as 0 and homosexual/bisexual, queer/other coded as 1.

Relationship Status. Relationship status was categorized as single/divorced (referent category), married/domestic partnership, cohabitating, in a relationship-not living with partner, or dating-not in a relationship.

Alcohol Use. A measurement of alcohol use was included. Daily alcohol use was categorized as less than 1 drink a day (used as referent), 1or 2 drinks a day, 3 or 4 drinks a day, 5 or more drinks in a day.

Substance Use. Substance abuse was measured with two items. The first indicated if a person used marijuana within the past year (coded as 1 if yes; coded as 0 if no). The second item reflected whether (coded as 1) or not (coded as 0) a person used any of 18 other illicit substances within the past year.

Demographic Characteristics. Age was measured in years. Students identified as being White (referent category), Black, Asian, and Multiracial/Other. Current education level was categorized as Freshman (referent category), Sophomore, Junior, Senior, or graduate student (which reflects being a Master's student, a Ph.D. student, or enrolled in a professional degree

such as J.D). Socioeconomic status was determined by the student receiving free school lunches before entering college, with 0 for no and 1 for yes.

V. Analysis Plan

Analyses were conducted in two stages. First, bivariate analysis was performed to determine the relationship between coercive control victimization, aggressive personality traits, and impulsive personality traits. Second, multivariate logistic regression models were used to assess the relationship between coercive control victimization, aggressive personality traits, impulsivity traits while accounting for covariates and control variables. To further explore these relationships, models were created that included/excluded violence and perpetration measures and included/excluded non-observable coercive control victimization measures.

VI. Results

Descriptive statistics for this study are displayed on *Table 1*. Almost 45 percent of participants reported experiencing some form of coercive control victimization. The average aggression and impulsivity scores were 26.21 (SD = 8.59) and 6.65 (SD = 2.38), respectively. Half of all participants admitted to perpetrating at least one of the coercive control tactics listed in the survey. Ten percent of respondents reported being a victim of domestic violence, whereas 52 percent of the respondents indicated that they had perpetrated domestic violence on a partner within the past year. A little over 26 percent of students reported being a victim of sexual assault in the past year. Antisocial behavior scores revealed that 17 percent of respondents had committed a personal or property crime within the past twelve months. Substance abuse measures were also examined. When asked to describe the number of drinks consumed whenever drinking, 12 percent of participants responded they typically drank 5 or more. Forty-one percent of respondents claimed using marijuana in the past year, and 18 percent reported using other forms of illicit substances in the past year.

Bivariate analyses (chi-square or t-test for independent samples) examining coercive control victimization and all variables are displayed in *Table 2*. The mean difference in aggression for those who experienced coercive control victimization and those who have not was statistically significant. Respondents who reported coercive control victimization had a higher mean aggression score than nonvictims. Almost all of the violence and perpetration measures were significantly related to coercive control victimization. A greater percentage of coercive control victims were also coercive control perpetrators (34.51%) than those who had not experienced coercive control victimization (15.13%). A greater percentage of respondents who reported experiencing coercive control victimization also experienced physical abuse (8.20%) as

Table 1 *Descriptive Statistics of Total Sample*

Descriptive Statistics of Total Sample	
	Total Sample (n=707)
	% (N)
Coercive Control Victimization	
No	55.02% (389)
Yes	44.98% (318)
Aggression Score[1]	26.21 (8.59)
Impulsivity Score[1]	6.65 (2.38)
Coercive Control Perpetration	
No	50.35% (356)
Yes	49.65% (351)
Domestic Violence Victimization	
No	89.96% (636)
Yes	10.04% (71)
Domestic Violence Perpetration	
No	48.09% (340)
Yes	51.91% (367)
Sexual Victimization	
No	73.55% (520)
Yes	26.45% (187)
Antisocial Behavior	
No	83.45% (590)
Yes	16.55% (117)
Gender	
Female	79.21% (560)
Male	20.79% (147)
Sexual Orientation	
Heterosexual	76.52% (541)
Homosexual/Other	23.48% (166)
Relationship Status	
Single/Divorced	36.07% (255)
Married	12.02% (85)
Cohabitating	14.14% (100)
Not Living Together/Dating/Other	37.77% (267)
Alcohol Amount	
Never	14.00% (99)
1 to 2 Drinks	46.68% (330)
3 to 4 Drinks	27.16% (192)
5 or More Drinks	12.16% (86)
Marijuana Use	
No	58.84% (416)
Yes	41.16% (291)
Other Drug Use	
No	82.04% (580)
Yes	17.96% (127)
Age[1]	24.76 (7.94)

