# EXAMINING SEX DIFFERENCES AND THE ROLE OF PSYCHOPATHIC TRAITS IN CYBER AGGRESSION AND VICTIMIZATION

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by

Katherine L. Perez

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## DEDICATION

I dedicate this dissertation to my mom who encouraged me to pursue all of my goals and persevere through life's challenges, to my daughter, Elizabeth Louise, for teaching me unconditional love and patience, and to all the other strong women in my life – may we change the world.

## ABSTRACT

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While a large body of criminological literature has focused on risk factors associated with psychopathic traits when assessing criminality, less is known about its role in alternative outcomes such as cyber aggression and victimization. Evidence suggests psychopathy may influence both cyber aggression and victimization as these individuals are more likely to engage in a host of predatory and risky behaviors; however, to date, no study has investigated this association among college samples where risk of victimization and the likelihood of engaging in cyber aggression remains high. Using data collected among a college sample during the spring and fall semesters in 2022, this dissertation explores associations between a three-factor model of psychopathy and the likelihood of engaging in cyber aggression and reporting victimization. Findings revealed that egocentricity, antisocial behavior, and general victimization increased the likelihood of engaging in cyber aggression suggesting that primary and secondary psychopathic traits act as a risk factor in cyber aggression. Significant sex differences were also reported, where males who reported greater egocentricity and antisocial behavior were more likely to report cyber aggression while only egocentricity increased the likelihood of engaging in cyber aggression for females, suggesting females may take more indirect forms of aggression when exhibiting interpersonal deficits only.

Findings also revealed that psychopathic traits differentially affected victimization, where egocentricity acted as a protective factor and antisocial behavior acted as a risk factor for females, whereas the opposite was found for males. Results

reveal the need to independently assess psychopathic traits as unique predictors of general and sexual victimization that may vary by sex. Implications on the role of individual personality traits among college students suggests the need to reinforce bystander intervention programs to decrease the likelihood of engaging in predatory behaviors and to encourage empathy and cognitive behavioral skills training to reduce cyber aggression incidents. Furthermore, findings reveal overlap between victimization and offending, suggesting programs should be directed toward identifying risky situations and changing behavior to promote success and to provide better access to mental health services for students to cope with negative life events to reduce the likelihood of antisocial behavior.

KEY WORDS: Psychopathic traits, Cyber aggression, Victimization, Sex differences

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# CHAPTER I

## Introduction

Since the development of the internet, online interactions through forums, instant messaging, and social media have allowed users all over the world to interact on a daily basis behind a screen. With that comes online personas, (fake) profiles, and anonymity not afforded in the "real world" or day-to-day lives. This may create a distorted perception of reality and consequences, where certain actions may not seem as negative or dangerous (Nazir & Thabassum, 2021). These online interactions not only allow us to share experiences with others but have also created a space for online bullying and sexual harassment, or the expression of antisocial behavioral features through online social networking services (SNS). Post-COVID-19 saw an increase in online activity (Choy et al., 2022; Nazir & Thabassum, 2021; Shin & Choi, 2021), with recent literature suggesting an increase in online cyber aggression[1] and sexual harassment (Karmakar & Das, 2021; OECD, 2020). Cyber aggression is defined as the "intentional harm delivered by the use of electronic means to a person or a group of people irrespective of their age, who perceive(s) such acts as offensive, derogatory, harmful, or unwanted" (Grigg, 2010, p. 152). The OECD (2020) found that cyber aggression was on the rise due to the increased digitalization and changes in social interactions, leading to (sexual) exploitation and "sexting" (e.g., sending explicit messages and/or pictures), risky behaviors, exposure

[1] This dissertation uses the term "cyber aggression" as a broad term that encompasses cyberbullying and online sexual harassment. While many studies use the term "cyberbullying", there has been debate on what constitutes cyberbullying versus cyber aggression (see Corcoran et al., 2015; Wyckoff et al., 2019). Therefore, a broader term of cyber aggression may be used as it could constitute a single incident of aggressive behavior online rather than a pattern of behavior, which is more in line with the measure captured for cyberbullying within this dissertation. However, the literature often relies on cyberbullying measures and therefore will include both when providing theoretical support. Participants used within the study may have engaged in a single aggressive incident or repeated cyberbullying behavior.

to violent material (Public Health Ontario, 2020), and among adults, increased demand for underage/child abuse content, giving rise to sex trafficking and exploitation, as well as other cybercrimes (see also Paat & Markham, 2021). In other words, recent increased usage of online platforms has given way to changes in cybercrimes and both online and in-person forms of victimization.

While bullying is defined as repetitive, intentional verbal and non-verbal behaviors centered on causing deliberate harm to a person (National Association of School Nurses, 2016; Sleekman & Vessey, 2004) with differences between the balance of power and clear lines of systematic abuse (Rigby, 2002; Smith & Sharp, 1994), cyberbullying, extends this by modality (i.e., electronic, or online means; Slonje et al., 2013). Cyberbullying, a form of cyber aggression, has been defined as an "aggressive, intentional act carried out by a group or individual, using electronic forms of contact, repeatedly and over time against a victim who cannot easily defend him or herself" (Smith et al., 2008, p. 376). Interactions can occur through text messages, emails, videos, websites, or online media platforms, with an attempt to harass, criticize, or ostracize others (Kowalski et al., 2012). The Center for Disease Control and Prevention (2014) has since included cyber aggression and cyberbullying (i.e., technology) with traditional forms of bullying (i.e., *in-person*) in its definition. Those affected by cyber aggression experience negative impacts including poor mental health, Post-Traumatic Stress Disorder (PTSD), and poor psychological functioning even after the abuse has stopped (Karmakar & Das, 2021; Rosli et al., 2021; Takizawa et al., 2014; Wolke et al., 2015; Ybarra et al., 2006).

Cyber aggression and cyberbullying literature have largely relied on traditional bullying literature when identifying patterns in behaviors. Bullying literature suggests there are two types of individuals who engage in bullying: (1) Individuals who are well-connected to peers (i.e., have support) may seek to maintain social power and are more concerned with popularity, and (2) individuals who are more isolated from peers, who can be easily pressured or may seek to dominate others, and/or experience emotional deficits when it comes to understanding the feelings of others (e.g., negative personality traits) (U.S. Department of Health and Human Services [USDHHS], 2018). As a result, the availability of the internet and online interactions makes different forms of bullying, harassment, and antisocial behaviors possible. Online interactions have the ability to not only reach a larger proportion of people compared to regular in-person interactions, but also have the ability to reach others that may support the behavior, suggesting those who are engaging in online antisocial behaviors may find greater support (i.e., well-connected social relationships) or feel validated when engaging in bullying behaviors (see Rosli et al., 2021). Differences in cyber aggression have also been found by gender, with girls being more likely to experience cyberbullying compared to boys (Johnson et al., 2018) and boys being more likely to be perpetrators of cyberbullying (Erdur-Baker, 2010; Heiman & Olenik-Shemesh, 2015; Li, 2006; Musharraf & Anis-ul-Haque, 2018; Šincek, 2014).

Individuals engaging in these types of online behaviors are more likely to express interpersonal deficits (i.e., grandiosity and manipulative behavior) as well as egocentric views, express callousness or a lack of remorse towards others, be more impulsive (Fang et al., 2020; Orue & Calvete, 2019; Wallner & Stemmler, 2021), and engage in other

forms of antisocial behavior in their own lives, suggesting they may exhibit at least some forms of psychopathic characteristics. Psychopathy is a multidimensional construct highlighting interpersonal (e.g., egocentricity or grandiose sense of self, manipulative nature, superficial charm, and/or pathological lying) and affective personality traits (e.g., callousness, lack of remorse or guilt/lack of empathy) along with lifestyle deficits (e.g., parasitic lifestyle, sensation seeking, impulsivity, and lack of realistic goals) and antisocial behavioral facets (e.g., criminal propensity and versatility, and poor behavioral controls) that have been found to be instrumental in offending and other forms of predatory behaviors (Beaver et al., 2017; Boccio & Beaver, 2018; Cleckley, 1941; Cooke & Michie, 2001; Hare, 1991, 1996; 1998; Hare & Neumann, 2008; O'Connell & Marcus, 2016). Individuals who report greater psychopathic traits are more likely to be callous, engage in risky behaviors, and overall exhibit fast life strategies (e.g., risk-taking, impulsivity, sensation-seeking, greater number of sexual partners and engage in short-term mating strategies) that increase risk of antisocial behavior (Hare, 1991; Hare & Neumann, 2008; Jonason et al., 2011; Tatar et al., 2012) and possibly, victimization (Beaver, Al-Ghamdi et al., 2016; Boccio & Beaver, 2018; Fanti & Kimonis, 2013; Narvey, 2020).

Although the cyber aggression literature has grown at a substantial rate, more research, however, is needed in understanding the role of psychopathy in antisocial behaviors through online platforms such as cyberbullying and sexual harassment. Prior literature finds evidence that narcissism (Alavi et al., 2022), grandiosity and manipulative behavior, callousness, and impulsivity were associated with cyber aggression (Orue & Calvete, 2019), suggesting that psychopathy, at least in part, may contribute to the

development and decision to engage in the behavior. Research testing psychopathy in the role of cyber aggression has found a positive effect (i.e., greater psychopathy scores led to greater likelihood of engaging in cyber aggression; Alavi et al., 2022; Buckels et al., 2014; Shachaf & Hara, 2010), suggesting relations between the two may exist. Literature has only recently begun to look at these associations and are limited in samples, and therefore, more research is needed in identifying the role of psychopathic traits in cyber aggression, particularly among adult samples and understanding sex differences. For example, males may take a more direct form of bullying behavior while females are more likely to engage in other forms of bullying behaviors that are less direct and more manipulative (Connell et al., 2014; Crick & Nelson, 2002; García-Fernández et al., 2022; Olweus, 1995; Smith et al., 2002). It could be that females are more likely to engage in less overt forms of aggression exhibited through online cyberbullying (Connell et al., 2014; García-Fernández et al., 2022; Smith et al., 2002). As a result, while females overall engage in less antisocial behaviors as males, they may be more likely to engage in cyber aggression, particularly when they exhibit certain traits (e.g., psychopathic characteristics) and thus, further exploration is needed to identify these associations and differences between sexes.

Furthermore, it is important to note that cyber aggression literature (e.g., cyberbullying) and personality often focuses on measuring psychopathy through the Dark Triad ( e.g., ‘dark core’ personality traits including psychopathy, Machiavellianism, and narcissism)/Tetrad (e.g., Dark Triad traits in addition to sadism) (see Alavi et al., 2022; Azami & Taremian, 2021; Goodboy & Martin, 2015; Hoareau et al., 2017; Paulhus & Williams, 2002) instead of psychopathy as its own construct, yet it is considered to the

"darkest" construct when looking at the Dark Triad. This is one reason why it is essential to parse out psychopathic characteristics, especially if psychopathy comprises a group of personality traits that remains a consistent correlate of crime.

Although previous literature has found few differences in cyber aggression by sex (Connell et al., 2014; Slonje & Smith, 2008), others have found significant differences (Erdur-Baker, 2010; Heiman & Olenik-Shemesh, 2015; Hoareau et al., 2017; Li, 2006; Musharraf & Anis-ul-Haque, 2018), suggesting differences in the decision to engage in cyberbullying and harassment may vary by sex. In line with this thought process, psychopathic traits have consistently been identified as being more prominent in males (Coid et al., 2009; de Vogel & Lancel, 2016; Kreis & Cooke, 2011; Lee & Salekin, 2010), providing further evidence as to why we should investigate its role in the development of online antisocial behaviors. Only a handful of studies have investigated the role of psychopathy and cyber aggression to date among adult samples, and even less assess sex differences among college samples, despite research finding substantial differences among psychopathic traits and cyberbullying behavior between males and females and high percentages of college students reporting some form of cyber aggression (see Gibb & Devereux, 2014; Musharraf & Anis-ul-Haque, 2018).

As online interactions occur in greater frequency through different aspects of our day-to-day lives as businesses and companies have made moves toward online positions and increased usage in online SNS (Bacher-Hicks et al., 2022; Rosli et al., 2021; Shin & Choi, 2021), investigating the role of psychopathic characteristics is essential in understanding the likelihood and development of these behaviors as well as explore possible sex differences in online interactions. While it is possible that many who engage

in cyber aggression restrict their behaviors to online personas only, research suggests that these individuals may display antisocial behaviors in their day-to-day lives as well, predicting behaviors outside of internet usage (Connell et al., 2014; Goodboy & Martin, 2015; Görzig & Olafsson, 2013). Implications of these findings suggest individuals who engage in cyber aggression may also display alternative forms of antisocial behaviors, such as bullying, aggression, and risky behaviors (Connell et al., 2014; García-Fernández et al., 2022). If psychopathic traits increase the likelihood of offending and other predatory behaviors, and previous literature finds that psychopathic traits remain relatively stable over time (Loney et al., 2007), then it is likely that those who score high in psychopathy are engaging in a host of negative behaviors including cyber aggression. With the shift to online platforms over recent years (e.g., post-pandemic), it is possible that these traits have adapted to changing environmental conditions where individuals engage in cyber aggression because they perceive that possible benefits outweigh the costs (i.e., balancing selection; Buss, 2009; Glenn et al., 2011), fostering an environment conducive to predatory behaviors with limited perception of threat. In other words, individuals who report greater psychopathic traits may be adapting to changing environments and maximizing on potential benefits through online formats.

With the stability in personality and consistency found among individuals who score higher in psychopathy, it is unsurprising that negative personality characteristics result in various forms of antisocial behaviors. Psychopathy identifies unique personality characteristics that highlight interpersonal and affective deficits, along with behavioral issues that could influence cyber aggression. While it is likely that psychopathic traits may play some role in the decision to engage in cyber aggression as a form of antisocial

behavior, less is known about how these traits effect the likelihood of experiencing victimization and if those victimization experiences affect the decision to engage in antisocial behavior through cyber aggression. While it is true that a large proportion of the psychopathy literature focuses on criminological outcomes (Boutwell et al., 2017; Gretton et al., 2004; Hare, 1991; Lynam et al., 2009), only recently has research started to investigate relations between psychopathy and victimization, despite strong implications between psychopathy, offending, and victimization (i.e., the victim–offender overlap). If psychopathy encompasses core personality features and negative behavioral outcomes that could affect likelihood of risk (i.e., risky behaviors) as they may violate social norms, lack guilt for their behavior, are short-tempered, egocentric, and more manipulative (Boccio & Beaver, 2021; Delisi, 2009; Hare, 1996; Hare & Neumann, 2008), then increased exposure to situations could make individuals more vulnerable to victimization, and as such, it is worth investigating psychopathic traits through both predatory behaviors and victimization.

Because psychopathy is believed to play a role in the decision to engage in cyber aggression, with research finding support for other forms of proximal antisocial behavior (e.g., bullying; Connell et al., 2014), it is likely that psychopathy may not only influence the decision to engage in cyber aggression but may also increase exposure to victimization as well. For example, recent literature has found support for the association between psychopathy and victimization, where individuals who displayed greater psychopathic traits were more likely to experience victimization in adolescence and adulthood (Beaver, Al-Ghamdi et al., 2016; Boccio & Beaver, 2021; Narvey, 2020). Boccio and Beaver (2021) provide evidence that psychopathic traits interact with

criminality, increasing the likelihood of victimization, suggesting psychopathic traits may provide a disadvantage. It is still possible, however, that psychopathic traits create a reciprocal relationship between offending and victimization, where victimization experiences and psychopathy increase the probability of engaging in further antisocial behaviors in changing environments (e.g., move to online platforms). More research, however, is needed to understand the role of psychopathy among adult samples and if individual traits increase risk of victimization experiences. Furthermore, research has begun to investigate the association between victimization and cyber aggression, suggesting such relations may exist. For example, research pre-pandemic found that greater internet usage was related to greater reports of both cyberbullying and cybervictimization, highlighting associations between the victim–offender overlap (Kowalski et al., 2014, 2019). Therefore, understanding the role of victimization in online antisocial behavior as internet usage increases should be further explored. In addition, due to the limited research that currently exists between psychopathy and victimization, further exploration is needed to assess differences in victimization type (e.g., sexual victimization or physical assault) by sex as these identify unique experiences.

Using a cross-sectional sample of university undergraduate students, this dissertation seeks to examine the association between psychopathic characteristics, victimization, and cyber aggression by sex. Specifically, this study is interested in identifying the role of psychopathic characteristics and its relations to both offending behavior (i.e., cyber aggression) and victimization stratified by sex to determine individual sex differences and the role of personality in victimization and online antisocial behavior. Chapter 2 of this dissertation will discuss the supporting literature

and theoretical framework to explain the role of psychopathy and its relation to victimization and cyber aggression, and why these association may vary across sex. A review of the existing literature will identify the gaps in current research on victimization types, differences by sex, and cyber aggression as online interactions have become more prevalent. Chapter 3 will provide a detailed overview of the methodology including the data collection, sample, and plan of analysis used for this dissertation. Chapter 4 will present the results from the analyses. Finally, Chapter 5 will discuss the findings and what they mean for future research, along with the limitations of the study and recommendations moving forward.

# CHAPTER II

## Literature Review

### Theoretical Framework

Evolutionary and life course perspectives have been introduced as ways to explain the development and stability of psychopathy (Buss, 2009; Glenn et al., 2011; Međedović et al., 2017). These perspectives incorporate explanations of sex differences that have been previously identified within the clinical construct, and more recently, have been introduced as theoretical support for observed sex differences in the experiences of victimization and consequences of cyber aggression (i.e., cyberbullying) (Wyckoff et al., 2018). Although research has incorporated traditional criminal justice theories when understanding the role of antisocial behaviors that have been applied to explain the role of psychopathy and offending, particularly cyber aggression, as well as the role of victimization, (e.g., routine activities theory and *A General Theory of Crime* assessing low self-control; see Cohen & Felson, 1979; Gottfredson & Hirschi, 1990), they are limited in their explanation of biological sex differences and independent effects of psychopathic characteristics that have been consistently found throughout the literature. Additionally, they focus on the antisocial behavioral effects or negative outcomes and fail to identify positive outcomes associated with psychopathic traits, particularly when individuals are exposed to harsh psychosocial backgrounds early in life (see da Silva et al., 2015) or where psychopathy has become adaptive (e.g., successful psychopathy hypothesis; Međedović et al., 2018; Mullins-Sweatt et al., 2010). Furthermore, although psychopathy and self-control share overlaps (e.g., impulsivity, risk-seeking and increased risk of recidivism and victimization), they produce differences in outcomes which is why

previous literature has tested them as competing theories to antisociality (DeLisi et al., 2018).

