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ACCEPTANCE

This dissertation, THE ROLE OF COPING RESOURCES AND NEUROTICISM IN PREDICTING FEMALE AGGRESSION IN INTIMATE RELATIONSHIPS, by DARA N. RAMPERSAD, was prepared under the direction of the candidate's Dissertation Advisory Committee. It is accepted by the committee members in partial fulfillment of the requirements for the Degree of Doctor of Philosophy in the College of Education, Georgia State University.

The Dissertation Advisory Committee and the student's department Chair, as representatives of the faculty, certify that this dissertation has met all standards of excellence and scholarship as determined by the faculty. The Dean of the College of Education concurs.

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ABSTRACT

THE ROLE OF COPING RESOURCES AND NEUROTICISM IN PREDICTING FEMALE AGGRESSION IN INTIMATE RELATIONSHIPS
by
Dara N. Rampersad

One hundred and eighty six adult heterosexual females enrolled in colleges across the United States were sampled to determine the influence of personality and coping variables on female Intimate Partner Aggression (IPA). The research instruments administered included online versions of: the Revised-Conflict Tactics Scale (CTS-2; Straus, Hamby, Boney-McCoy, & Sugarman, 1996), which explored female Intimate Partner Psychological Aggression and Physical Assaultiveness; the International Personality Item Pool (IPIP; Goldberg, 1999), which measured the personality trait of Neuroticism; and the Coping Resources Inventory for Stress-Short Form (CRIS-SF; Matheny, Curlette, Aycock, Pugh, & Taylor, 2007), which assessed the coping resources of Tension Control and Social Support, and provided an overall Coping resource score called Coping Resource Effectiveness (CRE). The role of Neuroticism was highlighted.

Neuroticism, but not CRE or specific coping resources, was predictive of Psychological Aggression in females. Neither CRE nor Neuroticism was a significant predictor of Physical Assaultiveness. Implications for reducing psychological aggression in intimate partner relationships were offered.

THE ROLE OF COPING RESOURCES AND NEUROTICISM IN PREDICTING FEMALE AGGRESSION IN INTIMATE RELATIONSHIPS

by
Dara N. Rampersad, M.A., LPC, NCC

A Dissertation

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Atlanta, GA
2008

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The culmination of this manuscript truly signifies many changes over the past six years. I would like to start by dedicating this dissertation, the final document of my doctoral work, to my loving mother, Lalita. Thank you for putting me through school mom, and always instilling the value of education in us (Sarita and myself). I hope to do the same for future generations to come. I love you!

I would also like to thank my sister Sarita for picking up the pieces and offering her continued support after our parents passed. She made these six years easier to bear just by being my big sister.

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ABBREVIATIONS

APA	American Psychological Association
CRE	Coping Resource Effectiveness
CRIS	Coping Resources Inventory for Stress
CRIS-SF	Coping Resources Inventory for Stress- Short Form
CSV	Comma Separated Values
CTS	Conflict Tactics Scale
CTS-2	Conflict Tactics Scale-Revised
DSM-IV-TR	Diagnostic and Statistical Manual-IV-Text Revised
DV	Domestic Violence
FBI	Federal Bureau of Investigations
IPA	Intimate Partner Aggression
IPIP	International Personality Item Pool
GV	Generally Violent
NEO-PI-R	Neuroticism, Extraversion, Openness-Personality Inventory-Revised
PO	Partner Only
SPSS	Statistical Package for Social Sciences

CHAPTER 1

THE EFFECTS OF PERSONALITY AND COPING RESOURCES ON FEMALE AGGRESSION TOWARD INTIMATE PARTNERS

Introduction

"Aggression is far from being a simple unidimensional psychological concept…"- Brown, Botsis, & Van Praag (1994)

Intimate Partner Aggression (IPA), as defined by both overt (i.e., physical and sexual) and covert (i.e., psychological) demonstrations of anger, continues to be an ongoing social concern (Simmons, Lehmann, Cobb, & Fowler, 2005) because of its cost to nuclear and extended family systems (Straus, 1993; Dutton, 2006), the legal system (Henning, Jones, & Holdford, 2003), and its deleterious effects on children (Dutton, 2000; Egeland, 1993; Straus, 1980). It is estimated by the American Institute on Domestic Violence (2001) that the cost of rape, physical assault, stalking, and homicide by an intimate partner, exceeds $5.8 billion each year in the United States, of which approximately $4.1 billion gets spent on victims requiring direct medical and mental health treatment. In addition, lost productivity and earnings due to IPA accounts for approximately $1.8 billion each year, and IPA victims lose nearly 8.0 million days of paid work per annum.