Race	
White	46.96% (332)
Black	30.98% (219)
Asian/Pacific Islander	8.77% (62)
Multiracial/Other	13.30% (94)
Education Level	
Freshmen	13.86% (98)
Sophomore	13.01% (92)
Junior	18.67% (132)
Senior	28.57% (202)
Graduate Degree/J.D./PhD	25.88% (183)
Free Lunch	
No	66.48% (470)
Yes	33.52% (237)

[1]Mean and Standard Deviation given

compared to those who reported not experiencing coercive control (1.84%). A greater percentage of coercive control victims (29.84%) than non-victims (22.07%) perpetrated domestic abuse in the past twelve months. A greater percentage of those who experienced coercive control victimization experienced sexual victimization (17.26%) as compared to those who did not experience coercive control victimization (9.19%). A greater percentage of victims of coercive control (10.47%) compared to non-victims (6.08%) reported engaging in antisocial behaviors. A higher percentage of coercive control victims (22.07%) than non-victims (19.09%) reported using marijuana. A higher percentage of coercive control victims (10.47%) reported other drug use than non-victims (7.50%). All of the demographic measures, except gender, were significantly associated with coercive control victimization. Almost one-fifth of coercive control victims reporting not living with their partner, dating, or some other relationship compared to 17.96% of those not experiencing coercive control victimization. The average age of those who had experienced coercive control in the past twelve months was significantly lower (23.37) than those who had not experienced coercive control (25.89). A greater percentage of Whites

Table 2 *Bivariate Analysis of Coercive Victimization and Independent Variables*

Bivariate Analysis of Coercive Control Victimization and Independent Variables			
	No Coercive Control Victimization (n=389)	Yes Coercive Control Victimization (n=318)	Test Statistic and (Significance)
Aggression Score[1]	25.11 (8.57)	27.55 (8.43)	-3.79 (<.001)
Impulsivity Score[1]	6.63 (2.44)	6.67 (2.33)	0.18 (0.86)
Coercive Control Perpetration			169.58 (<.001)
No	39.89% (282)	10.47% (74)	
Yes	15.13% (107)	34.51% (244)	
Domestic Violence Victimization			42.98 (<.001)
No	53.18% (376)	36.78% (260)	
Yes	1.84% (13)	8.20% (58)	
Domestic Violence Perpetration			48.29 (<.001)
No	32.96% (233)	15.13% (107)	
Yes	22.07% (156)	29.84% (211)	
Sexual Victimization			42.18 (<.001)
No	45.83% (324)	27.72% (196)	
Yes	9.19% (65)	17.26% (122)	
Antisocial Behavior			18.91 (<.001)
No	48.94% (346)	34.51% (244)	
Yes	6.08% (43)	10.47% (74)	
Gender			0.83 (0.36)
Female	44.27% (313)	34.94% (247)	
Male	10.75% (76)	10.04% (71)	
Sexual Orientation			0.43 (0.51)
Heterosexual	41.58% (294)	34.94% (247)	
Homosexual/Other	13.44% (95)	10.04% (71)	
Relationship Status			14.57 (.002)
Single/Divorced	19.94% (141)	16.12% (114)	
Married	8.20% (58)	3.82% (27)	
Cohabitating	8.91% (63)	5.23% (37)	
Not Living Together/Dating/Other	17.96% (127)	19.80% (140)	
Alcohol Amount			3.75 (0.29)
Never	6.93% (49)	7.07% (50)	
1 to 2 Drinks	27.30% (193)	19.38% (137)	
3 to 4 Drinks	14.71% (104)	12.45% (88)	
5 or More Drinks	6.08% (43)	6.08% (43)	
Marijuana Use			14.88 (<.001)
No	35.93% (254)	22.91% (162)	
Yes	19.09% (135)	22.07% (156)	
Other Drug Use			11.05 (.001)
No	47.52% (336)	34.51% (244)	
Yes	7.50% (53)	10.47% (74)	
Age[1]	25.89 (9.08)	23.37 (6.00)	4.25 (<.001)