Recent literature finds that psychopathy may actually be situational, highlighting an adaptive and evolutionary role of the construct and the possible benefits associated with the personality type, which may also vary by sex (Buss, 2009; da Silva et al., 2015; Glenn et al., 2011; Međedović et al., 2018). Literature has found support for evolutionary theory of psychopathy in improving fitness, where factor 1 (i.e., interpersonal and affective personality characteristics) traits may actually improve fitness (e.g., protections in mental health and distress) in stressful environments (Glenn et al., 2011; Međedović et al., 2017)[2]. Individual-level personality and trait theories provide further support for the effects of psychopathy on a variety of behavioral outcomes and experiences including victimization, criminal, and noncriminal predatory behaviors (Walter, 2004), providing further evidence on psychopathy's role in antisocial behavior and victimization experiences as an explanation for observed sex differences (Cale & Lilienfeld, 2002; Glenn et al., 2011). In other words, these perspectives help explain the role of psychopathy in antisocial behaviors, victimization, as well as benefits to possessing these traits while acknowledging sex differences.

Evolutionary perspectives and biosocial explanations have been previously applied to the context of psychopathy (da Silva et al., 2015; DeLisi, 2009; Glenn et al., 2011), identifying individual differences as a major contributor to socially adaptive

[2] Psychopathy is a multidimensional construct with support for two main factors that highlight 4 facets (Hare & Neumann, 2008). Factor 1 encompasses two facets of interpersonal and affective primary psychopathic personality traits while factor 2 encompasses two facets comprised of secondary behavioral features including antisocial behaviors and a self-defeating lifestyle. Individuals may score higher or lower on individual facets that reflect a range of the expression of psychopathy.

problems (e.g., relationships, reproduction, friendships, etc.; see Buss, 2009; Glenn et al., 2011). For example, most individuals will participate in some form of strategy in selecting a mate; however, differences occur between individuals through the selection process (e.g., intelligence, nurture, empathy, agreeableness, etc.; Buss, 2009). Theoretical perspectives based on adaptationist analysis have been applied in relation to psychopathy when assessing differences in life history strategies (Buss, 2009; Glenn et al., 2011) and balancing selection where genetic variation occurs when certain traits are favored, or considered adaptive, depending on specific environmental conditions (Buss, 2009; Penke et al., 2007). This dissertation will discuss these evolutionary perspectives in the context of psychopathy as an adaptation and apply them to antisocial behavior and victimization. Additionally, this dissertation will apply these evolutionary perspectives to explain differences that occur based on sex in changing environments and how psychopathic traits can used as an explanation of antisocial behavior and victimization.

### *Evolutionary Perspectives on the Role of Psychopathy*

Many individual traits have been noted as being adaptive (i.e., increasing an organism's fitness in particular environments), where the adaptive utility of the trait may have resulted from a particular process that produced it (Jurjako, 2019; Sterelny & Griffiths, 1999). Adaptationist reasoning has been previously understood through the context of Life Histories (LH) theory, where it is believed that tradeoffs occur due to limited energy and time, including: *somatic effort* (i.e., resources are geared toward continued survival) compared to *reproductive effort* (resources are allocated to producing offspring or reproduction); *parental effort* when compared to *mating effort*; *quality* compared to *quantity* of offspring; *future* compared to *present* reproduction (Glenn et al.,

2011; Kaplan & Gangestad, 2005). For example, if a parent invests in many resources for a child, then they may be less able to have more children; parents who are less involved or provide less resources may be more likely or capable of having more children with decreased parental investment because they are now allocating less resources and energy. Additionally, the success of mating outcomes may be the result of competition, resulting in aggression toward others, particularly same sex aggression. This could mean that evolutionary perspectives may in part explain bullying behavior and cyber aggression. More recently, research has applied evolutionary framework to cyber aggression, finding support in sex differences in the expression of cyber aggression through online sources (Wyckoff et al., 2019).

LH theory has been found to be effective in understanding individual differences in behavior (see Buss, 2009), as they consist of many life history strategies that exist on a "slow" and "fast" continuum (Figueredo et al., 2006; Gladden et al., 2009) where it is believed that specific personality traits may facilitate variations in life history strategies and strategic individual differences (Buss, 2009; Glenn et al., 2011). Research has demonstrated that individuals who score high in psychopathy are more likely to engage in a variety of risky behaviors and violent and nonviolent offending (Adams et al., 2014; Dean et al., 2013; Gretton et al., 2004; Hunt et al., 2005; Simmons et al., 2018; Thomson, 2018), where psychopathy in particular may facilitate fast LH strategies (Barr & Quinsey, 2004; Figueredo et al., 2006; Jonason et al., 2010; Mealey, 1995; Simmons et al., 2018). Specifically, these individuals may be more likely to take risks, have poor planning for the future, engage in greater short-term mating or have a greater number of sexual

partners, and may be more impulsive (Figueredo et al., 2006; Hare & Neumann, 2008) which may also lead to increased risk of victimization.

Greater risk-taking, sensation-seeking, and impulsive behaviors may also result in the probability that individuals will be exposed to situations that increase the likelihood of various types of victimization (Connolly et al., 2020; Hong et al., 2019; Monks et al., 2010; Welsh & Lavoie, 2012). Previous research has found that fast LH strategies were correlated with perpetration and prior victimization (i.e., victim–offender overlap). For example, Dunkel and Mathes (2012) found a significant correlation between victimization and LH strategies among males and significant moderation effects among females where fast LH strategies, in combination with prior victimization, was associated with greater levels of sexual coercion. Dunkel and Mathes (2012) conclude that differences may be a result of female sexuality and how it responds to certain environmental situations (see also Baumeister, 2000), where females who exhibit certain life strategies that increase their probability of experiencing victimization (e.g., sexual coercion) may also use the same strategies in their own forms of sexual behaviors compared to those who have not had those experiences (i.e., sexual victimization). Additional research provides support for characteristics that separate fast LH strategies. For example, evidence suggests individuals who engage in risky behaviors and who are more impulsive are more likely to be at risk for (bullying) victimization (Walter & Espelage, 2017; Wyckoff et al., 2019), suggesting that LH strategies may in part play a role in victimization experiences. Because of the overlap between bullying and cyberbullying, these effects may extend to cyber aggression as well. This may also explain why individuals who report greater psychopathic traits are more likely to

experience victimization (Beaver, Al-Ghamdi et al., 2016; Boccio & Beaver, 2021; Fanti & Kimonis, 2012).

Although it can be argued that psychopathy may be in line with non-adaptationist perspectives due to its association with negative characteristics and antisocial and criminal tendencies (i.e., negatively correlated with an organism's fitness and therefore not advantageous; see Power et al., 2013), previous literature has found beneficial effects of psychopathic traits (e.g., successful psychopaths) and support for distal causal mechanisms in the maintenance of psychopathy through evolutionary advantages (Glenn et al., 2011; Mealy, 1995; Penke et al., 2007). In line with LH theory, there may be advantages to developing strategies that focus on achieving instant gratification, engaging in risk-taking, or experiencing callousness, particularly when it comes to mating and reproduction (Lyons, 2015) or protections from stressful life events that affect mental health outcomes (see Međedović et al., 2018). This suggests evolutionary adaptations that lead to the development of psychopathy may result in advantages in reproduction and the continuation of the personality construct (Murphy & Stich, 2000), despite it being considered a fast life strategy. This may in part provide support for the substantial heritability component of psychopathy, where it is believed to be as high as 50% heritable (Blonigen et al., 2003; Glenn & Raine, 2014; Hicks et al., 2012; Larsson et al., 2006; Tuvblad et al., 2014) and relatively stable across the life course (Loney et al., 2007).

Evolutionary perspectives in understanding the development of psychopathy provides further support for understanding sex differences. Men, on average, score higher in psychopathic traits, engage in a greater number of short-term mating, and have a

greater number of sexual partners compared to women (Cale & Lilienfeld, 2002; Hoareau et al., 2017; Jonason et al., 2009; Perez et al., 2022). It is theorized that men and women view costs and benefits differently when speaking in terms of LH strategies and tradeoffs (Glenn et al., 2011). For example, the biological cost and energy required to conceive a child is much greater for women compared to men. As a result, females may have slower life strategies, on average, compared to their male counterparts because of the greater biological obligation (Figueredo et al., 2006; Glenn et al., 2011; Jonason et al., 2010). This may in part explain why psychopathic traits may be more adaptive for men compared to women (Međedović et al., 2018). Furthermore, slow LH strategies have been associated with greater moral emotions (e.g., disgust, shame, guilt, compassion) compared to those with fast LH strategies (Gladden et al., 2009). It may be that individuals with slow LH strategies, at least in part, adhere to moral decision-making and social rules that foster cooperation and group cohesion. When looking at psychopathic characteristics, individuals appear to experience deficits in empathic concern (Cleckley, 1951; Glen et al., 2011; Hare & Neumann, 2008), suggesting psychopathy as a construct utilizes mechanisms that enable fast life strategies and encourages behavioral and personality characteristics that increase the likelihood of offending.

These findings provide some evidence that supports the role of psychopathy in fast LH strategies that make individuals more susceptible to victimization (see Boccio & Beaver, 2021) and increase their likelihood of antisocial behaviors and offending. More recently, however, research is identifying beneficial aspects of psychopathy that may vary within contexts. For example, balancing selection is believed to occur when genetic variation or certain alleles are maintained by selection (see Buss, 2009; Glenn et al.,

2011; Penke et al., 2007) that may be adaptive in specific environments. This means psychopathy, although often associated with negative attributes, may be adaptive under certain conditions, and therefore, may lead to the likelihood that traits are passed down from parent to offspring as an evolutionary advantage. Specifically, environmental heterogeneity in fitness optima, a form of balancing selection, suggests that selection pressures can vary over time and therefore selection can favor different levels of personality traits across environments (Buss, 2009; Glenn et al., 2011). Under certain contexts or environments, benefits of psychopathic traits may outweigh the costs, where prevalence of those traits increase as an adaptive strategy. Additional support finds that under certain conditions where frequency of these phenotypes remains relatively low within a population, certain traits or behaviors can become adaptive (Barr & Quinsey, 2004; Glenn et al., 2011; Mealey, 1995; Murphy & Stich, 2000). For example, if psychopathy is estimated to account for approximately 1% of the population, it suggests that it is relatively rare, allowing those with psychopathic tendencies to thrive in environments where most individuals work to cooperate and build trust in each other as they are less likely to run into others with similar parasitic lifestyles (Glenn et al., 2011). These findings taken together highlight the unique evolutionary advantages and disadvantages of psychopathic traits and their associations with variations in LH strategies, as well as highlights notable sex differences that occur. These differences, in part, may explain the development of psychopathy, the outward expression of these traits regarding antisocial tendencies and how they may vary by sex, as well as the role it plays on victimization.

## Psychopathy and Offending

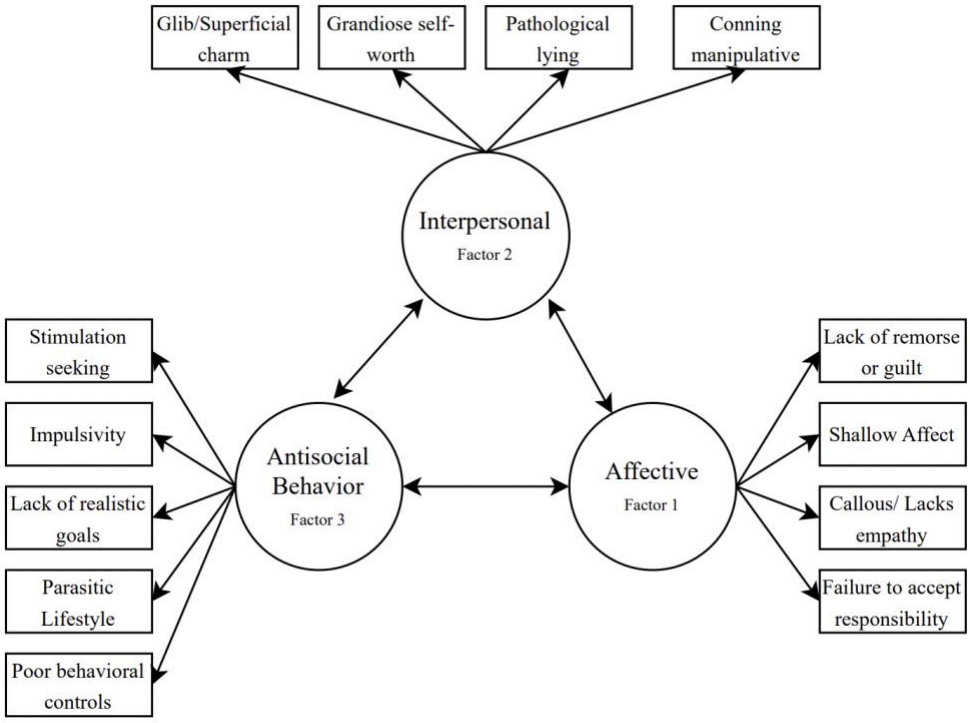
A substantial body of literature has identified psychopathy as one of the most important constructs in identifying factors that increase the likelihood of antisocial behavior (Salekin & Sewell, 1996). For example, a meta-analysis conducted by Salekin et al. (1996) found that psychopathy led to an increased risk of both criminal and violent offending among male offenders. In addition, psychopathic traits (e.g., callousness, manipulative behavior, lack of remorse/empathy, antisocial behaviors) predicted violence and sexual recidivism among incarcerated individuals (see also Beaver et al., 2017; Boccio & Beaver, 2018; Hawes et al., 2013). A more recent meta-analysis conducted by Geerlings et al. (2020) found that psychopathy did predict offending among youth samples; however, effect sizes varied among psychopathic traits. Therefore, it is possible that psychopathic traits may differentially affect cyber aggression, particularly as research finds support that these traits are implicated in cyber aggression (Buckels et al., 2014; Peterson & Densley, 2017; Shachaf & Hara, 2010). Furthermore, due to the personality and antisocial behavioral features associated with the clinical construct, research finds that these individuals are more likely to engage in risky behaviors, thus increasing the likelihood of experiencing victimization (Boccio & Beaver, 2021; Hong et al., 2019; Walter & Espelage, 2017; Welsh & Lavoie, 2012). As a result, psychopathy is believed to contribute to the victim–offender overlap which may appear in a host of antisocial behavioral outcomes (e.g., cyber aggression) and victimization experiences.

Throughout the literature, psychopathy has consistently been measured as a multi-dimensional construct, with previous literature identifying two-, three-, and four-factor models. Earlier work has identified two-factor models of primary (e.g., personality

characteristics including affective and interpersonal characteristics such as callousness and egocentricity) and secondary (e.g., behavioral features including a self-defeating lifestyle and antisocial behavior; Hare & Neumann, 2008; Levenson, Kiehl, & Fitzpatrick, 1995) psychopathic characteristics, while others have found support for three-factor (e.g., callousness, egocentricity, and antisocial behavior; Brinkley et al., 2008; Garofalo et al., 2018; Sellbom, 2011; Perez et al., 2022), as well as four factor models (e.g., affective, interpersonal, self-defeating lifestyle, and antisocial behavior; Hare & Neumann et al., 2008; Salekin et al., 2006; Williams et al., 2007) – both highlighting primary and secondary characteristics. This dissertation will utilize a three-factor model as it has been validated among college samples (Sellbom, 2011). Figure 1 on the next page presents the 3-factor item-based model of psychopathy.

**Figure 1**

*Three-Factor Model of Psychopathy*




*Note*. Figure 1 denotes the 3-factor model guided by Hare & Neumann's (2008) 4-factor model of interpersonal, affective, lifestyle, and antisocial behavioral dimensions. Lifestyle and antisocial behavioral facets were collapsed onto one factor to assess behavior.

Although psychopathy has traditionally been seen as maladaptive, it is possible that it also exists as an evolutionary adaptation that provides benefits to an individual's success. For example, Međedović et al. (2018) found that the affective dimension of psychopathy was related to decreased stress and anxiety, suggesting psychopathy may lead to emotional stability (see also Fanti et al., 2016; Hansen et al., 2013). Research suggests that higher affective scores may lead to protective factors against negative mental health effects by reducing anxiety- and stress-causing feelings due to decreased sensitivity (Međedović et al., 2018). As such, it is possible that different dimensions of

psychopathic traits may have an adaptive or maladaptive effect on an individual's behavioral outcomes, including interactions with others. For example, although fearlessness and boldness (associated with decreased anxiety and distress) were associated with greater psychopathy, so are grandiose manipulative traits, with the desire for control/status and the expression of aggression and meanness (i.e., associations with CU traits or affective deficits) (Fanti et al., 2016). This means that although adaptive to internalized states, the outward expression of behaviors for those who score high in psychopathy may result in aggressive tendencies with the desire to control others – qualities seen in traditional bullying. Therefore, it is possible that psychopathic traits may result in the likelihood an individual may engage in bullying and cyberbullying behavior.

While psychopathy is clinical in nature, researchers have developed measurement tools highlighting key factors identified within the construct. For example, Levenson et al. (1995) developed the Levenson Self-Report Psychopathy (LSRP) Scale to measure primary and secondary psychopathic characteristics among non-institutionalized samples. Although a larger proportion of individuals with identifiable psychopathic characteristics are found within incarcerated institutions (Coid et al., 2009; Hobson & Shines, 1998), psychopathy represents a set of personality and behavioral features that can be found among community and college samples as well (Brinkley et al., 2008; Garofalo et al., 2019; Levenson et al., 1995; Sellbom, 2011). Therefore, researching these characteristics and their effects among different sample is essential in understanding the role it plays in the experiences and decision-making, particularly when seeking to understand its role in adult victimization and its effects in online cyber aggression.

### *Sex Differences in the Development of Psychopathic Characteristics*

A substantial proportion of the psychopathy literature has largely focused on male samples with female samples being largely underrepresented. Research has also examined sex differences to determine how psychopathy, along with psychopathic traits, develop across sex. Not only does psychopathy appear to be more prevalent in males compared to females (Kreis & Cooke, 2011; Lee & Salekin, 2010), but evidence also suggests males and females differ in developmental courses when it comes to psychopathy, with boys expressing greater externalized symptoms such as outward displays of aggression and criminal tendencies and girls expressing greater internalized symptoms (Cale & Lilienfeld, 2002). When it comes to high interpersonal deficits, females were more prone to negative emotions compared to males, suggesting females may experience greater personal distress or maladaptive functioning while males may be more adaptive (Međedović et al., 2018). It is possible that males are more likely to exhibit fast life strategies and therefore, more prone to engage in certain behaviors when compared to females. Additionally, empirical support has been found when looking at heritable associations for males that are not as prominent in females. For example, Beaver et al. (2011) found associations between criminal biological fathers and psychopathic traits among male adoptees (offspring) only, suggesting that these personality traits may be passed from fathers to male offspring.