Steinmetz (1977) and Straus (1986) have suggested that over the past three decades, women have gone from being the primary victim of IPA to being equal to men in their level of frequency of perpetrated IPA abuse. Researchers have found over the

years that bilateral violence is the most common type of IPA, and the stereotype of the male as perpetrator and the woman as a victim is decreasing (Gelles, 1974; Levinson & Gottman (1983); Saunders, 1986; Straus, 1986; and White & Kowalski, 1994).

This change in gender roles over time, as it pertains to IPA, has left court systems and treatment providers in a quandary about how to treat female IPA offenders, so researchers who have been studying male perpetrators of IPA have now began investigating the phenomenon of female aggression (Holtzworth-Munroe, 2005). It has not been an easy road of research because of forces such as feminist groups and shelters, which have fought arduously for battered females and would prefer to keep the focus of aggression research strictly on male perpetrators (Holtzworth-Munroe, 2005). Yet, researchers have continued to persist in investigating the problem of female perpetrated IPA, and their findings are helping many women get the necessary gender appropriate treatment they need to stop the cycle of violence.

The changing zeitgeist indicated by the field's willingness to study female aggression developed as a result of pioneers such as Steinmetz (1977), Straus (1977-78), and Archer (2000). These authors have contributed invaluably to the sparse research on female IPA, and continue to advocate for both male and female perpetrators and victims by shedding light on the problem of IPA. Their research has also been helped by the way society has been changing its view of female aggression, i.e., via the implementation of pro-arrest policies in response to domestic violence calls, where increased numbers of women are being arrested for perpetrating violence against their male partners (Dutton & Corvo, 2006). The growing number of female arrestees presents a significant challenge

to criminal justice agencies that have only been largely educated about male offenders of IPA (Henning & Feder, 2004).

The purpose of this literature review is to discuss the role of coping and personality (i.e., neuroticism) in female aggression toward intimate partners. There seems to be some evidence that non-heterosexual and heterosexual females differ in their use of IPA (Petracek, 1999). As a consequence, this study limits its review to IPA among heterosexual women. It is hoped that the findings of this review will assist in a deeper understanding of the phenomenon of female perpetrated IPA, and help to guide the processing and treatment of females arrested for IPA.

Review

Many researchers have offered possible explanations for the etiology of IPA. This section will address the biological, personality, and behavioral etiological aspects of IPA.

Biological Causes

From a biological perspective, researchers have indicated that aggression is "fundamental to most species," with both sexes being capable of such behaviors (Fishbein, 1992; Archer, 1994; & Brown, Botsis, & Van Praag, 1994). However, the "aggressive behavior patterns of males and females differ because of inborn differences in biological processes" such as hormonal changes, and neurotransmitter dysregulation (Fishbein, 1992).

Testosterone

Archer (1994) examined the link between hormones (i.e., testosterone) and aggression and found that testosterone levels seemed more driven by aggressive behavior

than aggressive behavior being driven by testosterone. For example, testosterone levels increased after winning a wrestling match or engaging in a competitive game; rather than winning because of high testosterone levels. He also noted that suffering a loss (thereby increasing stress levels) had a clear decreasing effect on testosterone, but people didn't lose because of low testosterone levels. In a study by Dabbs, Jurkovic, & Frady (1991), cortisol (i.e., a stress hormone secreted by the adrenal glands) was found to be the apparent moderator between testosterone and aggression. They found that as stress increased, higher cortisol levels were associated with increased social withdrawal, which in turn moderated the relationship between testosterone and aggression, and consequently affected performance.