Race			8.87 (0.03)
White	28.57% (202)	18.39% (130)	
Black	15.70% (111)	15.28% (108)	
Asian/Pacific Islander	4.10% (29)	4.67% (33)	
Multiracial/Other	6.65% (47)	6.65% (47)	
Education Level			16.41 (.003)
Freshmen	7.21% (51)	6.65% (47)	
Sophomore	6.36% (45)	6.65% (47)	
Junior	9.34% (66)	9.34% (66)	
Senior	14.57% (103)	14.00% (99)	
Graduate Degree/J.D./PhD	17.54% (124)	8.35% (59)	
Free Lunch			4.61 (0.03)
No	38.47% (272)	28.01% (198)	
Yes	16.55% (117)	16.97% (120)	

[1]Mean and Standard Deviation Given

(18.39%) reported coercive control victimization than any other race; however, a greater percentage of White respondents indicated not being a victim of coercive control (28.57) compared to those who were victimized. The highest percentage of respondents who experienced coercive control in the last twelve months were Seniors (14.00%). A smaller percentage of coercive control victims were enrolled in Graduate Degree or Professional degree programs (8.35%) compared with those not experiencing coercive control victimization (17.54%). A smaller percentage of coercive control victims did not receive free lunch (28.01%) as compared to those who did not experience coercive control victimization (38.47%).

Multivariate logistic regression was used to analyze the factors that are related to experiencing coercive control victimization. The first model, as shown in *Table 3*, examines coercive control victimization and includes aggression and impulsivity as well as the other independent variables, but it does not include coercive control perpetration, domestic violence

perpetration or victimization, and sexual victimization.[3] As shown, aggression scores were significantly related to coercive control victimization. For every one-point increase on an individual's aggression score, there is a two percent increase in the odds of the individual experiencing coercive control victimization. Similar to aggression, antisocial behavior also increases the odds of coercive control victimization. No other variable was significantly related to coercive control victimization other than age. As the age of the respondents increased the odds of experiencing coercive controlling tactics slightly decreased.

Table 3 *Logistic Regression Examining Coercive Control Victimization (observable), Excluding Violence*

Logistic Regression Examining Coercive Control Victimization (Observable), Excluding Violence	
Variable	Odds Ratio (CI)
Aggression Score	1.02* (1.00-1.04)
Impulsivity Score	1.01 (0.95-1.09)
Antisocial Behavior	1.60* (1.02-2.52)
Gender	1.22 (0.82-1.81)
Sexual Orientation	0.85 (0.58-1.24)
Relationship Status	
Married	1.00 (0.54-1.84)
Cohabitating	0.93 (0.55-1.55)
Not Living Together/Dating/Other	1.41 (0.98-2.04)
Alcohol Amount	
1 to 2 Drinks	0.77 (0.47-1.25)
3 to 4 Drinks	0.70 (0.41-1.22)
5 or More Drinks	0.71 (0.37-1.38)
Marijuana Use	1.43 (0.98-2.07)
Other Drug Use	1.37 (0.85-2.21)
Age	0.97* (0.94-1.00)
Race	
Black	1.44 (0.95-2.16)
Asian/Pacific Islander	1.58 (0.89-2.79)
Multiracial/Other	1.43 (0.87-2.33)
Education Level	
Sophomore	1.03 (0.57-1.85)
Junior	1.24 (0.72-2.15)

[3] These variables were excluded initially to explore the relationship with key IVs and controls only.

Senior	1.42 (0.83-2.44)
Graduate Degree/J. D./PhD	1.00 (0.54-1.84)
Free Lunch	1.00 (0.54-1.84)

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

The second model results shown in *Table 4*, displays the findings of the same multivariate logistic regression examining coercive control victimization, but it also includes violent victimization and perpetration variables. Although neither aggression nor impulsivity are significant, individuals who perpetrate coercive control have almost nine times the odds of experiencing coercive control victimization than non-perpetrators. Being a victim of domestic violence or sexual assault increased the odds of being a coercive control victim by almost three times. Males' odds of experiencing coercive controlling tactics were twice as much than females. Compared to being single or divorced, participants who were married had 25 percent lower odds of experiencing coercive control victimization, and cohabitating decreased the odds by 59 percent. Asian/Pacific Islanders' odds of experiencing coercive control victimization were twice that of Whites.