Further empirical support of sex differences has also been noted in the expression of the dimensions of psychopathic traits. Thomson and colleagues (2019) found significant sex differences between males and females and psychopathic traits where the interpersonal dimension of psychopathy predicted verbal aggression and antisocial

behavior predicted physical aggression. When identifying sex differences, the affective dimension (e.g., callousness) predicted physical aggression for women whereas the antisocial behavioral dimension predicted indirect aggression for men. Findings by Thomson and colleagues (2019) suggest that psychopathy is capturing similar features for males and females but also identifies differences when it comes to the outward expression of aggression and highlights unique risk factors by sex. This could in part explain why females are more likely to use indirect forms of aggression while males are more likely to use more direct forms of aggression when it comes to bullying behavior.

**Cyber Aggression and Traditional Cyberbullying**

Although increased use of SNS in recent years has created opportunities for more cyber aggression, research has also found support for a substantial drop in cyberbullying (Bacher-Hicks et al., 2022). These findings may be due to the limited in-person interactions associated with cyberbullying. For example, research finds that individuals who are engaging in cyberbullying are most likely engaging in traditional bullying behavior as well (Li, 2007), where cyberbullying may be a component of other in-person forms of antisocial behavior. Additionally, Li (2007) found that not only were individuals more likely to engage in both traditional and cyber forms of bullying, but also found they were more likely to experience cyber victimization as well. Those who engaged in bullying reported their behaviors as humorous, unaware that aggressive behaviors were considered bullying (Alsawalqa, 2021), highlighting a disconnect between the harm they cause others. With a shift to online platforms following the COVID-19 pandemic, opportunities to engage in traditional forms of bullying decreased as campuses at all levels closed. As we transitioned back to in-person formats, bullying returned to levels

that existed before the pandemic (Bacher-Hicks et al., 2022). These differences may reflect transitions in how the outward expression of antisocial behaviors took place (e.g., in-person to online formats).

Researchers suspect that anonymity and cross-border connectedness are in part responsible for the decision to engage in cyber aggression (Rosli et al., 2021). Individuals who engage in cyberbullying often act under anonymous pretenses and prey on those from all over the world, affecting one's ability to interact with others through technology (Barlett et al., 2021; Slonje & Smith, 2008). Those who score high in psychopathic traits may be able to thrive under these conditions. These findings provide further evidence of the overlap between traditional antisocial behaviors and how they may manifest into online behaviors as well as how personality should be assessed when understanding the role of personality traits and online interactions.

**Psychopathic Traits and Cyber Aggression**

A growing body of research has only recently started to investigate the role of psychopathic traits on cyber aggression, specifically cyberbullying (Alavi et al., 2022; Azami & Taremian, 2021; Ciucci et al., 2014; Fanti et al., 2012; Goodboy & Martin, 2015; Hoareau et al., 2019; López-Larrañaga & Orue, 2019; Orue & Calvete, 2016); however, many of these samples consist of youth samples. Goodboy and Martin (2015) found that the Dark Triad (i.e., psychopathy, Machiavellianism, and Narcissism) was positively related to cyberbullying among adult university students; however, psychopathy in particular remained a unique predictor, suggesting it may constitute personality features that lead to greater cyberbullying. This is supported by traditional bullying literature where psychopathy was found to be a strong correlate (Baughman et

al., 2012). Findings from Alavi et al. (2022) also revealed that interpersonal deficits (i.e., narcissism) were positively related to cyber aggression among adults.

Recent literature has found empirical support that cyber aggressors may display psychopathic characteristics (e.g., manipulative, callous, narcissistic) (Peterson & Densley, 2017). For example, previous studies have found that psychopathic personality characteristics were found in online "trolling" (i.e., behaving in a social setting that is disruptive or destructive online with no clear reason or purpose) and found that almost 6% of U.S. residents enjoyed trolling behavior (Buckels et al., 2014). These individuals specifically scored hire in Machiavellian, sadism, and psychopathy. A separate study conducted by Shachaf and Hara (2010) found that those who enjoyed more threatening forms of cyber aggression were motivated by revenge, boredom, attention-seeking, and took pleasure in causing harm, reflecting characteristics of psychopathy and sadism. These findings implicate the role of psychopathic traits in cyber aggression and suggest that the stability of these traits may manifest into online formats.

Previous literature has also found that psychopathic traits are related to cyber aggression both longitudinally and cross-sectionally (Ciucci et al., 2013; Fanti et al., 2012), suggesting psychopathic characteristics, specifically CU traits, may remain a stable predictor of cyber aggression. CU traits were associated with behavioral problems, bullying, and cyberbullying (Ciucci et al., 2014; Fange et al., 2020; Fanti et al., 2012; López-Larrañaga & Orue, 2019), particularly when individuals were more impulsive (López-Larrañaga & Orue, 2019). Furthermore, Wang (2022) identified certain personality characteristics as being a contributing factor to adult online cyber aggression where the perception of distributive injustice (i.e., unfairness in outcomes) and social

dominance predicted the likelihood of adults engaging in cyber aggression. When it comes to personality traits, Hoareau et al. (2019) found that certain psychopathic personality characteristics increase the risk of cyberbullying among adolescents; however, there were no observed differences between psychopathic traits and cyberbullying by sex. The authors suggest teachers should monitor both social and cognitive skills in a way that helps students recognize when others are in distress.

### *Differences in Cyber Aggression by Sex*

Researchers have been increasingly interested in understanding the relationship between cyber aggression and sex. Traditional bullying literature has largely focused on physical forms of aggressive behaviors (e.g., hitting, punching, and pushing; Olweus, 1994), with males being more likely to engage in bullying and females being more likely to experience victimization (Espelange et al., 2004; Olweus, 1994; Scheithauer et al., 2006). However, there is evidence to suggest that although females may not engage in traditional forms of bullying to the extent that males do, it is possible that they may be more likely to turn toward other forms of bullying behavior (e.g., cyberbullying) as a more subtle and manipulative form of bullying (Connell et al., 2014; Crick & Nelson, 2002; García-Fernández et al., 2022; Olweus, 1995; Smith et al., 2002). For example, Connell and colleagues (2014) reported that girls were more likely to engage in cyberbullying compared to boys. Less overt, indirect forms of bullying may include spreading rumors or gossiping (Smith et al., 2002), and more recently, cyberbullying (Connell et al., 2014; García-Fernández et al., 2022). However, recent literature also finds support that males engage in cyberbullying at higher rates than females (Alsawalqa, 2021; Hoareau et al., 2017; Li, 2007; Wang et al., 2009). Mixed findings suggest greater

exploration into sex differences when it comes to online bullying behavior, particularly when looking at adult samples in settings with a high proportion of cyber aggression (e.g., college students).

Wyckoff et al. (2019) proposed that sex differences in mating preferences and competition strategies could be applied to cyber aggression. Competition can occur in various forms where an individual may utilize indirect (relational) aggression or overt (direct) aggression (e.g., physical bullying). Indirect aggression includes gossiping and ostracism (see Archer & Coyne, 2005). Currently, literature on cyber aggression remains mixed regarding sex differences as well as the specific content surrounding sex differences (e.g., how males and females are being targeted online), which Wyckoff et al. (2019) suggests may be in part due to the limited literature that currently exists. The authors state that cyber aggression may be viewed differently between men and women, where women may be targeted more often for their attractiveness while men may be targeted more often for their limited financial resources or prowess. They also suggest that women may view cyberbullying as more harmful than men do. In line with this thinking, Brody and Vangelisti (2017) found that women were more likely to experience cyber aggression when it came to their physical appearance while men were more likely to be attacked for their skills or abilities. If cyberbullying is an extension of traits associated with traditional bullying, then it is possible that individuals are using the same mechanisms that lead to cyberbullying behavior. If we incorporate differences in psychopathic traits, it is possible that sex differences exist as well.

When it comes to the cyber aggression literature, three things should be noted. First, research measuring psychopathy in cyber aggression and cyberbullying literature

largely relies on Dark Triad measures, and generally finds support in the role of psychopathy and bullying/cyberbullying (Alavi et al., 2022; Baughman et al., 2012; Buckels et al., 2014; Goodboy & Martin, 2015; Hoareau et al., 2017; Shachaf & Hara, 2010); however, if psychopathy continues to be a stronger correlate of cyber aggression, then research needs to focus more on psychopathic traits rather than the Dark Triad to better understand what traits are influencing the behavior. Second, a large body of the bullying and cyberbullying literature focuses on child and adolescent samples (Connell et al., 2014; García-Fernández et al., 2022; Lee et al., 2022; Li, 2006; Šincek, 2014; Smith et al., 2002), with fewer assessing cyberbullying among adult samples (e.g., Fang et al., 2020; Giumetti & Kowalski, 2022; Musharraf & Anis-ul-Haque, 2018; Wang, 2022; Wyckoff et al., 2019), and even less looking at university students and the role of psychopathic traits (Goodboy & Martin, 2015; Krienert & Walsh, 2019). This identifies a major limitation in the literature, especially since research has reported that between 40% to 52% of college students may be involved in at least one cyber aggressive incident in the past year (Gibb & Devereux, 2014; Musharraf & Anis-ul-Haque, 2018). Currently, more research is needed to understand how personality traits affect cyber aggression behavior as we have seen increased usage of online platforms, including at the university level and among the workforce. Lastly, literature surrounding sex differences in cyber aggression, especially among adults, remains limited, and therefore, more research is needed to understand how personality and sex differences play a role in the development and stability of cyber aggression, particularly among college samples as prevalence of SNS is high. Understanding individual differences that impact cyberbullying can help drive policies and programs at the university-level to help students recognize negative

online behaviors, decrease cyber aggression, and improve overall mental health. Additionally, identifying traits that increase the likelihood of risk could reduce cyber aggression and foster prosocial interactions that increase group cohesion. Specifically, identifying psychopathic traits that increase the odds of cyber aggression could help tailer programs to combat the outcomes of these traits.

**Psychopathy and Victimization**

Despite the vast amount of literature examining the association between psychopathy and offending, only a handful of studies have looked at its association with victimization. Numerous studies, however, have provided substantial empirical support between criminal lifestyles and likelihood of experiencing victimization (e.g., Broidy et al., 2006; Jennings et al., 2010; Jennings et al., 2012; Lauritsen & Laub, 2007; Piquero et al., 2005). It appears that individuals who offend and individuals who experience victimization are not two distinct groups but rather often alternate between groups (Berg & Loeber, 2011; Broidy et al., 2006). This means that individual differences among personality traits may influence the likelihood of offending as well as the likelihood of experiencing victimization.

Recent work conducted by Weulen Kranenbarg et al. (2019) found associations between cyber-offending and cyber-victimization, where low self-control and routine activities in part explained the overlap between offending and victimization, showing similar patterns between traditional and online offending behavior. It may be that individuals who engage in risk-taking may be more impulsive and more likely to respond in a way that increases the likelihood of victimization. For example, certain personality traits, particularly impulsivity, were found to contribute to the victim–offender overlap

for bullying (Walter & Espelage, 2017). This is why recent literature has started to investigate the role of psychopathy as these traits may in part explain why those who offend also experience victimization, alternating between victim and offender. Ybarra and colleagues (2006) found that individuals who have social problems or interpersonal deficits and aggressive tendencies may be at a greater risk of experiencing online harassment. This suggests that interpersonal deficits and antisocial tendencies may in part lead to victimization, highlighting the unique relationships between personality, behavior, and victimization. Because psychopathy has been linked to sensation seeking, risk-taking, and impulsivity, it is possible that psychopathy itself may contribute to this overlap as well. Recent literature has found support for this, where psychopathy was positively correlated with the likelihood of experiencing victimization (Beaver, Al-Ghamdi et al., 2016; Boccio & Beaver, 2021; Narvey, 2020), with research only beginning to acknowledge sex differences in this relationship (e.g., Narvey, 2020).

It may be that traits associated with negative outcomes contribute to the etiology of victimization, interfering with socialization and behavioral outcomes (Beaver, Nedelec et al., 2016). Using the National Longitudinal Study of Adolescent to Adult Health (Add Health) and the MacArthur Violence Risk Assessment Study, Daigle and Teasdale (2018) found that those who scored higher in psychopathic traits were at a greater risk for reoccurring victimization. Beaver, Al-Ghamdi et al. (2016) found similar findings among a separate youth sample, where youth who scored higher in psychopathy using the LSRP were more likely to be victimized compared to those who scored lower. Using the Add Health data, Boccio and Beaver (2021) found additional support between the association between psychopathy and victimization; however, the study only accounted for a

dichotomous item of victimization where 0 = *no* and 1 = *yes* for various victimization types. This means that we are unable to parse out which victimization experiences are linked with psychopathic traits, yet sexual victimization and property damage are two distinct, and very different, victimization experiences. More research is needed to understand how psychopathic traits predict victimization, and if it is a predictor, how it may vary by victimization type. Additionally, Boccio and Beaver used sex as a control variable despite a large body of research finding differences by sex. Sex differences between psychopathy and victimization should be further explored to identify unique risks that may occur across sex. For example, Narvey (2020) found that males who scored high in psychopathy were more likely to experience victimization compared to females who scored high in psychopathy, suggesting differences may occur between sex that needs further analysis. Similar to Boccio and Beaver (2021), Narvey (2020) also measured victimization as a dichotomous item but failed to identify differences by victimization type. Finally, Fanti and Kimonis (2013) identified psychopathic traits as influencing offending and victimization, with differences occurring between traits and their role within the association between the two. Specifically, CU traits predicted bullying behavior while impulsivity predicted victimization; however, these effects were not explored under the context of cyber aggression.

If recent literature is finding that prior victimization plays a role in the likelihood of offending, then understanding the role of victimization in cyber aggression should be further explored. This is especially important given the high rates of victimization reported among college students, with an estimated 20-25% of women and roughly 12.5% of men reporting prior sexual victimization (Cantor et al., 2015; Fisher et al.,

2000; Mellins et al., 2017). Additionally, understanding the role of psychopathy on victimization should also be investigated, particularly when looking at different victimization types (i.e., poly victimization), which currently remains largely understudied. Understanding the role of psychopathy in victimization is relatively new, yet research suggests that it may play a role in the vulnerability to certain victimization experiences. Therefore, this study will identify the relations of victimization types to see if certain psychopathic traits play a greater role on sexual victimization (e.g., sexual harassment or sexual assault) or general victimization (e.g., property damage, threat, or physical assault). Intervention practices could then build programs to target different victimization experiences that increase the likelihood of engaging in antisocial behaviors such as cognitive-behavioral therapy (CBT) and cognitive-behavioral skills building (CBSB) to target mental health concerns (Hutson et al., 2021). Furthermore, understanding the role of psychopathy may help programs target individual psychopathic traits that lead to increased victimization risk to improve overall functioning and reduce antisocial behavior.

**The Current Study**

Despite the extensive body of literature exploring the role of psychopathy in offending, more research is needed to understand its association between victimization and cyber aggression. Research remains largely limited in (1) the role of psychopathic traits and its association with antisocial behavior in the form of cyber aggression, (2) how psychopathic traits may be related to various forms of victimization, and (3) how sex may play a role in the association between psychopathic traits, cyber aggression, and victimization. While research assessing the role of psychopathy and victimization has

been recently investigated (see Boccio & Beaver, 2021; Fanti & Kimonis, 2012; Narvey, 2020), research fails to identify differences between victimization types, yet general and sexual victimization experiences can vary (e.g., experiencing a sexual assault compared to having your property damaged or destroyed), where certain offenses may leave different, lasting impacts. As such, this dissertation will assess differences between sexual and general victimization by sex to assess possible differences in the dimensions of psychopathy through callousness, egocentricity, and antisocial behavior. While research finds there to be a possible association between psychopathy and victimization, further investigation is needed to see if certain psychopathic traits are influencing the association in order to identify possible risk to victimization or protective factors that reduce the likelihood of experiencing various types of victimization experiences. Findings could help guide research in intervention practices to lesson effects of victimization as a result of individual differences in personality and the expression of psychopathic traits.

Given the importance of psychopathy and its association with antisocial and criminal behavior, as well as the recent, but limited body of literature that finds an association with victimization (Boccio & Beaver, 2021; Fanti & Kimonis, 2012; Narvey, 2020), more research is needed to understand how sex factors into victimization experiences and how psychopathic characteristics affect alternative forms of antisocial behavior (i.e., cyber aggression). This study seeks to explore the effects of psychopathic characteristics using data collected post-COVID-19 to assess the role of psychopathic traits on cyber aggression and victimization, examine associations between victimization and the likelihood of cyber aggression to assess relations between victimization and

antisocial behavior, and investigate the role of psychopathic traits on cyber aggression and victimization by sex through sex-stratified models to contribute to the growing body of evidence on sex differences in the effects of psychopathic characteristics.

***Research Questions***

RQ 1. Are there significant differences between males and females in self-reported psychopathic traits, victimization experiences, and levels of cyber aggression?

RQ 2.1. Do psychopathic traits significantly predict cyber aggression?

RQ 2.2. Does sex moderate relations between psychopathic traits and cyber aggression?

RQ 4. Will individuals who engage in cyber aggression be more likely to report prior victimization?

RQ 5.1. Do psychopathic traits significantly predict sexual victimization?

RQ 5.2. Does sex moderate relations between psychopathic traits and sexual victimization?

RQ 6.1. Do psychopathic traits significantly predict general victimization?

RQ 6.2. Does sex moderate relations between psychopathic traits and general victimization?

RQ 7. Will males be more likely to report psychopathic traits with a history of victimization?

RQ 8. Will females be more likely to report psychopathic traits with a history of victimization?

***Hypotheses***

H.1. Males will score higher in psychopathic traits, report greater cyber aggression, and report greater general victimization while females will report greater sexual victimization.

H.2. Psychopathic traits will positively predict cyber aggression.

H.3. Sex will moderate the association between psychopathic traits and cyber aggression, particularly for males.

H.4. Individuals who report cyber aggression will be more likely to report psychopathic traits and prior victimization.

H.5. Psychopathic traits will positively predict sexual victimization.

H.6. Sex will moderate the association between psychopathic traits and sexual victimization, particularly for females.