Some differences between males and females in relation to testosterone and aggression have been found to arise from maturational, socialization, and environmental influences (Archer, 1994). There is evidence from some research (Rubin, Reinsch, & Haskett, 1981; Salvador, Suay, Perez, Borras, & Martinez, 1991a; and Gladue, 1991b) that increases in testosterone are correlated with increased aggression; whereas other research (O'Carroll & Bancroft, 1984; Lindman, von der Pahlen, Ost, & Erikson, 1992) indicates that there is little to no correlation between the two factors. A summary of the meta-analyses on studies examining the interchange between testosterone and aggression indicate that there seems to be a positive association between testosterone and various measures of aggression, with a higher relationship being found where there are behavioral vs. trait measures being used to assess aggression. The influences between testosterone and aggressiveness seem to operate in both directions, with limited evidence that aggressiveness changes when testosterone levels are manipulated (Hannan, Friedl,

Zold, Kettler, & Plymate, 1991; Archer, 1994). In short, the relationship between testosterone and aggression is dynamic.

Neurotransmitters

Studies examining the effects of neurotransmitters on aggression have tended to focus on serotonin/5-hydroxytryptamine (5-HT), dopamine, acetylcholine, and norepinephrine (Brown et al., 1994). Of that list of examined neurotransmitters, serotonin has been the most researched as being connected to aggression. Brown et al., (1994) suggested that there is a clear relationship between decreased serotonin levels and increased impulsive aggression. Serotonin seemingly acts as a modulator of aggression by inhibiting behavioral responses to environmental stimuli, i.e., such as being exposed to an adverse situation where conflict is present (Van Praag, Kahn, Asnis, Wetzler, Brown, Bleich, & Korn, 1987).

Other Biological Factors

In addition to human aggression being influenced by hormonal factors, there are other biological factors (i.e., gestational environment and biochemical fluctuations) that might account for aggression. For instance, a certain percentage of men and women who display aggression seem to be influenced by neurobiological conditions experienced pre- or post-natally. When these pre- or post-natal biological experiences are combined with a socially disadvantageous environment (e.g., lacking financial and community resources, and being exposed to an abusive and neglectful (stressful) environment), coping skills diminish, and people can become more predisposed to aggression (Fishbein, 1992).

Stress & Coping

Pearlin, Menaghan, Lieberman, & Mullan (1981) studied the process of stress and found that it had three major parts: the source, the mediators, and the manifestations. To evaluate these components, they used longitudinal data over a four-year period to observe how life events, chronic life strains, self-concepts, coping, and *social supports* interacted to form a process of stress. The outcome of their evaluation was that various life strains and a lack of coping resources, including *social support*, directly eroded self-esteem and other positive self-concepts, which left people vulnerable to experiencing symptoms of stress (such as depression).

As stress and coping pertain to human aggression, the process of stress as previously described, should not be underestimated as a significant contributor. A study by Liu & Kaplan (2004) examined whether an aggressive response to severe role stress during early adulthood depended on gender and on an adolescent history of aggression. The findings indicated that men who reported using aggression during early adolescence were significantly more likely to respond to severe role stress with aggression during young adulthood, whereas men who were not aggressive in early adolescence did not report much increase in aggression under similar role stress. For women, role stress increased aggression only among those who did not report aggression in early adolescence. The authors interpreted these findings as being related to socialization, gender role expectations, and social structural constraints on males and females. In particular, they predicted that men may have continued to be aggressive under role stress because they internalized aggression as a legitimate and effective response since adolescence.