Table 4 *Logistic Regression Examining Coercive Control Victimization (Observable)*

Logistic Regression Examining Coercive Control Victimization (Observable)	
Variable	Odds Ratio (CI)
Aggression Score	1.00 (0.98-1.02)
Impulsivity Score	1.07 (0.98-1.16)
Coercive Control Perpetration	8.66*** (5.67-13.22)
Domestic Violence Victimization	2.68** (1.29-5.59)
Domestic Violence Perpetration	1.52 (1.00-2.30)
Sexual Victimization	2.53*** (1.61-3.96)
Antisocial Behavior	0.97 (0.56-1.68)
Gender	2.17** (1.33-3.54)
Sexual Orientation	0.91 (0.58-1.43)
Relationship Status	
Married	0.76* (0.36-1.62)
Cohabitating	0.41** (0.22-0.78)

Not Living Together/Dating/Other	0.89 (0.56-1.42)
Alcohol Amount	
1 to 2 Drinks	0.66 (0.37-1.19)
3 to 4 Drinks	0.60 (0.31-1.15)
5 or More Drinks	0.60 (0.27-1.31)
Marijuana Use	1.22 (0.79-1.90)
Other Drug Use	1.19 (0.66-2.12)
Age	0.97 (0.93-1.01)
Race	
Black	1.32 (0.81-2.17)
Asian/Pacific Islander	2.06* (1.00-4.22)
Multiracial/Other	1.66 (0.92-3.00)
Education Level	
Sophomore	0.90 (0.45-1.81)
Junior	1.16 (0.60-2.28)
Senior	1.18 (0.62-2.26)
Graduate Degree/J. D./PhD	0.97 (0.45-2.09)
Free Lunch	0.97 (0.64-1.48)

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

Table 5 presents a multivariate logistic regression of coercive control victimization that includes three non-observable measures ("*Read your text messages without your knowledge", "Read your email without your knowledge*", and "*Felt suspicious and jealous of you*") along with the other coercive control victimization items but excludes coercive control perpetration, domestic violence perpetration or victimization, and sexual victimization. The inclusion of the non-observable measures increased the number of respondents who experienced coercive control by 13 percent. The results for this third model were similar to the first. Higher aggression scores increased the odds of coercive control victimization, as did higher antisocial behavior scores. The relationship status of not living together/dating/other increased the odds of experiencing coercive control victimization compared to being single or divorced. Like the first model, as respondents' age increased, the odds of coercive control victimization decreased.

Table 5 *Logistic Regression Examining Coercive Control Victimization (Incl. Non-Observable), Excluding Violence*

Logistic Regression Examining Coercive Control Victimization (Incl. Non-Observable), Excluding Violence	
Variable	Odds Ratio (CI)
Aggression Score	1.02* (1.00-1.04)
Impulsivity Score	1.03 (0.96-1.10)
Antisocial Behavior	1.98** (1.22-3.20)
Gender	1.33 (0.89-1.99)
Sexual Orientation	0.77 (0.53-1.12)
Relationship Status	
Married	0.86 (0.47-1.57)
Cohabitating	1.11 (0.67-1.85)
Not Living Together/Dating/Other	1.54* (1.06-2.23)
Alcohol Amount	
1 to 2 Drinks	0.75 (0.46-1.22)
3 to 4 Drinks	0.81 (0.46-1.40)
5 or More Drinks	0.78 (0.40-1.53)
Marijuana Use	1.32 (0.91-1.91)
Other Drug Use	1.52 (0.92-2.49)
Age	0.97* (0.94-1.00)
Race	
Black	1.29 (0.86-1.95)
Asian/Pacific Islander	1.25 (0.70-2.23)
Multiracial/Other	1.01 (0.61-1.66)
Education Level	
Sophomore	0.94 (0.52-1.70)
Junior	1.42 (0.82-2.49)
Senior	1.24 (0.72-2.12)
Graduate Degree/J. D./PhD	0.91 (0.50-1.68)
Free Lunch	1.09 (0.76-1.55)

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

The final model, *Table 6*, is a multivariate logistic regression of coercive control victimization that includes three non-observable tactics ("*Read your text messages without your knowledge*", "*Read your email without your knowledge*", and "*Felt suspicious and jealous of you*") and includes coercive control perpetration, domestic violence perpetration or victimization, and sexual victimization. By including the non-observable victimization measures, the number of respondents who experienced coercive control victimization increased by 63 persons. Because

Table 6 is the primary model, and for ease of understanding, significant findings were converted from odds to probability using the "margins" command in Stata. These conversions are not reflected in the table itself. As participant impulsivity scores increased (indicating lower worry/anxiety/avoidance), the odds of being a coercive control victim increased. For every one-point increase on the respondent's impulsivity score, there is 2.22% increase in the probability of the respondent experiencing coercive control victimization. The probability of being a coercive control victim was 54.96% higher for those who perpetrated coercive control. Victims of domestic violence were 35.57% more likely of being the victim of coercive control compared to those who did not experience abuse. Respondents who reported sexual victimization had a 30.44% greater likelihood of also experiencing coercive control victimization. Lastly, males had a greater chance of experiencing coercive control victimization – their chance was 22.12% higher when compared to females.