H.7. Psychopathic traits will positively predict general victimization.

H.8. Sex will moderate the association between psychopathic traits and general victimization, particularly for males.

H.9. Psychopathic traits will positively predict sexual and general victimization for males.

H.10. Psychopathic traits will positively predict sexual and general victimization for females.

# CHAPTER III

## Methodology

### Data

Data used for this dissertation were drawn from a cross-sectional survey on undergraduate students collected during the Spring and Fall semester in 2022 at a four-year southwestern university. Twenty-four instructors were requested through email to administer an online survey in class or through an online portal. Approximately 80% of instructors agreed to administer the survey in their classes. Students who were enrolled in introductory or general criminal justice courses (e.g., Criminology, Introduction to Criminal Justice Systems, and Introduction to Methods of Research) were invited to complete an online survey via Qualtrics. Extra credit was provided for participation at the discretion of the instructors. Participants were notified that all survey responses would be anonymous and would take approximately 45-60 minutes to complete. Participants who provided consent to participate in the survey were notified that questions would focus on understanding how certain characteristics increase or decrease the likelihood of certain behavioral outcomes. Survey questionnaire items included personality assessments and asked about prior experiences, behaviors, family history, and relevant demographic information. The total sample size consisted of 522 participants; however, students who failed to report demographic information were removed from the study, reducing the sample to 330 participants. The final analytic sample ($N$ = 330) comprised 70.3% female ($N$ = 232) and 29.70% male ($N$ = 98) where 50.91% of the participants identified as White, 31.52% Hispanic, and 17.58% as Other race. The average age of the participants was 20.02 years of age ($SD$ = 3.09).

A power analysis was conducted using G*Power 3.1 software to calculate the number of participants based on a power of at least 0.80 while accounting for 9 predictors to assess effect size ($f^2$). Power analysis revealed that the total sample size ($n$ = 330) was sufficient to detect power at $f^2$ = 0.05. When assessing differences in the sample by sex, power analysis revealed that the female sample size ($n$ = 232) was sufficient to detect power at $f^2$ = 0.075 and for males ($n$ = 98) at $f^2$ = .18. While the reported differences in sample sizes between males and females also show differences in the ability to detect power, particularly for males as the sample size is smaller, this could result in the failure to find an effect and conclude that associations may not exist when they do. For example, previous research has found relatively small effect sizes between psychopathy and cyber aggression ranging from $b$ = 1.12 (Birke, 2022) to β = .36 (Zhang & Zhao, 2020) and varying effect sizes between psychopathic traits and victimization that are statistically significant but substantively small, ranging from $b$ = 0.02 or $b$ = 0.03 (Beaver, Al-Ghamdi et al., 2016; Boccio & Beaver, 2021) to β = .21 (Cooke et al., 2022) when using the LSRP. These findings provide evidence that although the male sample size is small, results within this study may still produce effect sizes with enough power to be captured within the sample and therefore sufficient enough to meet requirements to stratify by sex.

**Missing Data**

Variables and demographic information used for this dissertation consisted of about 30% missing data. As such, several steps were taken to assess missingness within the data. First, Little's Missing Completely at Random (MCAR) test was conducted in Stata 15.1 to assess whether data were missing completely at random (Little, 1988). Results from the MCAR test were significant ($\chi^2$ (67, $N$ = 472) = 156.40, $p$ < .001),

indicating that the data were not missing completely at random. Next, bivariate analyses were conducted to determine nonresponse bias for all variables within the study (Allison, 2002). Table 1 provides the results for differences between responses and nonresponses within the data. Results revealed that there were no significant differences between survey responses with missing and non-missing data on all dependent and independent variables, suggesting there were no issues regarding nonresponse bias. Lastly, relevant demographic variables within the sample were compared to the demographics of the university where the sample was collected. Similarities between the sample and reported demographics of the population through an online data source (Data USA) were used to compare demographics by race/Ethnicity (White = 54.8%) and gender (Female = 64.8%) at the university (reported in 2020), which remained moderately representative. These results suggest similarities exist between the data captured and those reported among the population. Given these findings, list-wise deletion was used, resulting in a final analytic sample size of 330 participants.

**Table 1**

*Summary of Nonresponse Bias for the Total Sample*

| Variables | Statistical Test | Sig |
|---|---|---|
| Cyber Aggression | *t*-test | No |
| Sexual Victimization | Chi-Square | No |
| General Victimization | Chi-Square | No |
| Callousness | *t*-test | No |
| Egocentricity | *t*-test | No |
| Antisocial Behavior | *t*-test | No |
| Number of Sexual Partners | t-test | No |
| Sex | Chi-Square | No |
| Age | *t*-test | No |
| White | Chi-Square | No |

*Note.* $p < .05$.

**Measures**

Table 2 below provides the descriptive statistics for all measures used in this dissertation and relevant *t*-tests and chi-square tests to assess significant sex differences between key variables. Measures for internal consistency and reliability were measured using the omega (ω) coefficient (see McDonald, 1999) and Cronbach's alpha (α).

**Table 2**

*Descriptive Statistics for the Analytic Sample (N = 330)*

| | Mean (%) | *SD* | Range | t-test / $\chi^2$ (*df*) [sig] |
|---|---|---|---|---|
| Cyber Aggression | 1.09 | 2.78 | 0 – 20 | 5.48 (328) ** |
| Male | 2.33 | 4.23 | 0 – 21 | |
| Female | 0.57 | 1.59 | 0 – 12 | |
| Sexual Victimization | 41.82% | – | 0 – 1 | 26.26 (1) ** |
| Male | 20.41% | – | 0 – 1 | |
| Female | 50.86% | – | 0 – 1 | |
| General Victimization | 35.15% | – | 0 – 1 | 2.65 (1) |
| Male | 28.57% | – | 0 – 1 | |
| Female | 37.93% | – | 0 – 1 | |
| Callousness | 3.05 | 2.31 | 0 – 10 | 3.98 (328) ** |
| Male | 3.82 | 2.32 | 0 – 10 | |
| Female | 2.73 | 2.23 | 0 – 10 | |
| Egocentricity | 9.13 | 4.23 | 1 – 25 | 2.05 (328) * |
| Male | 9.86 | 4.32 | 1 – 20 | |
| Female | 8.82 | 4.16 | 2 – 25 | |
| Antisocial Behavior | 5.90 | 2.99 | 0 – 14 | -1.23 (328) |
| Male | 5.59 | 2.79 | 0 – 12 | |
| Female | 6.03 | 3.07 | 0 – 14 | |
| Number of Sexual Partners | 4.01 | 6.51 | 0 – 38 | 0.53 (328) |
| Male | 4.31 | 7.87 | 0 – 38 | |
| Female | 3.89 | 5.86 | 0 – 29 | |
| Male[0] | 29.70% | – | 0 – 1 | |
| Age | 20.02 | 3.09 | 18 – 42 | |
| White[0] | 50.91% | – | 0 – 1 | |

[0] Reference group for non-stratified analyses.

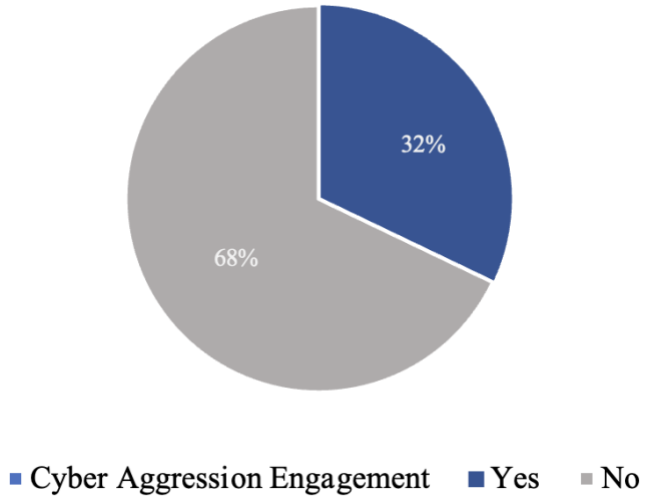
*$p < .05$. ** $p < .01$.

***Cyber Aggression***

Cyber aggression was measured by 6 items ($\alpha$ = .87) addressing online interactions and behaviors. Items asked participants if they have ever made rude or mean comments to others online, spread rumors, or made unwanted sexual requests or comments to others online. For a list of all items, see Appendix A. Items were rated on a 6-point Likert scale (0 = *Never*, 1 = *Once or twice a year*, 2 = *A few times per year*, 3 = *Once or twice a month*, 4 = *Once or twice a week*, 5 = *Every day/Almost every day*) where greater scores corresponded to greater rates of cyber aggression (*M* = 1.09, *SD* = 2.78.). Items were then placed onto an additive scale to assess cyber aggression among all items. Figure 2 provides the proportion of those who reported at least one type of act of cyber aggression for the entire sample and Figure 3 provided the proportion of those who reported at least one type of act of cyber aggression by sex.

**Figure 2**

*Proportion of Cyber Aggression Engagement for the Full Sample*

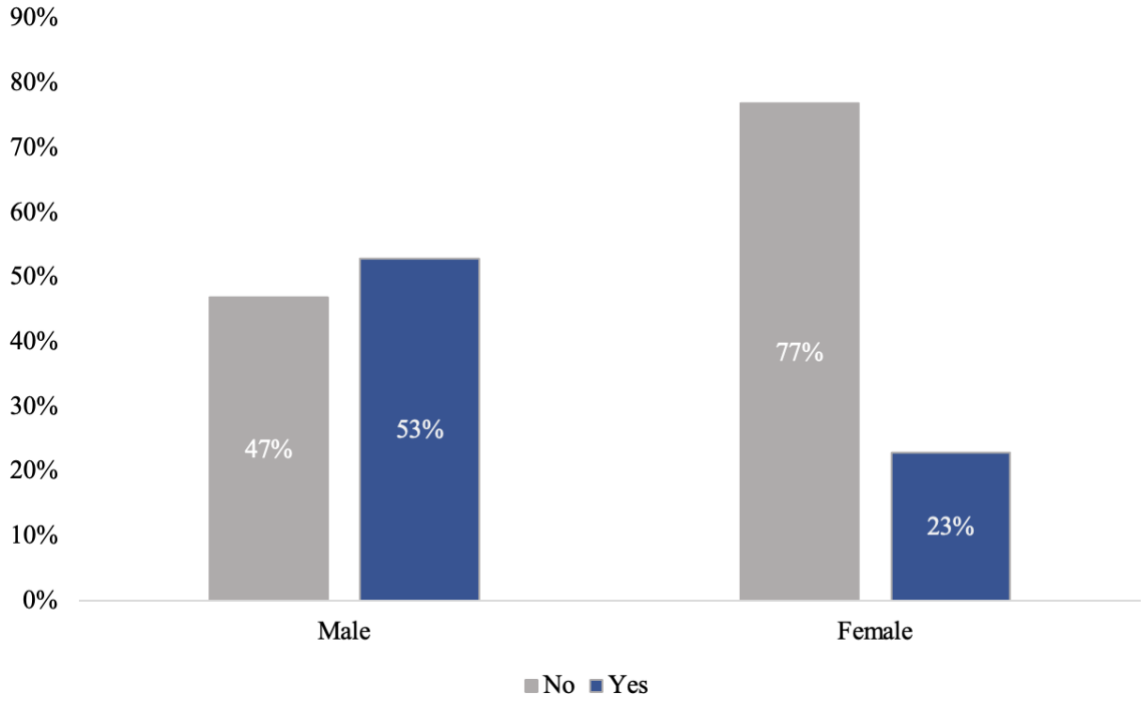



*Note*. Figure 2 provides the total proportion of those who engaged in cyber aggression over the past year. Reports of cyber aggression for the entire sample was 32%, lower than what has

previously been reported among college students (see Gibb & Devereux, 2014; Musharraf & Anis-ul-Haque, 2018).

**Figure 3**

*Proportion of Cyber Aggression Engagement by Sex*




*Note*. Figure 3 provides the total proportion of those who engaged in cyber aggression over the past year by sex. Reports of cyber aggression was 53% for males and 23% for females, suggesting males are more than twice as likely to engage in cyber aggression.

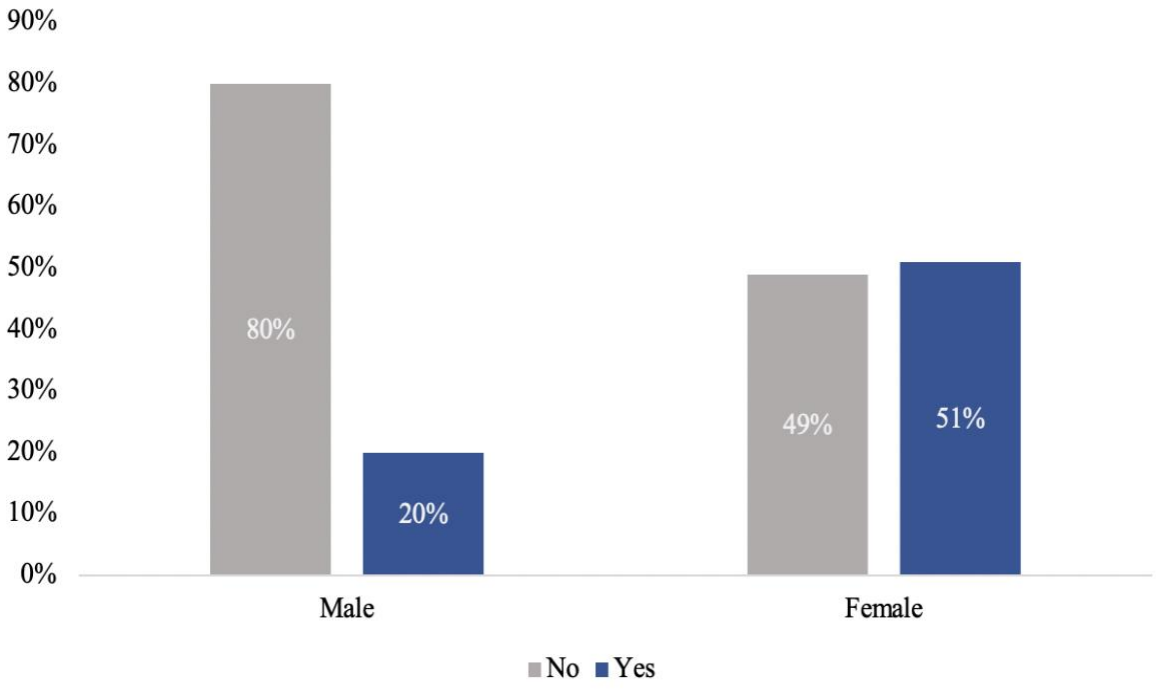
### *Prior Victimization*

Prior victimization was measured using 6 items that addressed a host of victimization experiences including physical assault, sexual assault, family violence, threats, and property damage ($\alpha$ = .72, $\omega$ = .73). For a detailed list of these items, see Appendix B. Item responses were categorical responses (0 = *No*, 1 = *Yes*, 2 = *Yes, but not in the past year*), which were then collapsed into a dichotomous measure (0 = *No*, 1 = *Yes*) where any participant who reported prior victimization at any point in time were

categorized as a “Yes” response to reflect a history of victimization. Items were then separated into two types of victimization experiences of sexual and general victimization. The two dichotomous items measuring sexual victimization were then collapsed where anyone who reported at least one type of prior sexual victimization experience were coded as “Yes”, or as experiencing prior sexual victimization (Yes = 41.82%, No = 58.18%). The 4 items that measured general victimization were also collapsed, where any participant who reported at least one prior general victimization experience (i.e., had been previously threatened with physical assault, were physically assaulted, experienced family violence, or intentionally had their property damaged on purpose), were reported as a “Yes” response, or as experiencing prior general victimization (Yes = 35.15%, No = 64.85%). Figure 4 and Figure 5 provide the rates of sexual and general victimization by sex, respectively.

**Figure 4**

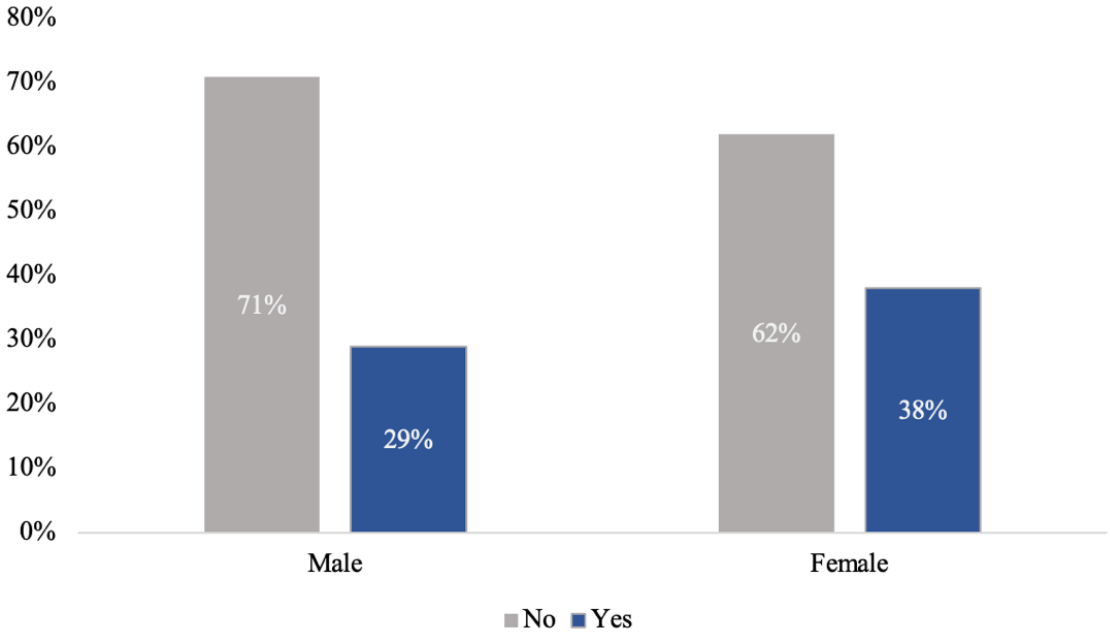
*Proportion of the Sample who Experienced Sexual Victimization by Sex*



*Note*. Figure 4 provides the total proportion of those who reported a history of sexual victimization by sex. Females were more than twice as likely to report sexual victimization compared to males.

**Figure 5**

*Proportion of the Sample who Experienced General Victimization by Sex*




*Note*. Figure 4 provides the total proportion of those who reported a history of general victimization by sex. General victimization includes property damage, theft, and assault. Approximately 29% of males and 38% of females reported general victimization within the sample.

### *Psychopathic Traits*

Psychopathic traits were measured using the Levenson Self-Report Psychopathy (LSRP) scale. Although the LSRP was originally designed as a 2-facor model, (see Levenson et al., 1995), more recent literature has found support for a more reliable 3-factor model to capture dimension of psychopathy through callousness ($\alpha$ = .56, $\omega$ = .59), egocentricity ($\alpha$ = .71, $\omega$ = .72), and antisocial behavior ($\alpha$ = .67, $\omega$ = .67) (Brinkley et

al., 2008; Garofalo et al., 2018; Sellbom, 2011). Of the original 26 items, the LSRP uses 19 of these items (viewable in Appendix C) for the 3-factor model where 10 items measure egocentricity ($M$ = 9.13, $SD$ = 4.23), 4 items measure callousness ($M$ = 3.05, $SD$ = 2.31), and 5 items measure antisocial behavior ($M$ = 5.90, $SD$ = 2.99). Each factor was measured using a 4-point Likert scale (0 = *Strongly disagree*, 1 = *Disagree somewhat*, 2 = *Agree somewhat*, 3 = *Strongly agree*) and then placed onto an additive scale where greater scores corresponded with greater psychopathic characteristics.

### *Control Variables*

Demographic variables included sex (0 = male, 1 = female) and age ($M$ = 20.02, $SD$ = 3.09, *Range* = 18 – 42). Race was dichotomized due to the large proportion of white students (>50%) (0 = White, 1 = Person of color). Prior literature has found that individuals who score high in psychopathy are more likely to report a greater number of sexual partners (Cale & Lilienfeld, 2002; Figueredo et al., 2006; Hare & Neumann, 2008) which may also contribute to the likelihood of victimization (Dane et al., 2017); therefore, the number of sexual partners was included as a control variable for analysis as well ($M$ = 4.01, $SD$ = 6.51, *Range* = 0 – 38).

## Analytic Strategy

Analyses were conducted in 4 stages. First, to address research question 1, *t*-tests and chi-square tests were conducted to assess sex differences between males and females on all dependent and independent variables. Pearson correlation coefficients were then conducted to identify significant correlations between theoretically relevant variables and then stratified by sex.

Next, due to the dispersion and skewness of the dependent count variable of cyber aggression, a negative binomial regression analysis was conducted to identify associations between the three dimensions of psychopathy on cyber aggression to answer research question 2.1. To address research question 2.2, interaction effects were conducted to assess sex as a moderator between psychopathic traits and cyber aggression to see if sex affects the associations between variables as psychopathy has traditionally been considered a male-dominated trait (Coid et al., 2009; de Vogel & Lancel, 2016; Kreis & Cooke, 2011; Hoareau et al., 2017; Lee & Salekin, 2010). Next, a separate negative binomial regression analysis was conducted to assess if psychopathic traits, general victimization, and sexual victimization predict the likelihood of an individual being more likely to engage in cyber aggression to answer research question 3.

To answer research question 5.1. and 6.1., two logistic regressions were conducted to assess the role of psychopathic characteristics on sexual victimization and general victimization, separately. If sex is determined to be a significant predictor, then logistic regression analyses for sexual victimization and general victimization will then be stratified by sex to identify possible sex differences (research question 7 and 8). Finally, to address research questions 5.2. and 6.2., interaction effects were conducted to identify the role of sex as a moderator between psychopathic characteristics and sexual victimization and general victimization separately in order to assess individual predictors of psychopathic traits by sex. Moderation effects of sex when assessing psychopathic characteristics may help identify differences between males and females that increase or decrease the likelihood of experiencing victimization.

# CHAPTER IV

## Results

Table 2 above presents the chi-square and *t*-test results between males and females. On average, males scored significantly higher in callousness ($t = 3.98$; $p < .001$) and egocentricity ($t = 2.04$; $p = .04$); however, no significant differences were observed for antisocial behavior by sex within the sample ($t = -1.23$; $p = .22$). Males were also more likely to engage in cyber aggression compared to females ($t = 5.48$; $p < .001$). Females were more likely to report prior sexual victimization ($\chi^2$ (1, $N = 330$) = 26.26, $p < .001$).) compared to males, with no observed differences between males and females for general victimization ($\chi^2$ (1, $N = 330$) = 2.65, $p = .10$).

Table 3 below presents the bivariate correlations for all variables. Cyber aggression was positively correlated with all three dimensions of psychopathic traits including callousness ($r = .15$, $p < .01$), egocentricity ($r = .20$, $p < .01$), and antisocial behavior ($r = .20$, $p < .01$). Cyber aggression was also positively correlated with general victimization ($r = .18$, $p < .01$) and the number of sexual partners ($r = .12$, $p < .05$). Cyber aggression was negatively correlated with sex ($r = -.29$, $p < .01$). Callousness was positively correlated with egocentricity ($r = .41$, $p < .01$) and egocentricity was positively correlated with antisocial behavior ($r = .36$, $p < .05$). Callousness ($r = -.21$, $p < .01$) and egocentricity ($r = -.11$, $p < .05$) were both negatively correlated with sex. Sexual victimization was positively correlated with general victimization ($r = .35$, $p < .01$), sex ($r = .28$, $p < .01$), and the number of sexual partners ($r = .25$, $p < .01$). Finally, general victimization was positively correlated with antisocial behavior ($r = .14$, $p < .01$) for the entire sample.

**Table 3**

*Bivariate Correlations for All Variables (N = 330)*

| | 1. | 2. | 3. | 4. | 5. | 6. | 7. | 8. | 9. | 10. |
|---|---|---|---|---|---|---|---|---|---|---|
| 1. Cyber Aggression | - | - | - | - | - | - | - | - | - | - |
| 2. Sexual Victimization | .01 | - | - | - | - | - | - | - | - | - |
| 3. General Victimization | .18** | .35** | - | - | - | - | - | - | - | - |
| 4. Callousness | .15** | -.07 | -.03 | - | - | - | - | - | - | - |
| 5. Egocentricity | .20** | -.03 | -.07 | .41** | - | - | - | - | - | - |
| 6. Antisocial behavior | .20** | .10 | .14** | .06 | .36** | - | - | - | - | - |
| 7. Sex | -.29** | .28** | .09 | -.21** | -.11* | .07 | - | - | - | - |
| 8. Age | -.01 | -.09 | .002 | .02 | -.02 | .005 | -.06 | - | - | - |
| 9. White | -.10 | -.17** | .01 | .07 | .09 | -.03 | .13* | -.07 | - | - |
| 10. Number of Sexual Partners | .12* | .25** | .19** | .05 | .13* | .18** | -.03 | .45** | -.04 | - |

*$p < .05$. **$p < .01$.

Results from the bivariate correlations for the total sample revealed significant sex differences and therefore, bivariate correlations were assessed by sex. For males, only antisocial behavior was positively correlated with cyber aggression ($r = .30$, $p < .01$) among all psychopathic traits. Additionally, sexual victimization was negatively correlated with antisocial behavior ($r = -.25$, $p < .05$) while general victimization was positively correlated with antisocial behavior ($r = .22$, $p < .05$) and cyber aggression ($r = .35$, $p < .05$). Furthermore, greater number of sexual partners was positively correlated with cyber aggression ($r = .22$, $p < .05$), sexual victimization ($r = .20$, $p < .05$), and antisocial behavior ($r = .24$, $p < .05$).

For females, cyber aggression was positively correlated with egocentricity ($r = .19$, $p < .01$), antisocial behavior ($r = .22$, $p < .01$), sexual victimization ($r = .17$, $p < .05$), and general victimization ($r = .15$, $p < .05$). Sexual victimization was positively correlated with antisocial behavior ($r = .19$, $p < .01$), general victimization ($r = .38$, $p < .01$), and the greater numbers of sexual partners ($r = .32$, $p < .01$). The number of sexual partners was also positively correlated with antisocial behavior ($r = .16$, $p < .05$) and general victimization ($r = .21$, $p < .01$). All bivariate correlations stratified by sex can be viewed in Table 4 below.

**Table 4**

*Bivariate Correlations for All Variables by Sex (N = 330)*

| | 1. | 2. | 3. | 4. | 5. | 6. | 7. | 8. | 9. |
|---|---|---|---|---|---|---|---|---|---|
| 1. Cyber Aggression | - | .17* | .15* | .08 | .19* | .22** | -.05 | -.10 | -.03 |
| 2. Sexual Victimization | .06 | - | .38** | -.07 | -.06 | .19** | -.08 | -.19** | .32** |
| 3. General Victimization | .35** | .24* | - | .03 | -.10 | .11 | -.001 | .02 | .21** |
| 4. Callousness | .13 | .15 | -.13 | - | .32** | .11 | .04 | .07 | -.03 |
| 5. Egocentricity | .20 | .18 | .03 | .54** | - | .49** | -.03 | .09 | .09 |
| 6. Antisocial behavior | .30* | -.25* | .22* | -.02 | .09 | - | -.03 | -.07 | .16* |
| 7. Age | -.004 | -.05 | .03 | -.06 | -.04 | .11 | - | -.21** | .44** |
| 8. White | -.04 | -.30** | -.04 | .17 | .15 | .04 | .30** | - | -.10 |
| 9. Number of Sexual Partners | .22* | .20* | .17 | .17 | .19 | .24* | .48* | .08 | - |

*Note*. Correlations for men ($n$ = 98) are shown below the diagonal. Correlations for women ($n$ = 232) are shown above the diagonal.

*$p$ < .05. **$p$ < .01.

Next, a negative binomial regression model was used to examine relations between psychopathic traits and victimization in cyber aggression. Table 6 below presents the negative binomial results for the entire sample. Model 1 presents the independent effects of psychopathic traits while model 2 includes both general and sexual victimization to assess the association between victimization and cyber aggression as a form of antisocial behavior to assess the possible overlap between victimization and offending. As you can see in Model 1, only antisocial behavior ($b$ = .15, $p$ < .001) significantly predicted the likelihood of cyber aggression, suggesting antisocial behavior may manifest into online formats. Additionally, sex ($b$ = -1.30, $p$ < .001) and race/ethnicity ($b$ = -.54, $p$ = .022) were negatively associated with cyber aggression. Implications of these findings suggest males and individuals who identify as white are more likely to report cyber aggression. Once victimization was included in Model 2, egocentricity ($b$ = .08, $p$ = .012) and antisocial behavior ($b$ = .13, $p$ = .002) positively predicted cyber aggression, suggesting at least some primary and secondary psychopathic traits are associated with cyber aggression. Individuals who reported greater general victimization ($b$ = 1.11, $p$ < .001) were more likely to report cyber aggression. Both sex ($b$ = -1.48, $p$ < .001) and race/ethnicity ($b$ = -.62, $p$ = .01) negatively predicted cyber aggression where males and white individuals were more likely to report cyber aggression.

**Table 5**

*Negative Binomial Regression Results for Cyber Aggression for the Full Sample (N = 330)*

| | Model 1 | | Model 2 | | Model 3 | | Model 4 | | Model 5 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | *b* | SE | *b* | SE | *b* | SE | *b* | SE | *b* | SE |
| Callousness | .04 | .06 | .04 | .06 | .12 | .09 | .03 | .06 | .03 | .06 |
| Egocentricity | .05 | .03 | .08* | .03 | .08* | .03 | .12** | .05 | .10** | .03 |
| Antisocial Behavior | .15** | .04 | .13** | .04 | .14** | .04 | .15** | .05 | .25** | .08 |
| Sex | -1.30** | .25 | -1.48** | .28 | -1.00* | .49 | -.76 | .64 | -.38 | .63 |
| Age | -.12$^{\dagger}$ | .06 | -.12$^{\dagger}$ | .06 | -.11$^{\dagger}$ | .06 | -.13* | .06 | -.12$^{\dagger}$ | .06 |
| White | -.54* | .24 | -.62* | .24 | -.67** | .25 | -.70** | .25 | -.69** | .25 |
| Number of Sexual Partners | .03 | .02 | .02 | .02 | .01 | .02 | .02 | .02 | .01 | .02 |
| Sexual Victimization | - | - | .25 | .28 | .27 | .28 | .20 | .28 | .29 | .27 |
| General Victimization | - | - | 1.11** | .25 | 1.10** | .25 | 1.09** | .25 | 1.11** | .25 |
| **Interactions** | | | | | | | | | | |
| Callous X Sex | - | - | - | - | -.13 | .12 | - | - | - | - |
| Ego X Sex | - | - | - | - | - | - | -.07 | .06 | - | - |
| Anti X Sex | - | - | - | - | - | - | - | - | -.17$^{\dagger}$ | .09 |
| Constant | 1.53 | 1.25 | 1.08 | 1.26 | .48 | 1.33 | .68 | 1.29 | .11 | 1.34 |
| Pseudo $R^2$ | .08 | | .11 | | .11 | | .11 | | .11 | |

*Note.* SE = standard error.

$^{\dagger}$ $p < .10$. * $p < .05$. ** $p < .01$.

Due to the substantial sex differences in cyber aggression within the sample, interaction effects were assessed to determine if sex moderated relations between psychopathic traits and cyber aggression. Model 3 in Table 5 assessed the interaction effect of sex between callousness and cyber aggression, Model 4 assessed the interaction effect of sex between egocentricity and cyber aggression, and Model 5 assessed the interaction effect of sex between antisocial behavior and cyber aggression. However, there were no statistically significant interaction effects within all three models, suggesting sex may not act as a moderator for cyber aggression. Despite this, findings did suggest a possible moderation affect between sex and antisocial behavior, though not statistically significant within the sample ($b$ = -.17, $p$ = .06). Taken together, more research is needed to assess moderation effects; however, findings provide some support for the effects of psychopathic traits and victimization in the role of antisocial behaviors via cyber aggression.

Next, because sex was identified as a significant predictor in Models 1 and 2, analyses were stratified by sex to determine if psychopathic traits and victimization differentially affected cyber aggression. Model 1 identifies the independent effects of psychopathic traits for males while Model 2 includes victimization assessing cyber aggression in Table 6. Model 3 tests the effects of psychopathic traits for females, and Model 4 incorporates victimization effects on cyber aggression. Model 1 for males revealed that both egocentricity ($b$ = .10, $p$ = .022) and antisocial behavior ($b$ = .21, $p$ = .001) significantly predicted cyber aggression. This suggests that males who report greater egocentricity and antisocial behavior are more likely to report cyber aggression. When including victimization experiences in Model 2, not only did egocentricity ($b$ = .10,

$p$ = .016) and antisocial behavior ($b$ = .19, $p$ = .003) remain significant predictors of cyber aggression, but findings revealed that a history of non-sexual victimization experiences ($b$ = 1.19, $p$ < .001) significantly predicted cyber aggression for males. Specifically, for every one unit of change in general victimization, we would expect to see an increase in cyber aggression by 19%.

Model 3 presents the effects of psychopathic traits on cyber aggression for females. Findings revealed that only antisocial behavior ($b$ = .15, $p$ = .039) and race/ethnicity ($b$ = -.67, $p$ = .049) predicted cyber aggression. Females who scored higher in antisocial behavior and individuals who were white were more likely to report cyber aggression. When incorporating victimization experiences in Model 4, only egocentricity ($b$ = .11, $p$ = .041) and general victimization ($b$ = 1.07, $p$ = .004) increased the likelihood of cyber aggression, where females who were more egocentric and those who experienced prior non-sexual victimization experiences were more likely to engage in cyber aggression. Results find that with one unit increase in general victimization experiences, there will be a 7% increase in the likelihood women will participate in cyber aggression. Implications of these findings suggest that primary psychopathic traits through interpersonal deficits and prior general victimization may affect the likelihood that women may engage in antisocial behaviors via cyber aggression. Findings also reveal prior victimization as a predictor in offending behaviors, highlighting the need to parse out sexual and non-sexual victimization. Results for males and females can be viewed in Table 6 below.

**Table 6**

*Negative Binomial Regression Results for Cyber Aggression by Sex (N = 330)*

| | Males (*N*=98) | | | | Females (*N*=232) | | | |
|---|---|---|---|---|---|---|---|---|
| | **Model 1** | | **Model 2** | | **Model 3** | | **Model 4** | |
| | *b* | SE | *b* | SE | *b* | SE | *b* | SE |
| Callousness | .04 | .09 | .06 | .09 | .01 | .08 | -.04 | .08 |
| Egocentricity | .10* | .04 | .10* | .04 | .03 | .05 | .11* | .05 |
| Antisocial Behavior | .21** | .07 | .19** | .06 | .15* | .07 | .08 | .07 |
| Age | -.14 | .10 | -.16 | .10 | -.09 | .08 | -.03 | .09 |
| White | -.68$^{\dagger}$ | .41 | -.52 | .39 | -.67* | .34 | -.63$^{\dagger}$ | .38 |
| Number of Sexual Partners | .07$^{\dagger}$ | .03 | .05$^{\dagger}$ | .03 | -.01 | .04 | -.05 | .04 |
| Sexual Victimization | - | - | -.32 | .40 | - | - | .75$^{\dagger}$ | .41 |
| General Victimization | - | - | 1.19** | .33 | - | - | 1.07** | .37 |
| Constant | .95 | 2.05 | .99 | 2.01 | .19 | 1.65 | -1.87 | 1.85 |
| Pseudo $R^2$ | .07 | | .11 | | .04 | | .07 | |

*Note*. SE = standard error.

$^{\dagger}$ $p < .10$. * $p < .05$. ** $p < .01$.

To assess the role of psychopathic traits on victimization, logistic regression analyses were conducted for the entire sample followed by interaction effects by sex between all three psychopathic traits. Model 1 in Table 7 presents the results for relations between psychopathic traits and sexual victimization for the full sample. Findings revealed that psychopathic traits were not associated with sexual victimization for the full sample; however, significant sex differences ($b$ = 1.83, $p$ < .001) revealed the need to assess sex independently and as a moderating factor in assessing psychopathic traits on victimization. Additionally, age ($b$ = -.30, $p$ < .001), race/ethnicity ($b$ = -1.07, $p$ < .001), and the number of sexual partners ($b$ = 16, $p$ < .001) had an effect on the likelihood of experiencing sexual victimization where individuals who were younger, white, and had a greater number of sexual partners were more likely to report prior sexual victimization.