Table 6 *Logistic Regression Examining Coercive Control Victimization (Incl. Non-Observable)*

Logistic Regression Examining Coercive Control Victimization (Incl. Non-Observable)	
Variable	Odds Ratio (CI)
Aggression Score	1.00 (0.97-1.02)
Impulsivity Score	1.09* (1.00-1.19)
Coercive Control Perpetration	9.18*** (5.96-14.11)
Domestic Violence Victimization	4.20** (1.69-10.43)
Domestic Violence Perpetration	1.48 (0.97-2.25)
Sexual Victimization	3.41*** (2.10-5.54)
Antisocial Behavior	1.19 (0.65-2.15)
Gender	2.44*** (1.48-4.03)
Sexual Orientation	0.81 (0.51-1.28)
Relationship Status	
Married	0.66 (0.31-1.41)
Cohabitating	0.54 (0.28-1.04)
Not Living Together/Dating/Other	1.04 (0.65-1.68)
Alcohol Amount	
1 to 2 Drinks	0.69 (0.38-1.25)
3 to 4 Drinks	0.76 (0.39-1.48)
5 or More Drinks	0.72 (0.32-1.60)

Marijuana Use	1.08 (0.68-1.69)
Other Drug Use	1.30 (0.70-2.42)
Age	0.97 (0.93-1.00)
Race	
Black	1.19 (0.72-1.98)
Asian/Pacific Islander	1.65 (0.79-3.45)
Multiracial/Other	1.08 (0.59-1.97)
Education Level	
Sophomore	0.76 (0.37-1.56)
Junior	1.34 (0.67-2.66)
Senior	0.91 (0.47-1.77)
Graduate Degree/J. D./PhD	0.87 (0.40-1.88)
Free Lunch	1.00 (0.65-1.54)

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

VII. Discussion

Previous studies that have examined coercive control victimization have primarily investigated how the victim characteristics of gender or relationship status influence the abuse. Accordingly, there have been few studies that have examined psychological correlates of coercive control victimization. The current study advances the knowledge of coercive control victimization by examining its relationship with the personality traits of aggression and impulsivity.

The findings of this research contribute to the understanding of coercive control victimization in four significant aspects. First, coercive control victimization commonly occurred in the sample. Close to half of all respondents (44.98%) reported experiencing coercive control victimization tactics within twelve months, which indicates the importance of its study. Coinciding with this finding that coercive control is so prevalent in college is the result that age and coercive control victimization are negatively correlated. As the age variable in this study and in others (Dichter, Thomas, Crits-Christoph, Ogden, & Rhodes, 2018; Policastro & Finn, 2017), indicates, coercive control is experienced most frequently by young adults. For every year increase in respondents' age, their odds of experiencing coercive control victimization decreased by three percent. However, in this study, seventy-five percent of this sample was under the age of 26 and 90 percent were younger than 34. A key takeaway from this research is that coercive control in relationships is often taking place during young adulthood, during the college years. Because coercive control is experienced more frequently by younger adults, it could be a sign of inexperience with serious relationships. And to feel secure in a new relationship and new environment, since serious dating and relationships are new experiences, coercive control tactics might be used as a measure to maintain the relationship between inexperienced partners (Leisring, 2012). The results for relationship status in *Table 4* could indicate some support for

this idea; as respondents who were married or cohabitating (conceivably signifying more mature, developed relationships) had odds reduced by 25 to 60 percent of experiencing coercive control victimization. Although intimate partner violence is most common among cohabitating couples, there are two reasons why coercive control may be different. The first is that coercive control and age are negatively correlated. So, as these individuals age, they become less likely to experience coercive control and more likely to end up in more mature relationships where they live together. The other reason is that coercive control is an abuse that does not require physical contact or partners being present together, especially with current technology. Just as physical abuse is, out of necessity, going to take place in relationships where couples are in proximity of each other, coercive control can occur while separated, electronically, and through deceitful means. Again, the purpose of domestic abuse is to maintain power over another. Therefore, when there is a loss of dominance due to distance, coercive controlling tactics are an effective answer.