Model 2 presents the interaction effect of sex between callousness and sexual victimization; Model 3 assessed the interaction effect of sex between egocentricity and sexual victimization; and Model 4 assessed the interaction effect of sex between antisocial behavior and sexual victimization. Findings revealed a significant interaction effect between antisocial behavior and sexual victimization by sex ($b$ = .74, $p$ < .001) where greater reports of antisocial behavior, particularly for females, increases the likelihood of sexual victimization. Findings have been visually presented in Figure 5. Specifically, when antisocial behavior is high, the likelihood of experiencing sexual victimization significantly increases for females within the study while decreasing for males. These findings reveal possible vulnerabilities associated with secondary psychopathic characteristics through antisocial behavioral features and partial support for the victim–offender overlap, particularly by sex where females, when compared to males,

are more likely to experience adverse effects such as sexual victimization when engaging in antisocial behaviors. Next, although not statistically significant at a $p = .05$ level, Model 3 found a possible interaction effect between egocentricity and sexual victimization by sex ($b = -.16$, $p = .054$). Specifically, when females displayed greater egocentricity, they were less likely to experience sexual victimization whereas males appeared to have the opposite effect. Although results were not significant within the model, there may be an interaction that exists but is limited in significance due to the limitations surrounding the sample. Despite this, findings warrant further investigation as it may provide support that primary psychopathic traits such as egocentricity may actually act as a protective factor for females and differentially affect males. Specifically, females with greater primary psychopathic traits centered on interpersonal deficits may act as a protective factor against sexual victimization whereas for males, it may increase the likelihood of experiencing sexual victimization. These results provide further evidence of the complex effects of primary and secondary personality traits that affect males and females differently. Findings from the interaction effects can be viewed in Figure 5 and Figure 6. To plot the interaction terms, the unstandardized regression coefficients for the independent variable and moderator were included along with the mean and standard deviation of the independent variable. The value of the moderator at which the slopes were plotted included a low value of 0 and a high value of .9 for both figures.

**Table 7**

*Logistic Regression Results for Sexual Victimization for the Full Sample (N = 330)*

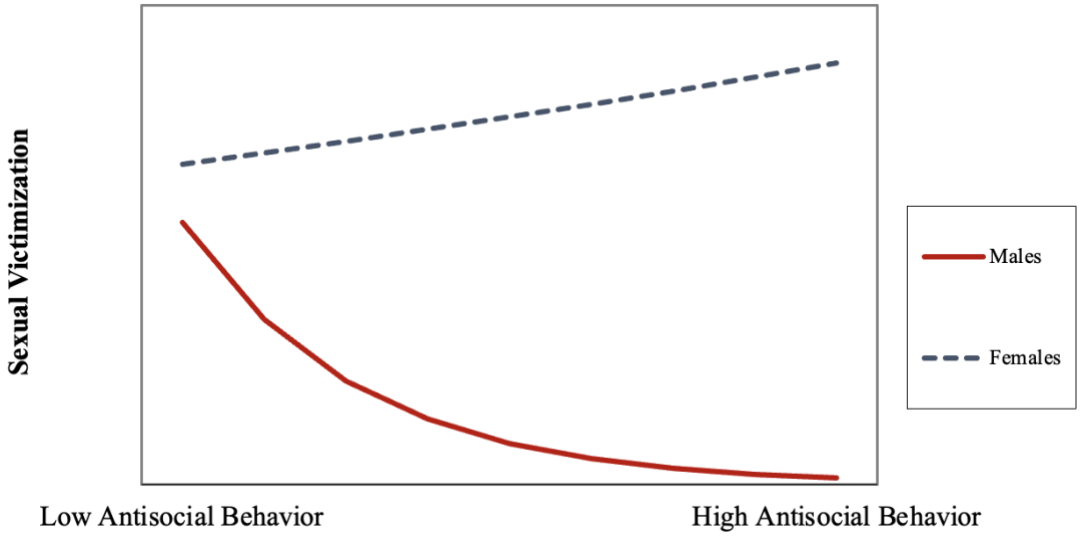
| | Model 1 | | Model 2 | | Model 3 | | Model 4 | |
|---|---|---|---|---|---|---|---|---|
| | *b* | SE | *b* | SE | *b* | SE | *b* | SE |
| Callousness | .004 | .06 | .16 | .13 | .001 | .06 | .04 | .07 |
| Egocentricity | -.03 | .04 | -.03 | .04 | .09 | .07 | -.06 | .04 |
| Antisocial Behavior | .02 | .05 | .02 | .05 | .04 | .05 | -.62** | .15 |
| Sex | 1.83** | .35 | 2.54** | .68 | 3.36** | .90 | -1.93* | .81 |
| Age | -.30** | .08 | -.29** | .08 | -.30** | .08 | -.35** | .09 |
| White | -1.07** | .27 | -1.07** | .27 | -1.09** | .27 | -1.00** | .28 |
| Number of Sexual Partners | .16** | .03 | .16** | .03 | .17** | .03 | .23** | .04 |
| **Interactions** | | | | | | | | |
| Callous X Sex | - | - | -.19 | .15 | - | - | - | - |
| Ego X Sex | - | - | - | - | -.16† | .08 | - | - |
| Anti X Sex | - | - | - | - | - | - | .74** | .16 |
| Constant | 4.19** | 1.53 | 3.39* | 1.65 | 2.94† | 1.69 | 8.29** | 1.98 |
| McFadden's Adjusted $R^2$ | .17 | | .17 | | .18 | | .22 | |

*Note*. SE = standard error.

† $p < .10$. * $p < .05$. ** $p < .01$.

**Figure 6**

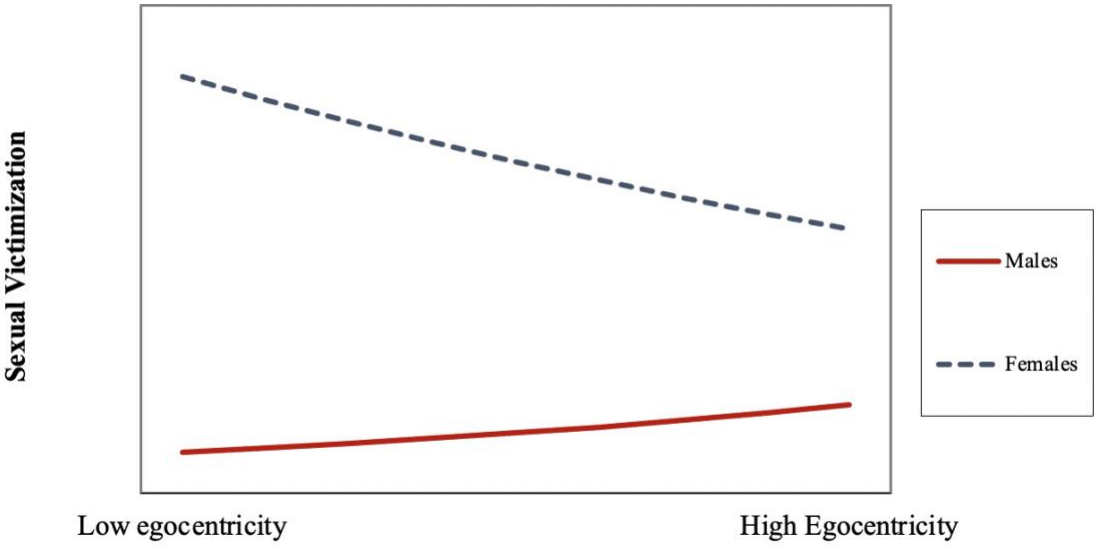
*Interaction Effect of Sex Between Sexual Victimization by Antisocial Behavior*




*Note*. Figure 5 provides the interaction effect of sex as a moderator between antisocial behavior and sexual victimization.

**Figure 7**

*Interaction Effect of Sex Between Sexual Victimization by Egocentricity*




*Note*. Figure 6 provides the interaction effect of sex as a moderator between egocentricity and sexual victimization.

Next, a logistic regression was conducted for the entire sample to identify the role of psychopathic traits in general victimization. Findings for the full sample revealed that egocentricity negatively predicted general victimization ($b$ = -.09, $p$ = .01) while antisocial behavior ($b$ = .12, $p$ = .008) and the number of sexual partners ($b$ = .08, $p$ < .001) positively predicted general victimization. No significant interaction effects were identified between psychopathic traits and general victimization within the model. Sex was not a significant predictor in either Models 1 or 2, indicating there were no sex differences. Therefore, sex stratified models were not conducted. Results can be viewed in Table 8.

**Table 8**

*Logistic Regression Results for General Victimization for the Full Sample (N = 330)*

| | Model 1 | | Model 2 | | Model 3 | | Model 4 | |
|---|---|---|---|---|---|---|---|---|
| | *b* | SE | *b* | SE | *b* | SE | *b* | SE |
| Callousness | .03 | .06 | -.11 | .11 | .02 | .06 | .03 | .06 |
| Egocentricity | -.09* | .03 | -.08* | .03 | -.03 | .06 | -.08* | .03 |
| Antisocial Behavior | .12** | .04 | .11* | .04 | .13** | .05 | .16† | .09 |
| Sex | .34 | .29 | -.28 | .51 | 1.19† | .68 | .64 | .67 |
| Age | -.08 | .05 | -.09† | .05 | -.08 | .05 | -.08 | .05 |
| White | .13 | .25 | .14 | .25 | .14 | .25 | .13 | .25 |
| Number of Sexual Partners | .08** | .02 | .08** | .02 | .07** | .02 | .08** | .02 |
| **Interactions** | | | | | | | | |
| Callous X Sex | - | - | .18 | .13 | - | - | - | - |
| Ego X Sex | - | - | - | - | -.09 | .07 | - | - |
| Anti X Sex | - | - | - | - | - | - | -.05 | .10 |
| Constant | .42 | 1.12 | 1.07 | 1.23 | -.32 | 1.23 | .19 | 1.20 |
| McFadden's Adjusted $R^2$ | .03 | | .03 | | .03 | | .03 | |

*Note*. SE = standard error.

† $p < .10$. * $p < .05$. ** $p < .01$.

Finally, Table 9 provides the logistic regression results for sexual victimization by sex. Callousness ($b$ = .44, $p$ = .49) and the number of sexual partners ($b$ = .24, $p$ = .008) positively predicted sexual victimization for males and antisocial behavior ($b$ = -.93, $p$ = .003) and race/ethnicity ($b$ = -3.00, $p$ = .003) negatively predicted sexual victimization for males. Egocentricity trended toward significance in a positive association ($b$ = .21, $p$ = .07), suggesting it may also increase the likelihood of sexual victimization for males, although not statistically significant within the sample.

For females, egocentricity ($b$ = -.13, $p$ = .006), age ($b$ = -.42, $p$ < .001), and race/ethnicity ($b$ = -.81, $p$ = .011) negatively predicted sexual victimization while antisocial behavior ($b$ = .17, $p$ = .003) and the number of sexual partners ($b$ = .27, $p$ < .001) positively predicted sexual victimization. Findings revealed differentiating effects of primary and secondary psychopathic traits in the role of sexual victimization for males and females and provide evidence into possible sex differences in the effects of psychopathic traits, with primary characteristics through egocentricity providing protective factors for sexual victimization and secondary traits increasing the likelihood of sexual victimization for females, whereas the opposite effect was found for males where greater callousness and egocentricity and lower antisocial behavioral scores increased the likelihood of sexual victimization. Sex stratified models for general victimization were not assessed due to a lack of statistically significant differences by sex. Although it is possible that psychopathic traits may affect general victimization for males and females differently, results were not captured within the sample. More research is needed to address sex differences and victimization experiences as results reveal differences by sex between victimization type.

**Table 9**

*Logistic Regression Results for Sexual Victimization by Sex (N = 330)*

| | **Model 2** (Males, *N*=98) | | | **Model 3** (Females, *N*=232) | | |
|---|---|---|---|---|---|---|
| | *b* | SE | OR | *b* | SE | OR |
| Callousness | .44* | .22 | 1.55 | -.004 | .07 | 1.00 |
| Egocentricity | .21† | .12 | 1.23 | -.13** | .05 | .88 |
| Antisocial Behavior | -.93** | .32 | .39 | .17** | .06 | 1.19 |
| Age | -.16 | .15 | .86 | -.42** | .11 | .65 |
| White | -3.00** | 1.01 | .05 | -.81* | .32 | .45 |
| Number of Sexual Partners | .24** | .09 | 1.27 | .27** | .05 | 1.31 |
| Constant | 1.97 | 3.34 | 7.15 | 8.04** | 2.17 | 3117.94 |
| McFadden's Adjusted $R^2$ | | .26 | | | .18 | |

*Note*. SE = standard error.

† $p < .10$. * $p < .05$. ** $p < .01$.

# CHAPTER V

## Discussion

This dissertation expands on the current, but limited, literature interested in investigating the role of psychopathic traits and different types of antisocial behaviors through cyber aggression and seeks to better understand the association between psychopathy and victimization. In particular, this dissertation sought to understand how psychopathic traits may affect different experiences of victimization and explore these relations by sex. Although offending has been associated with victimization where certain antisocial behaviors lead to increased risk (e.g., Broidy et al., 2006; Jennings et al., 2010; Jennings et al., 2012; Lauritsen & Laub, 2007; Piquero et al., 2005), these effects may in part be a result of unique personality traits that influence behavioral outcomes such as psychopathy. Furthermore, research assessing these associations by sex remains largely limited. As such, this dissertation used a sample of college students to understand the association between individual personality traits identified within psychopathy and cyber aggression and victimization. This context is important as universities may contribute, in part, to environments conducive to cyber aggression (Gibb & Devereux, 2014; Musharraf & Anis-ul-Haque, 2018) and victimization (Cantor et al., 2015; Fisher et al., 2000; Mellins et al., 2017), particularly for women. Therefore, investigating these associations is essential when seeking to reduce online aggression and victimization experiences to promote growth and success among university students where prevalence of these outcomes may be high. This dissertation also sought to bridge the current limitations in the literature by identifying associations between psychopathic traits, cyber aggression, and general and sexual victimization by sex to identify how males and females may be

differentially affected by these personality traits and investigate how these traits act as risk or protective factors.

First, this dissertation found significant sex differences between males and females for primary psychopathic traits where males reported greater egocentricity and callousness compared to females (see also Cale & Lilienfeld, 2002; Hoareau et al., 2017; Jonason et al., 2009); however, there were no observed sex differences in secondary psychopathic traits of antisocial behavior within the sample which could be due, in part, to the relatively small sample size for males and due to random chance. Additionally, while literature has remained relatively mixed on sex differences in cyber aggression (Alsawalqa, 2021; Connell et al., 2014; García-Fernández et al., 2022; Hoareau et al., 2017; Wang et al., 2009), findings provided evidence that males were more than twice as likely to engage in cyber aggression compared to females. Although there were no observed sex differences in general victimization experiences between males and females, females were significantly more likely (more than twice as likely) to report prior sexual victimization.

This dissertation also found significant correlations between psychopathic traits, cyber aggression, and victimization. Specifically, all three dimensions were positively correlated with cyber aggression, suggesting both primary and secondary psychopathic traits may increase the likelihood of engaging in cyber aggression. These findings provide support to current literature between psychopathy and offending (Beaver et al., 2017; Boccio & Beaver, 2018; Hawes et al., 2013; Salekin & Sewell, 1996) where psychopathic traits may result in individuals engaging in a variety of predatory behaviors including cyber aggression. When it came to victimization, the number of sexual partners

was highly correlated with both general and sexual victimization, suggesting the greater number of sexual partners one had, the greater likelihood of experiencing victimization. For the full sample, only general victimization was positively correlated with antisocial behavior, where those who reported prior general victimization experiences were also more likely to report antisocial behavior, implicating partial support for the association between victimization and engaging in risky behaviors (i.e., antisociality). However, when stratifying by sex, antisocial behavior was positively correlated with cyber aggression for males whereas for females, egocentricity and antisocial behavior were positively correlated with cyber aggression. It could be that males engage in cyber aggression for a variety of reasons not explored within this dissertation (e.g., low self-control), but when it comes to females, psychopathic traits, particularly interpersonal deficits (i.e., egocentricity), may remain a stronger correlate when engaging in cyber aggression. These findings suggest that males who engage in a host of antisocial behaviors may also engage in cyber aggression whereas for females, those who possess both primary and secondary psychopathic traits, particularly those who are more manipulative, self-centered, and antisocial, may be more likely to engage in cyber aggression. This falls in line with research that has previously reported females engaging in indirect forms of aggression such as ostracism or gossiping (Archer & Coyne, 2005; Connell et al., 2014; Crick & Nelson, 2002; García-Fernández et al., 2022; Smith et al., 2002) and suggests women who possess either characteristic may be more inclined to engage in relational forms of aggression through online formats.

Interestingly, antisocial behavior was negatively correlated with sexual victimization for males but positively correlated for females. In other words, *greater*

antisocial behavior correlated with greater sexual victimization for females suggesting exposure to risky behaviors is related to the likelihood of experiencing sexual victimization; however, for males, *less* antisocial behavior was correlated with greater likelihood of exposure to sexual victimization suggesting males who had a history of sexual victimization may actually be less likely to engage in antisocial behaviors. While speculative, it could be that college males within the study who had a history of sexual victimization present as a unique group that exhibits other qualities that allows them to overcome past experiences differently, lessening the likelihood of engaging in antisocial behaviors.

Although these findings do not present causation, it does raise questions about how males and females may express different outcomes when faced with similar experiences as well as the importance of recognizing different victimization experiences. For example, using an adult sample of former reservists (prior military service members), Street et al. (2007) found that when it came to sexual harassment, women reported more frequent experiences; however, among males who experienced higher rates of sexual harassment, they experienced stronger negative mental health affects when compared to women. The effect of sexual victimization by sex could then lead to differences in outcomes (e.g., antisocial behavior) later in life. Furthermore, general victimization was positively correlated with antisocial behavior for males, suggesting non-sexual forms of victimization may be related to risky behaviors presented in antisocial behavioral outcomes, highlighting possible correlates between predatory and non-predatory behaviors and different victimization experiences. Overall, these findings provide partial support for the role of antisocial behavior and egocentricity in cyber aggression and

victimization, where differences were observed by sex, particularly when assessing differences in the role of psychopathic characteristics on prior general and sexual victimization experiences where contrasting effects were identified between the two, providing evidence of the need to investigate these experiences separately.

Next, negative binomial results assessing the role of psychopathic traits and prior victimization experiences on cyber aggression revealed partial support (hypothesis 4). First, when looking at psychopathic traits, only antisocial behavior emerged as a significant positive predictor of cyber aggression. When including a history of general and sexual victimization, the model improved, revealing that egocentricity, antisocial behavior, and general victimization positively predicted cyber aggression and implicated prior victimization in the engagement of cyber aggression. In other words, greater interpersonal deficits and greater antisocial behavior increased the likelihood of engaging in cyber aggression, falling in line with predictions and prior literature (Birke, 2022; Ciucci et al., 2013; Fanti et al., 2012). Findings are unsurprising given that psychopathic traits are implicated in a variety antisocial behaviors. It could also be that those who are engaging in antisocial behaviors are also more vulnerable to general victimization experiences, and thus, have also reported general victimization among those who engage in cyber aggression, highlighting a possible overlap between victimization and offending. Additionally, within this dissertation, white respondents were significantly more likely to report both cyber aggression and sexual victimization as well. Although no statistically significant interaction effects were found by sex, antisocial behavior approached significance, suggesting that sex may moderate the association between secondary psychopathic traits and cyber aggression that was not identified within this sample.

As sex remained a significant predictor, models were then stratified by sex to determine sex differences between males and females that were not observed in interaction effects. When stratifying by sex and controlling for covariates, egocentricity and antisocial behavior positively predicted cyber aggression for males while only egocentricity positively predicted cyber aggression for females. When incorporating general and sexual victimization into the model, general victimization positively predicted cyber aggression for both males and females suggesting there may be a possible overlap between cyber aggression and general victimization. Overall, results suggest interpersonal deficits and antisocial behavior play a role for males in cyber aggression whereas only interpersonal deficits play a role for females. These results provide partial support for the role of psychopathic traits and victimization on cyber aggression suggesting that (1) both psychopathic traits and victimization are associated with increased reports of cyber aggression and act as a risk factor and (2) differences exist that may occur by sex where males may be more likely to report cyber aggression if they report greater psychopathic traits.

These findings provide evidence into reported sex differences in cyber aggression and support for non-adaptationist effects of psychopathic traits on behavior. Individuals who exhibit "fast" LH strategies may demonstrate behaviors that increase a host of risky and predatory behaviors (Adams et al., 2014; Dean et al., 2013; Gretton et al., 2004; Hunt et al., 2005; Simmons et al., 2018; Thomson, 2018) such as cyber aggression (see also Wyckoff et al., 2019), and as seen among individuals who exhibit higher psychopathic traits (Barr & Quinsey, 2004; Figueredo et al., 2006; Jonason et al., 2010; Mealey, 1995; Simmons et al., 2018). Within the sample, males were substantially more likely to engage

in cyber aggression, and within the model, 2 of the 3 dimensions of psychopathy increased that risk, suggesting that greater impulsivity, risk-taking, or sensation-seeking may lead males to engage in cyber aggression. Although substantially lower when compared to males, females who did engage in greater rates of cyber aggression scored higher in egocentricity only, suggesting that primary psychopathic traits may result in the engagement in online indirect forms of aggression but not other forms of antisocial behaviors. When incorporating victimization items, general victimization had a stronger effect for males, suggesting these individuals may be engaging in a host of antisocial behaviors, increasing exposure to situations that make them vulnerable to victimization. Although speculative, reporting general victimization is associated with the likelihood of cyber aggression, which could be due to males exhibiting psychopathic traits and ending up in situations that make them more vulnerable to both victimization and situations where cyber aggression can occur.

When assessing the role of psychopathic traits on prior victimization for the full sample, differences were identified between sexual and general victimization, highlighting the need to parse out different types of victimization experiences. It should be noted that the number of sexual partners was a positive predictor in both general and sexual victimization that held for males and females in stratified models (with the exception of general victimization for males), suggesting partial support for the association between fast LH strategies and likelihood of victimization (Figueredo et al., 2006; Gladden et al., 2009). For sexual victimization for the full sample, none of the three dimensions of psychopathic traits were significant; however, there was a significant moderation effect of sex between antisocial behavior and sexual victimization.

Interestingly, for males, sexual victimization was lower for those engaging in antisocial behavior whereas the opposite was found for females suggesting engaging in antisocial behavior has differentiating effects on males and females where exposure, particularly for females, increases with antisociality. These findings reveal that secondary traits may provide an increased risk for females in particular, increasing the likelihood of sexual victimization. This is also unsurprising given that the number of sexual partners and age, where individuals who were younger and had a greater number of sexual partners, were at increased risk. Risky behaviors and stimulation-seeking may, in part, increase exposure to risky situations (see Beaver, Al-Ghamdi et al., 2016; Boccio & Beaver, 2021; Narvey, 2020), placing women at an increased risk of sexual victimization. This finding provided partial theoretical support where the interaction term explained a greater proportion of the variance within the model by 5%. Additionally, although not statistically significant within the sample ($p$ = .054), it is possible that sex may also moderate associations between egocentricity and sexual victimization, though not captured here.

When stratifying by sex, greater egocentricity may actually act as a protective factor for females but acts as a risk factor for males when assessing sexual victimization. Specifically, females who reported less egocentricity were more likely to report sexual victimization. These findings contribute to possible diverging effects of primary traits when it comes to experiencing certain types of victimization as risk and protective factors that differentially affected men and women. For example, callousness increased the likelihood of sexual victimization for males, but antisocial behavior had the opposite effect. Although this finding does not fall in line with theory or previous literature where psychopathic traits and antisocial behavior are expected to increase victimization (see

Beaver, Al-Ghamdi et al., 2016; Boccio & Beaver, 2021; Jennings et al., 2010; Jennings et al., 2012; Lauritsen & Laub, 2007; Narvey, 2020; Ybarra et al., 2006), results may be due to the sample size or may present findings that are unique to adult male college samples, where males within the sample have learned to be more strategic in their antisocial behavior, thus decreasing the likelihood that they may have experienced sexual victimization, despite increased risk. In other words, they may have adapted their behavior in a way that lessons certain negative experiences while maintaining the expression of secondary psychopathic traits (i.e., successful psychopathy; Glenn et al., 2011; Mealy, 1995; Penke et al., 2007).

For females, evidence did support egocentricity as a predictor in sexual victimization, where it appeared to decrease the likelihood, or act as a protective factor, to sexual victimization. However, antisocial behavior positively predicted sexual victimization. These findings again reveal the need to separate psychopathic traits as they may not only affect males and females differently but have an effect between the dimensions as well. For females, primary traits acted as a protective factor whereas secondary traits appear to be risk factors. Implications suggest exposure to risky situations may increase the likelihood for females rather than males, and that greater egocentricity may lessen the likelihood one will experience sexual victimization for females. It could be that women within the sample have utilized these traits surrounding interpersonal deficits in a more effective way, and have used these traits to their advantage, or it could be due to the processing of emotional information. For example, Anestis et al. (2017) found that interpersonal-affective psychopathic traits provided some resiliency against PTSD symptoms among military personnel and suggest that

components within this dimension of psychopathy may be tied to amygdala reactivity (see also Hyde et al., 2014) where information processing differs among those who score high in these traits that acts as a buffer to PTSD symptoms or processing stressful events. It is also possible that women within the sample who report greater egocentricity may have learned to prioritize their own safety and have learned to identify situations that pose an increased risk to themselves by identifying environments more conducive to risk. As a result, they may be less likely to experience sexual victimization.

While previous studies have identified psychopathy as positively predicting victimization among youth (Beaver, Al-Ghamdi et al., 2016; Boccio & Beaver, 2021; Narvey, 2020), these studies did not identify differences in victimization experiences, including those in adult samples. This dissertation found similar effects when looking at general victimization among an adult sample but finds unique differences for sexual victimization. As such, results provide evidence on why we should recognize these experiences as uniquely different and why understanding sex differences is important to not only assess risk, but to highlight characteristics that may act as protective factors. It could be that antisocial behavior within the psychopathy construct is a stronger predictor in victimization; however, that does not mean that primary characteristics do not provide positive outcomes when identifying traits individually. In this case, evidence provided suggests, at least in part, that when it comes to sexual victimization, psychopathic traits provide protective factors, supporting adaptationist perspectives where psychopathy can be socially adaptive (Buss, 2009; Glenn et al., 2011). Evidence provided also emphasizes unique sex differences and highlights the complex nature of a multidimensional trait that may lead to increased or decreased risk among certain individuals, which may also vary

between factors. Rather, psychopathy may be contextual and provide both positive and negative outcomes based on how the traits are expressed.

Finally, for general victimization for the full sample, egocentricity was negatively associated with general victimization while antisocial behavior was positively associated with general victimization. This suggests less egocentricity and greater antisocial behavior increases the likelihood of experiences general victimization. In other words, individuals who were more egocentric were less likely to experience general victimization experiences. Antisocial behavior increased victimization as indicated in prior literature (Beaver, Al-Ghamdi et al., 2016; Boccio & Beaver, 2021; Narvey, 2020). In this case, egocentricity acts as a protective factor, where individuals who exhibit conning or manipulative behaviors and hold a grandiose sense of self-worth may utilize skills that may make them more aware of possible risks; however, more research is needed to test this assertation. Findings for general and sexual victimization remained similar where egocentricity acted as a protective factor for both while antisocial behavior acted as a risk factor, suggesting (1) psychopathy should continue to be assessed as a multidimensional construct that can affect risk differently for different factors of the construct and (2) may identify protective factors unique to females that lesson experiences of victimization, particularly when they utilize skills in a way that may emphasize the need to place themselves before others. Table 10 on the next page provides a summary of the findings and whether or not the analyses in this dissertation found support.

**Table 10**

*Summary of Hypotheses and Level of Support*

| Hypotheses | Result |
|---|---|
| 1. Males will score higher in psychopathic traits, report greater cyber aggression, and report greater general victimization while females will report greater sexual victimization. | Partial Support |
| 2. Psychopathic traits will positively predict cyber aggression. | Supported |
| 3. Sex will moderate the association between psychopathic traits and cyber aggression, particularly for males. | Not Supported |
| 4. Individuals who report cyber aggression will be more likely to report psychopathic traits and prior victimization. | Supported |
| 5. Psychopathic traits will positively predict sexual victimization. | Not Supported |
| 6. Sex will moderate the association between psychopathic traits and sexual victimization, particularly for females. | Partial Support |
| 7. Psychopathic traits will positively predict general victimization. | Partial Support |
| 8. Sex will moderate the association between psychopathic traits and general victimization, particularly for males. | Not Supported |
| 9. Psychopathic traits will positively predict sexual and general victimization for males. | Partial Support |
| 10. Psychopathic traits will positively predict sexual and general victimization for females. | Partial Support |

## Implications

The results from this dissertation highlight 3 main takeaways: (1) psychopathy is associated with greater cyber aggression engagement, particularly for males; (2) differences were observed by sex and between psychopathic traits on cyber aggression and victimization that affect behavioral outcomes and experiences; and (3) psychopathic traits may provide both risk and protective factors depending on how the expression of these traits manifest differently between males and females for victimization.

These findings hold implications regarding programming for college students that are two-fold. First, intervention practices at the university-level could build programs that target cyber aggression as it does appear to exist as a form of antisocial behavior prevalent among college students where males are significantly more likely to engage in

the behavior. These programs could be in the form of bystander intervention to help students recognize antisocial behaviors via cyber aggression and teach them how to act in response to those behaviors. Programs could also highlight prosocial behaviors while discouraging predatory behaviors. For example, the development of cognitive-behavioral training or cognitive-behavioral skills building (see Hutson et al., 2021) could be used to help students recognize behaviors that harm others and encourage self-improvement. With increased exposure to online material and media, it is possible that adults, particularly young college students, have seen these behaviors normalized; therefore, universities could develop programs targeting behaviors identified as cyber aggression to bring awareness to students and encourage action (e.g., bystander intervention). Previous literature has assessed bystander intervention programs on college campuses and has found that consistent bystander intervention training led to significantly higher active bystander intervention behaviors (Coker et al., 2011). It is possible that these forms of intervention programs can be structured to online events as well (i.e., cyber bystanders).

Eldridge and Jenkins (2020) found positive associations between (affective) empathy and bystander intervention for traditional bullying and cyber aggression, suggesting empathy may be a factor in reducing online aggressive behaviors; therefore, universities should encourage prosocial behaviors through empathy and encourage students to seek support. Empathy may also have implications on psychopathic traits, particularly surrounding interpersonal deficits, by teaching individuals to be “other oriented” (i.e., less egocentric) through the self-regulation of emotions (Decety & Jackson, 2004), and therefore more able to understand what others are feeling even if

they do not possess the qualities themselves, resulting in them being less likely to engage in cyber aggression.

Second, and along with the previous line of thought, policies and programs can focus bystander intervention programs to address risk of victimization as well, particularly sexual victimization among females. For example, if secondary psychopathic traits increase the likelihood of victimization, then creating programs that help students identify risks, including risky behaviors, could encourage others to get involved (e.g., "if you see something, say something") or be more equipped to recognize their own level of risk. Additionally, because prior victimization was found to increase the likelihood of reporting cyber aggression, addressing victimization may reduce the likelihood that individuals will engage in cyber aggression as well.

**Limitations**

Although this study contributes to the small but growing body of literature in the role of psychopathic traits in online cyber aggression and its relations with victimization, it is not without its limitations. One of the key limitations noted early within the study centers on the sample. Although a large proportion of studies assessing psychopathy and psychopathic traits use college samples (Cooke et al., 2022; Gibb & Devereux, 2014; Levenson et al., 1995; O'Connell & Marcus, 2016; Perez et al., 2022; Sellbom, 2011; Williams et al., 2017), less have looked at the role of cyber aggression and psychopathic traits (e.g., Nocera & Dahlen, 2020) and victimization (Cooke et al., 2022), despite the reported rates of cyber aggression and victimization at the university-level. This dissertation seeks to build on the limitations of research currently available to address both outcomes among college-aged men and women. It should be noted, however, that

the sample included those collected from a criminal justice program at one university, and therefore the sample is a convenience sample rather than a nationally representative sample which limits the generalizability of the findings. Additionally, a large proportion of the sample was missing data on key demographics, resulting in a smaller sample size, particularly for males ($N = 98$). This resulted in a need to dichotomize race as the proportion of white respondents was substantially higher than other groups, leading to numbers too small for analyses. Future research should more appropriately assess race as a categorical response variable instead. The high proportion of missing data (roughly 30%) meant using list-wise may have biased mean estimates and regression coefficients and correlations, which can occur as the proportion of missing data increases (Little & Rubin, 2002). Furthermore, while it is possible that effect sizes for males were captured within the stratified models, it is likely that significant effects between predictor variables existed that were not captured due to the small sample size, especially if findings were centered on very small, but statistically significant, effect sizes (e.g., $b < 0.15$). As such, these findings should be interpreted with caution.

Another limitation surrounds time-order. Although this study was specifically interested in the past 12 months, victimization could have taken place prior to that as it includes a history of victimization over the life course. Therefore, it is possible that victimization experiences preceded cyber aggression incidents; however, because the study was cross-sectional, we have no way of knowing which variable preceded the other and which one influences one over the other (i.e., if cyber aggression or victimization occurred first).

A third major limitation surrounds the victim–offender co-relationship that was investigated within the study. This survey only measured cyber aggression via cyberbullying behavior and not online victimization. This limitation means the study is only making the theoretical assumption that physical, in-person forms of victimization may be related to cyberbullying behavior. Although prior research has found that *in person* forms of aggressive behavior (e.g., bullying that can transfer into online formats) and possibly victimization (e.g., see Bacher-Hicks et al., 2022; Li, 2007; Paat & Markham, 2021) could be affected by one another due to changes in behaviors, more research is needed to assess if these associations hold true with victimization experiences. For example, it could be that the victim–offender overlap is important when looking at in-person forms of offending and victimization but remains largely unrelated to online experiences. Future research should include both cyber bullying and online forms of victimization experiences, particularly when it comes to teasing out sexual versus general victimization experiences (e.g., online sexual harassment and general victimization).

Finally, although research finds support for the three-factor model of psychopathy, issues have been noted surrounding the callousness factor. For example, Garofalo et al. (2019) found that although the LSRP 3-factor model appears to be superior to the 2-factor model, improvements toward the callousness items need to be made by possibly adding additional items to improve the scale's psychometric properties. Within this study, callousness remained almost completely unrelated to cyber aggression and victimization where it neither acted as a risk or protective factor to aggressive behaviors and victimization experiences. Internal consistency for callousness also

remained relatively low ($\alpha$ = .56, $\omega$ = .59) suggesting the items for this dimension of psychopathy may not reflect a set of closely related items for that dimension.

**Concluding Thoughts and Future Directions**

Despite these limitations, this study is the first study to identify differences in psychopathic traits and the unique experiences of different types of victimization, particularly the role it plays in sexual victimization and identifies the need for research to acknowledge these as unique experiences that differ by sex. This study also contributes to the growing, but limited body of literature linking cyber aggression to psychopathy and provides evidence that psychopathic traits may manifest in alternative forms of antisocial behaviors. Moving forward, future research should (1) investigate online victimization experiences as differences may emerge when looking at it within the context of cyber aggression that vary by sex. Investigating the online community as its own world may allow others to feel it is separated from their own and therefore act more aggressively towards others. Future research should also (2) further explore sex differences in victimization experiences and psychopathic traits, particularly as there appears to be substantial differences in the effect of psychopathic traits and sexual victimization. It may be that differences in primary psychopathic traits may act as a protective factor for females, particularly for sexual victimization, and that secondary psychopathic traits lead to greater victimization experiences. Finally, future research should (3) continue to investigate the role of psychopathic traits and other personality traits in cyber aggression by sex. While cyber aggression was more prominent in the male sample within the study which appeared to be, in part, explained by primary and secondary psychopathic traits, it remained largely unrelated for females, suggesting other characteristics may be

associated with the likelihood of engaging in cyber aggression. Future research should explore other personality traits in relation to cyber aggression among college samples (e.g., the Dark Triad) to assess the likelihood of online aggressive behaviors. If universities create environments that are conducive to cyber aggression and victimization, then investigating these associations at the individual level could help build university-sponsored programs and trainings in a way that lessens negative effects experienced by college students, and fosters growth by promoting success and encouraging prosocial behaviors as well as active participation to intervene.

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# APPENDIX A

## Cyberbullying

1. How many times have you made rude or mean comments to anyone online (e.g., ridiculed, or insulted others online)
2. How many times have you spread rumors about someone, whether they were true or not?
3. How many times have you made aggressive or threatening comments to anyone online?
4. How many times have you tried to get someone else to talk about sex online when they did not want to?
5. How many times have you asked anyone online for sexual information about themselves when that person did not what to tell?
6. How many times have you asked anyone to do something sexual online when they did not want to?