Second, conditional support for Hypothesis 1 was found. At the bivariate level and when offending variables were excluded, as respondent aggression scores increased, so too did their odds of being a victim of coercive control victimization. However, as can be noted in the differences between *Tables 3, 4*, and *5* when coercive control perpetration, domestic violence perpetration/victimization, and sexual victimization are included, the effect of aggression on coercive control victimization is nonsignificant. This effect suggests that although aggression contributes to the chance of experiencing coercive control victimization, it is the offending of the individual that increase the odds of victimization. The suggested relationship between variables would give credence to the proposal that aggressive individuals might also be coercive control victims due to the victim-offender overlap. Reflective of this possibility, coercive control perpetrators are nine times more likely than non-perpetrators to be coercive control victims. If

this supposition is correct, it may indicate that some aggressive persons lack the capable guardianship needed to not fall prey to coercive control methods. Perhaps it is the aggressor's focus on goal achievement and the belief of the consequences assured by coercive control that makes them vulnerable. This susceptibility may occur because aggressors are focused on attaining their goals, and they are on the offensive. Because of this single-mindedness this may make them likely targets for reciprocal or retributive coercive control.

Third, in support of Hypothesis 2, impulsivity was positively associated with coercive control victimization. Bivariate analysis revealed no significant relationship between impulsivity and coercive control victimization. Only after including all measures in the multivariate analysis (see *Table 6*) was the impulsive measure found to be positively correlated to coercive control victimization. It is not immediately clear why including the non-observable coercive control victimization elements increased the significance. Perhaps these statements were answered impulsively, or there is the chance that the participants discovered the actions in the statements through other means not explained by the survey. Participants whose scores indicated lower anxiety/risk-avoidance scores had increased chances of being a victim of coercive control. Greater impulsivity produced higher odds of being a coercive control victim. These results would seemingly support Schreck's theory of self-control. Because individuals with low self-control lack future orientation, do not practice diligence, and are sensation seeking (low avoidance) they are more likely to become victims. Therefore, impulsive individuals would be more likely to report coercive control victimization. A significant other in a relationship, who lacks self-control, would plausibly victimized in order for their partner (the perpetrator) to reign in their behavior. Also, a vital part of coercive control tactics is the belief of the victim in credible consequences. A person who possesses an impulsive personality does not by nature consider consequences. These

two factors, control and consequences, are indicators for why a perpetrator may feel their actions are necessary in the relationship.

Another explanation could be the measure used within this study, as it focused on preoccupation or worry. The statements for the impulsivity measure were "*I feel pretty worried or upset when I think or know somebody is angry at me*", "*If I think something unpleasant is going to happen I usually get pretty worried*", "*I feel worried when I think I have done poorly at something important*", and "*I worry about making mistakes*" All of these questions have been used in various forms in previous research as measures of impulsivity. It is possible that scoring higher on these statements did not indicate higher impulsivity, but instead showed lowered conscientiousness, of which a coercive control perpetrator might take advantage. Perhaps perpetrators take advantage of the lack of worry, diligence, and concern, to "outthink" threaten consequences that their partner had considered. For example, a target may decide they want to go to the bar without their partner. The partner (perpetrator) responds that they will no longer allow the target to see their family, as they have the only vehicle in the relationship, if the target does go to the bar. Future studies would do well to include a full BIS or other measures to reflect the true spectrum of the impulsive trait, allowing the researcher to determine if any of the other subscales have an effect.

The final contribution to the coercive control victimization literature that this study produced is in regard to gender. As illustrated in *Tables 4* and *6*, male respondents were twice as likely as females to experience coercive controlling tactics over the previous year, and in all regression models, males showed greater odds of experiencing coercive control victimization. However, it should be noted that gender was only significant when violent perpetration and victimization variables were controlled for, which could indicate that males are more aggressive than females.

There are possible explanations to why college males have higher odds of experiencing coercive control victimization more than college females. Since being male significantly increased the odds of coercive control victimization, it might be surmised that coercive control is an alternative to physicality when trying to dominate a partner, and that it allows for a shift in power from physical strength to coercion, control, and dominance. Thus, coercive control might become an effective tool for females to control or counter male partners. This suggestion is supported by the result that 50 percent of women respondents reported being coercive control perpetrators in the last twelve months, compared to 34 percent of men who perpetrated.

Overall, the findings in this study indicate that there is a relationship between coercive control victimization, aggression, and impulsivity. Although this research is a beginning in examining these correlates, it would be beneficial to use full assessments, ones that include all trait subscales, to measure full trait scales against coercive control victimization. It would also be helpful to retest these personality traits against *experienced* coercive control victimization that includes Digital Dating Abuse and Digital Coercive Control, meaning unwelcome coercive control that respondents know is occurring. Understanding specific personality traits and their relationship to coercive control victimization could assist in the development of treatment strategies for victims and potential victims, especially if some of the characteristics of the personality traits that are negatively correlated with coercive control victimization could be taught as strategies. For instance, individuals with low impulsivity might benefit from learning detachment to counter coercive control tactics, as it teaches them to not need to manage or feel solely responsible for relationship troubles, which coercive control perpetrators rely upon (Stark, 2007). Or techniques such as Cognitive Behavioral Therapy could be employed with aggressive individuals to have them reframe their expectations in relationships into compassion and sharing.

Because coercive control victimization is correlated with other forms of violent perpetration and victimhood and can lead to very serious consequences on its own, universities and colleges may want to add to their student safety programs relevant training. Students could benefit from coercive control prevention training. Also, recognizing the signs and dangers of worry, aggression, impulsivity, and coercive control perpetration would be beneficial in reducing coercive control victimization. Training would also help to raise awareness that abuse is often not physical, and because of this, other resources than law enforcement, like counseling or support groups, may provide solutions.

The current study does have some recognizable limitations. The first is that the findings are based off research using a convenience sample of university students from an urban university in the southeast, which limits generalization to other universities or the population as a whole. Although the purpose of this study was not to determine if personality traits cause coercive control victimization, it should still be noted that the data gathered are cross-sectional, which does not allow for cause and effect to be established, even though it is unlikely that coercive control victimization causes the creation of personality traits. For the future, researchers should not only take a more detailed measure of aggression and impulsivity but should also consider examining other personality traits. In this same vein, the measure of impulsivity was operationalized from a behavioral system assessment to personality trait characteristics.[4] This limitation was due to the Barratt Impulsiveness Scale contained in the survey having a Cronberg's alpha of .43 and its measures being unable to load on a feature after factor analysis. Instead, a subsection of the Behavioral Inhibition System, which measures worry, anxiety, and

[4] The Barrett Impulsiveness Scale was not used because reliability analysis and factor analysis suggested multiple items to be used separately, rather than a single factor.

avoidance was used as a proxy, as these elements are also dimensions of impulsivity. Also, the difference between *Tables 4* and *6* are notable, in that an additional 63 respondents are added to "yes" category of experiencing coercive control victimization measure by affirming at least one of the non-observable measures. Although the validity of the 63 respondents' answers cannot be determined, it can be said that a more conservative evaluation would be to rely on the model in *Table 4.* Next, there is a possibility of measurement bias. If coercive control victimization and perpetration are reciprocal, then an issue of simultaneity exists, and the results are likely inaccurate. Another limitation stems from the relationship status variable. Although the survey asked respondents if they had been involved in one of the types of relationships on the list in the past twelve months, it did not ask about duration. This means that a respondent could be answering about a relationship that began a day or a week prior to the survey or one that has been established even before the twelve months. Past research has indicated that relationship type is associated with coercive control, but more importantly, the time spent in the relationship will limit the frequency with which abuse may occur. Adding a duration component to future surveys may help to reveal the time/frequency of abuse and may also allude to what stage in the relationship coercive control abuse is most likely to take place. Another variable limitation is that true counts of victimization and perpetration were not recorded. Instead, respondents were given the choice of 0, 1, or 2 or more. If respondents were given the opportunity to report the actual number of incidents within the duration of a relationship, determining how personality traits are related to the frequency of the abuse could be determined. Understanding the actual frequency, not just the occurrence, would add to this research. Lastly, this research has missing data and an analysis of that data uncovered that the individuals missing from the analytical sample differed in significant ways. Those missing in the coercive control victimization had higher prevalence

rates. Those with missing data also had higher impulsivity and higher antisocial scores. They also differed on violent and perpetration occurrence scores: coercive control perpetration was higher, as was domestic violence perpetration and victimization, and sexual victimization. All other variables that were missing were significantly different except for gender and age. These differences between the missing and the sample could have effects on the results. In short, the analytical sample appears to be less antisocial, less impulsive, and less aggressive. Including the missing in the analyses may change the prevalence estimates of coercive control victimization. In addition, including those who are missing may change the presence and strength of the relationships between the key independent variables and coercive control victimization.