Response Categories: 6-Point Likert scale (0 = *Never*, 1 = *Once or twice a year*, 2 = *A few times per year*, 3 = *Once or twice a month*, 4 = *Once or twice a week*, 5 = *Every day/Almost every day*)

# APPENDIX B

**Sexual Victimization**

1. Have you been sexually attacked or raped, or an attempt made to do so?
2. Has someone such as a date or friend pressured or pushed you to do more sexually than you wanted to do?

**General Victimization**

1. Has something been taken directly from you, or an attempt made to do so, by force or threatening to hurt you?
2. Have you been beaten up by your mother, stepmother, father or stepfather?
3. Have you been beaten up or threatened with being beaten up by someone other than your mother or father?
4. Have any of your things been damaged on purpose, such as car or bike tires slashed, or books and clothing ripped up?

Response Categories: (0 = *No*, 1 = *Yes*, 2 = *Yes, but not in the past year*)

# APPENDIX C

## Three-Factor Model of Psychopathy

**Callousness**

5. Even if I were trying very hard to sell something, I wouldn't lie about it.
6. Cheating is not justifiable because it is unfair to others.
7. I feel bad if my words or actions cause someone else to feel emotional pain.
8. I make of point of trying not to hurt others in pursuit of my goals.

**Egocentricity**

9. In today's world, I feel justified in doing anything I can get away with to succeed.
10. My main purpose in life is getting as many goodies as I can.
11. I enjoy manipulating other people's feelings.
12. I tell other people what they want to hear so that they will do what I want them to do.
13. For me, what's right is whatever I can get away with.
14. Success is based on survival of the fittest; I am not concerned about the losers.
15. Making a lot of money is my most important goal.
16. I let others worry about higher values; my main concern is with the bottom line.
17. I often admire a really clever scam.
18. People who are stupid enough to get ripped off usually deserve it.

**Antisocial**

19. I am often bored.
20. I quickly lose interest in tasks I start.
21. I have been in a lot of shouting matches with other people.
22. I find myself in the same kinds of trouble, time after time.
23. When I get frustrated, I often "let off steam" by blowing my top.

Response Categories: 4-Point Likert scale (0 = *Strongly Disagree*, 1 = *Disagree Somewhat*, 2 = *Agree Somewhat*, 3 = *Strongly Agree*)

# APPENDIX D

Date: 5-4-2022

IRB #: IRB-2022-23
Title: Psychopathy and Personality Assessment Survey
Creation Date: 2-2-2022
End Date:
Status: Approved
Principal Investigator: Katherine Perez
Review Board: SHSU IRB
Sponsor:

## Study History

| | | |
|---|---|---|
| Submission Type Initial | Review Type Limited | Decision Exempt - Limited IRB |
| Submission Type Modification | Review Type Limited | Decision Exempt - Limited IRB |

## Key Study Contacts

| | | |
|---|---|---|
| Member Chelsey Narvey | Role Co-Principal Investigator | Contact [redacted] |
| Member Katherine Perez | Role Principal Investigator | Contact [redacted] |
| Member Katherine Perez | Role Primary Contact | Contact [redacted] |
| Member Chelsey Narvey | Role Investigator | Contact [redacted] |

**VITA**

# KATHERINE L. PEREZ

## EDUCATION

2023 **Ph.D. in Criminal Justice**
Sam Houston State University
Dissertation: *Examining Sex Differences and the Role of Psychopathic Traits in Cyber Aggression and Victimization*

2019 **M.A. in Criminal Justice & Criminology**
Sam Houston State University
Thesis: *The Influence of Prenatal Androgen Exposure on Psychopathy*

2016 **B.A. in Psychology**
California State University, Long Beach
*Magna Cum Laude*

2014 **A.A. in Psychology**
Citrus College

## CERTIFICATIONS

2022 Google Project Management Certification by Google on Coursera (*in progress*)

2022 Google Data Analytics Certification by Google on Coursera

2021 Psychopathy Checklist Revised (PCL-R) Certification Training (October)

## RESEARCH INTERESTS

Biopsychosocial criminology; mixed methods; mental health; victimology; risk assessment

## PUBLICATIONS

**Perez, K. L.**, Boisvert, D. L., Cooke, E. M., Connolly, E. J., Wells, J., Lewis, R. H., Woeckener, M., & Armstrong, T. A. (2022). The association between the 2D:4D ratio and psychopathic characteristics. *Heliyon*, e12171. https://doi.org/10.1016/j.heliyon.2022.e12171

Narvey, C. S., **Perez, K. L.**, Wolff, K. T., Baglivio, M., & Piquero, A. R. (2022). Gender differences in the empathy-recidivism relationship. *Criminal Justice and Behavior*, 00938548231153423. https://doi.org/10.1177/00938548231153423

## PUBLICATIONS IN PROGRESS

**Perez, K. L.**, Narvey, C. S., Boisvert, D. L., Armstrong, T. A., Wells, J., & Lewis, R. H. Empathy moderates the association between self-control and aggression.

Wells, J., **Perez, K. L**., Armstrong, T. A., & Boisvert, D. L. Empathy and aggression: The mediating role of psychopathy.

**Perez, K. L.**, Meeker, K. A., & Hayes, B. E. Bystander opportunity and intervention in low-risk and high-risk situations.

## PROFESSIONAL EXPERIENCE

2023 – present Research Analyst, Kinder Institute for Urban Research
*Rice University*

2021–2023 Doctoral Teaching Fellow, Department of Criminal Justice & Criminology
*Sam Houston State University*

2017–2023 Graduate Research Assistant/Teaching Assistant
*Sam Houston State University*

2016–2017 Undergraduate Research Assistant, Department of Psychology
*California State University, Long Beach*

## RESEARCH EXPERIENCE

2023 Research Analyst at the Kinder Institute for Urban Research, Rice University

**Description**: Contributed to the advancement in urban research by tackling challenges facing the Greater Houston Area and understanding issues facing communities in order to improve quality of life. Collaborated with researchers and partners through a research practice partnership model to advance and improve research through policy and public outreach with the goal of implementing solutions facing urban issues today.

**Description**: Worked in the community health research center to improve lives through data, research, engagement, and action

- Assisted in the development of the Community health research center through strategic planning
- Collaborated with the Harris Center to identify protective factors that improve family structure and life outcomes
- Contributed to the use of psychometric tools in the Youth Diversion Project

**Description**: Worked with the Houston Population Research Center (HPRC) to organize and process data for the Kinder Houston Area Survey measuring changes and continuities of attitudes, beliefs, and experiences from a large sample of Harris County residents.

- Assisted in the strategic planning and development of HPRC
- Collaborated with fellow researchers to produce KHAS reports: https://rice.app.box.com/s/zx6qvqxgnlwaul2wh177vjqja25120zl
- Met with partners to meet project needs and organizational goals

2022 Primary data collection for doctoral dissertation (lead PI): Mixed methods

**Description**: Managed a mixed-methods research project as principal investigator interested in understanding individual differences in personality that influence adult offending and victimization.

- IRB application experience and approval
- Quantitative survey development
- Survey distribution and data management
- Data cleaning and coding
- PCL-R qualitative interviewer

2021 Cleaned allele (DNA) data for biopsychosocial consortium (STW3 data)

**Description**: Assisted in the planning and coordination of a data cleaning project across colleges to ensure data integrity, identified errors within the data, and provided technical advice to fellow researchers

2019 Analyzed salivary hormone data for biopsychosocial consortium (STW3 data)

2018 *Measuring the effects of correctional officer stress on the well-being of the officer and the prison workplace and developing a practical index of officer stress for use bycorrectional agencies.* PI: John Hepburn; Co-PI/Texas Site Coordinator: Melinda Tasca; Co-PI/Texas Site Co-Coordinator: Daniel Butler. Funded by the National Institute of Justice.

**Description**: Worked with the Texas Department of Criminal Justice (TDCJ) focused on identifying factors leading to correctional officer stress and burnout to reduce turnover rates and improve mental health outcomes

- Conducted one-on-one interviews with correctional officers
- Quantitative data analysis

2017 Assisted with interviews assessing mental health effects among individuals housed in local jails

2016–2017 *Ethnocultural influences on women's experiences of and responses to intimate partner violence*. PI: Courtney Ahrens. Funded by the National Institute of Justice.

**Description**: Conducted semi-structured interviews and qualitative coding to identify how cultural norms or beliefs affect women's interpretation of violence, coping strategies, help-seeking experiences, and mental health outcomes in order to provide culturally responsive services and reduce barriers to intervention practices

- Analyzed and coded qualitative data (qualitative coder)
- Conducted pre-screening of participants over the phone
- Scheduled interviews
- Trained and interviewed participants for qualitative interviews
- Trained in transcribing interviews

2016–2017 *Voices and faces research project on sexual assault*. PI: Courtney Ahrens.

**Description**: Conducted qualitative coding for the *Voices and Faces* project focused on bringing names, faces, and testimonies of survivors of gender-based violence to public attention

- Qualitative coder
- Intensive interviewing

2016–2017 *Collective rumination, violence and aggression research*. PI: William Pederson.

**Description**: Led randomized controlled experiments for social and behavioral science research to understand how collective rumination increases the likelihood of an aggressive response

- Organized experiments
- Assessed participant suspicion arousal

## CONFERENCE PRESENTATIONS

### 2022

**Perez, K. L.**, Boisvert, D. L., Narvey, C. S., Wells, J., Lewis, R. H., Armstrong, T. A., & Connolly, E. J. (2022, November). *The moderating effect of empathy between self-control and aggression*. Paper presented at the meeting of the American Society of Criminology, Atlanta, GA.

**Perez, K. L.**, Boisvert, D. L., Armstrong, T. A., Connolly, E. J., Lewis, R. H., & Wells, J. (2022, March). *The malevolent personality: Effects of the Dark Triad and physiological response on violent behavior*. Paper presented at the meeting of the Academy of Criminal Justice Sciences, Las Vegas, NV.

**2021**

**Perez, K. L.**, Boisvert, D., Cooke, E. M., Connolly, E. J., Wells, J., Lewis, R., Woeckener, M., & Armstrong, T. (2021, November). *The influence of prenatal androgen exposure on psychopathy*. Paper presented at the meeting of the American Society of Criminology, Chicago, IL.

Wigginton, C., Bashaw, D. R., Carpentier, S. T., Gunderson, C. A., Pedersen, W. C., Abbate, E., Alba, S., Avila, T., Castro, A., Kotico, V., Lozano, J., Madsen, E., Mendoza, J., **Perez, K. L.**, Rivers, M., Solis, N., Taylor, A., Toyohara, S., Valle, S. (2021, April). *Collectively we perceive hostility: Trigger moderates the effect of collective rumination on perceptions of out-group hostility.* [Conference Workshop]. Poster presented at the meeting of the Western Psychological Association, Las Vegas, NV.

**2020**

**Perez, K. L.**, Boisvert, D., Wells, J., Lewis, R., & Armstrong, T. (2020, November). *The dark triad and self-control on crime and delinquency*. Paper presented at the meeting of the American Society of Criminology, Washington, D.C.
***Canceled*: due to COVID-19***

**Perez, K. L.**, Boisvert, D., Wells, J., Lewis, R., & Armstrong, T. (2020, March). *The dark triad and self-control on crime and delinquency*. Paper presented at the meeting of the Academy of Criminal Justice Sciences, San Antonio, TX.
***Canceled*: due to COVID-19***

**2019**

**Perez, K. L.**, Meeker, K., Hayes, B., O'Neal, E. (2019, March). *Bystander intervention: An examination of likelihood and risk of intervention.* Paper presented at the meeting of the Academy of Criminal Justice Sciences, Baltimore, MA.

Bashaw, D.R., Castro, A., Gunderson, C.A., Pedersen, W.C., Abbate, E., Alba, S., Avila, T., Carpentier, S.T., Kotico, V., Lozano, J.P., Madsen, E., Mendoza, J., **Perez, K. L.**, Rivers, M., Solis, N., Taylor, A., Toyohara, S., Valle, S. (2019, April). *Triggers mean more from the out-group: Type of target moderates the effect of a triggering event on state hostility.* Poster presented at the meeting of the Western Psychological Association, Pasadena, CA.

**2018**

Gunderson, C. A., Flores, R. F., Pedersen, W. C., Abbate, E., Avila, T., Chester, C., Contreras, M. Geraci, G. Jeynes, L., Kotico, V., Madsen, E., Mendoza, J., Musto, K., Nahigan, V., **Perez, K. L.**, Rivers, M., Ruiz, G., Taylor, A., Zamorano, C. (2018, March). *Blinded by anger: Collective rumination increases displaced aggression toward in-group but not out-group targets*. Poster presented at the meeting of the Society for Personality and Social Psychology, Atlanta, GA.

Bashaw, D., Gunderson, C.A., Pedersen, W.C., Flores, R.F., Abbate, E., Avila, T., Chester, C., Contreras, M., Ellison, J.M., Geraci, G., Jeynes, L., Kotico, V., Madsen, E., Mendoza, J., Musto, K., Nahigan, V., **Perez, K. L.**, Rivers, M., Ruiz, G., Taylor, A., Zamorano, C., & Lozano, J. (2018, March). *Aggressing against our own: Rumination type moderates the effect of collective narcissism on displaced aggression towards in-group targets*. Poster presented at the meeting of the Society for Personality and Social Psychology, Atlanta, GA.

Avila, T., Gunderson, C., Pedersen, W.C., Abbate, E., Bashaw, D., Kotico, V., Madsen, E., Mendoza, J., **Perez, K. L.**, Rivers, M., Taylor, A., & Toyohara, S. (2018, March). *In-group status won't protect you: The moderating effect of a trivial triggering event on ruminative displaced aggression.* Poster presented at the meeting of the Society for Personality and Social Psychology, Atlanta, GA.

**2017**

Gunderson, C. A., Flores, R. F., Ellison, J. M., Pedersen, W. C., Abbate, E., Avila, T., Chester, C., Contreras, M. Geraci, G. Jeynes, L., Kotico, V., Madsen, E., Mendoza, J., Musto, K., Nahigan, V., **Perez, K. L.**, Rivers, M., Ruiz, G., Taylor, A., Zamorano, C. (2017, April). *The more I think about it, they deserve it too: Degree of rumination moderates the effect of target type on group-based retribution*. Poster presented at the annual meeting of the Western Psychological Association, Sacramento, CA.

Gunderson, C. A., Flores, R. F., Pedersen, W. C., Abbate, E., Avila, T., Chester, C., Contreras, M. Geraci, G. Jeynes, L., Kotico, V., Madsen, E., Mendoza, J., Musto, K., Nahigan, V., **Perez, K. L.**, Rivers, M., Ruiz, G., Taylor, A., Zamorano, C. (2017, April). *Collective rumination increases displaced aggression toward in-group but not out-group targets.* Poster presented at the CSULB PSYCH day research symposium, Long Beach, CA.

Gunderson, C. A., Ellison, J. M., Flores, R. F., Pedersen, W. C., Abbate, E., Chester, C., Contreras, M. Geraci, G. Jeynes, L., Kotico, V., Madsen, E., Mendoza, J., Musto, K., Nahigan, V., **Perez, K. L.**, Rivers, M., Ruiz, G., Taylor, A., Zamorano, C. (2017, January). *Stewing about a provocation: The moderating effect of rumination type on the relationship between collective narcissism and displaced aggression.* Poster presented at the meeting of the Society for Personality and Social Psychology, San Antonio, TX.

Flores, R. F., Ellison, J. M., Gunderson, C. A., Pedersen, W. C., Abbate, E., Avila, T., Chester, C., Contreras, M. Geraci, G. Jeynes, L., Kotico, V., Madsen, E., Mendoza, J., Musto, K., Nahigan, V., **Perez, K. L.**, Rivers, M., Ruiz, G., Taylor, A., Zamorano, C. (2017, January). *The impact of outgroup entitativity and group membership on ruminative displaced aggression.* Poster presented at the meeting of the Society for Personality and Social Psychology, San Antonio, TX.

## TEACHING EXPERIENCE

2022–2023 Introduction to Methods of Research (*online*)

2021–2022 Introduction to Methods of Research

## GUEST LECTURES

2022 Correctional Systems & Practices (Honors)
Topic: Literature Reviews and Annotated Bibliographies

2022 Correctional Systems & Practices (Honors)
Topic: Early History: Prisons 1800 to present

2021 Introduction to Methods of Research
Topic: Qualitative Methods

2019 History of Criminal Justice
Topic: The Midcentury Criminal Justice System

## TEACHING INTERESTS

Biosocial Criminology; Psychopathy and Crime; Life Course Criminology; Research Methods

## SERVICE

### DEPARTMENT

*Criminal Justice & Criminology, Sam Houston State University*

2019–2021 Twitter Page Media Manager, Biosocial Criminology Association: @biosocialcrim.org

2018–2019 Peer Mentor, SHSU Criminal Justice Graduate Student Organization (GSO)

2017–2023 Service (GSO) Member, SHSU Criminal Justice Graduate Student (GSO)

## HONORS, AWARDS, AND SCHOLARSHIPS

2022 Graduate School General Scholarship

2022 Summer TPEG Nonresident Scholarship

2019–2023 Criminal Justice and Criminology Doctoral Scholarship

2020 Summer Research Fellowship, Department of Criminal Justice & Criminology, Sam Houston State University

2019 Summer Research Fellowship, Department of Criminal Justice & Criminology, Sam Houston State University

2016 Member, Phi Kappa Phi Honor Society, CSU, Long Beach

2015 Member, Psi Chi, CSU, Long Beach

2015–2016 Dean's Honor List, CSU, Long Beach

2015–2016 Member, Alpha Omicron Pi, CSU, Long Beach

2011–2014 Dean's List, Citrus College

## PROFESSIONAL AFFILIATIONS

2023 Latina/o/x Criminology

2019 American Society of Criminology, Division of BioPsychoSocial Criminology

2018 Academy of Criminal Justice Sciences

## PROFESSIONAL DEVELOPMENT

2023 Texas Nonmedical Drivers of Health Consortium Webinar: Applying Systems Thinking to NMDOH Impact

2023 Texas Nonmedical Drivers of Health Consortium Webinar: Food is Medicine Programs Designs and Strategies in Texas

2023 Hospital Engagement: Addressing Nonmedical Drivers of Health

2023 Basic Statistics in R, *Rice University*

2021 NCCHC Webinar on "Understanding Psychopathy: From Clinical Lore to Evidence-Based Outcomes"

2020 NIJ Webinar on "Delinquency, Victimization, and the Developing Brain: Results from the ABCD-Social Development Study"

## AD HOC REVIEWER

*Current Research in Behavioral Sciences*
*Journal of Criminal Justice Education*