VIII. Conclusion

Research and the tragic examples like Hannah Clarke have illustrated that the use of coercive control tactics is an abuse that often goes unrecognized but is no less damaging or dangerous than other forms of intimate partner violence. Therefore, understanding the factors that contribute to its occurrence is essential. The findings in the current study indicate that there is a relationship between the personality traits of aggression and impulsivity with coercive control victimization. These results demonstrate the need for future research using assessments and surveys that are more specific to coercive control and to further include additional personality traits, as it is unlikely that aggression and impulsivity are the only ones to be related to coercive control. For example, neuroticism, one's ability to experience negative or challenging emotional states, would be an excellent test, as indicated by the impulsive questions regarding worry. Further inquiry may reveal methods to prevent coercive control or provide information on how to best treat those affected by the abuse.

Appendix A

Biopsychological Correlates of College Victimization Study, Survey Questions

Coercive Control Victimization

How often during the previous 12 months has someone you dated (i.e., spent time with, "hooked up" with, or gone out with) or in a romantic relationship with done the following?
0 1 time 2 or more times N/A not in a relationship or date during the previous 12 months

Monitored your telephone calls or e-mail contact
Monitored your time and whereabouts
Prevented you from seeing your friends
Demanded access to your cell phone
Demanded access to your email or social media accounts
Read your text messages without your knowledge
Read your email without your knowledge
Wanted to know where you went and who you spoke to when not together
Felt suspicious and jealous of you
Refused to wear a condom during sex
Threatened to hurt themselves or commit suicide because they were upset
Kept you from leaving the house when you wanted to go
Destroyed something that was important to you

Aggressive Trait

Instructions: Please rate each of the following items in terms of how characteristic they are of you. Use the following scale for answering these items.

1	2	3	4	5
extremely uncharacteristic of me				extremely characteristic of me

1	I wonder why sometimes I feel so bitter about things.	1	2	3	4	5
2	I have trouble controlling my temper.	1	2	3	4	5
3	I have threatened people I know.	1	2	3	4	5
4	I can't help getting into arguments when people disagree with me.	1	2	3	4	5
5	I flare up quickly but get over it quickly	1	2	3	4	5
6	Given enough provocation, I may hit another person.	1	2	3	4	5
7	I often find myself disagreeing with people	1	2	3	4	5
8	There are people who pushed me so far that we came to blows	1	2	3	4	5

9	At times I feel I have gotten a raw deal out of life.	1	2	3	4	5
10	Other people always seem to get the breaks	1	2	3	4	5
11	My friends say that I'm somewhat argumentative.	1	2	3	4	5
12	Sometimes I fly off the handle for no good reason.	1	2	3	4	5

Impulsive Trait

Instructions: People differ in the ways they act and think. Please choose how often you do the following. Do not spend too much time on any statement. Answer quickly and honestly.

1 = Very True; 2 = Somewhat True; 3 = Somewhat False; 4 = Very False

1	I feel pretty worried or upset when I think or know somebody is angry at me.	1	2	3	4
2	If I think something unpleasant is going to happen I usually get pretty worried.	1	2	3	4
3	I feel worried when I think I have done poorly at something important.	1	2	3	4
4	I worry about making mistakes.	1	2	3	4

Coercive Control Perpetration

How often during the previous 12 months have you done to someone you dated (i.e., spent time with, "hooked up" with, or gone out with) or in a romantic relationship with the following?
0 1 time 2 or more times N/A not in a relationship or date during the previous 12 months

Monitored their telephone calls or e-mail contact
Monitored their time and whereabouts
Prevented them from seeing their friends
Demanded access to their cell phone
Demanded access to their email or social media accounts
Read their text messages without their knowledge
Read their email without their knowledge
Wanted to know where they went and who they spoke to when not together
Felt suspicious and jealous of them
Refused to wear a condom during sex
Threatened to hurt yourself or commit suicide because you were upset
Kept them from leaving the house when they wanted to go
Destroyed something that was important to them

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Vita

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