Researching the relationships between adult attachment, maladaptive coping styles, and distress among a sample of 55 college students, Lopez, Mauricio, Gormley, Simko, & Berger (2001) found that insecure attachment orientations were likely to dispose a person to use less adaptive forms of affect regulation and problem coping skills, which in turn increased the level of transient stress in the person's life. Another study using college students (Bird, Stith, & Schladale, 1991), examined 280 freshmen in violent and non-violent dating relationships, and compared them on factors of self-esteem, mastery (i.e., the belief that outcomes are within your control), use of coping strategies, and preferred negotiation styles. It was found that a negotiation style that was inclusive of *negative affect* and the coping strategy of *confrontation* were significantly related to dating violence in college students. However, students who coped with relationship distress through the coping strategy of increased *Social Support* were more likely to succeed in avoiding dating violence in their relationships. Scarpa & Haden (2006) also examined the role that *Social Support* played in aggressive behavior, and distinguished between two types of social support: actual received support, which involved help that was already given; and perceived support, which relied on the belief that support would be there when needed in the future. The results of their study indicated that individuals who perceived greater *Social Support* from their friends were significantly less likely to report using aggressive behavior than people who had perceived less *Social Support* from their friends. Interestingly, perceived *Social Support* from one's family was not a significant predictor of aggression.

In order to examine the effects of efficacious coping across the human lifespan, a study was done using a global measure of satisfaction with life across three age groups

(Hamarat, Thompson, Zabrucky, Steele, Matheny, & Aysan, 2001). It was found for the total sample (i.e., all three age groups) that the combined effects of *perceived stress* and *Coping Resource Effectiveness (CRE)* were better predictors of life satisfaction than either variable considered separately. Significant age differences in life satisfaction, perceived stress, and coping resources were also found. Specifically, perceived stress was a better predictor of life satisfaction in younger adults (18-40 years old), whereas CRE was a better predictor of life satisfaction for middle-aged (41-65 years old) and older adults (66 years and above). A follow-up study by this group (Hamarat, Thompson, Steele, Matheny, & Simons, 2002) using a much older population and narrower age range (i.e., 45-64, 65-74, and 75+) examined age differences in perceived coping resources and satisfaction with life. Among these age groups, people tended to report similarly on measures of life satisfaction, along with no significant differences in coping resources being found.

Personality Causes

Another important moderator of not only the effect between stress and IPA, but the relationship of health and IPA as well, is the role of personality variables. Lok & Bishop (1999) recognized the importance of researching personality type as it related to stress control (i.e., certain personality types leave a person more susceptible to negative stress outcomes). They studied four types of emotional control (a characteristic of personality): rehearsal (rumination); emotional inhibition (suppression of overt expression of emotion); aggression control (i.e., managing emotions); and benign (impulse/behavior) control, and their effects on psychological and physical well-being and found that rehearsal was correlated with greater perceived stress as well as higher

levels of health complaints; whereas emotional inhibition was negatively correlated with stress and unrelated to health complaints. Also, benign control was associated with lower perceived stress and fewer health complaints, while *aggression control* was unrelated to either stress or health complaints. Other studies examining the effects of personality types as it relates to stress and coping have found that aggression control seems to be related to the negative personality attribute of *Neuroticism*. Specifically, *Neuroticism* has been found to be significantly related to several end-of-life sources of distress (Chochinov, Kristjanson, Hack, Hassard, McClement, & Harlos, 2006); associated with self-blaming, poor health, wishful thinking, and becoming passive and withdrawn (Kato & Pedersen, 2005); and women's engagement in distancing/avoiding behaviors (Bouchard, 2003).

A study examining the effects of gender differences in personality traits across cultures (Costa Jr., Terracciano, & McCrae, 2001) found that gender differences were small relative to individual variation within genders; similar differences occur across cultures; and that differences were consistent with gender stereotypes. Specific findings were that women reported themselves to be higher on traits related to Neuroticism, Agreeableness, Warmth, and Openness to feelings; whereas men were higher in Assertiveness and Openness to ideas.

As previously discussed, personality traits (especially *Neuroticism*) have a direct link to stress, coping, and aggression. A study examining the personality profiles of women and men arrested for Domestic Violence (DV) used the Millon Clinical Multiaxial Inventory-III (MCMI-III; Millon, 1997) to compare groups of males and females matched on ethnicity, age, and income; all of whom were referred by the court

system for domestic violence. They found that women, when compared with male offenders, were more likely to demonstrate the presence of a personality disorder, as well as elevated histrionic, narcissistic, and compulsive personality traits (Simmons et al., 2005). Edmunds (1977) reported that different forms of aggression were found to have different personality correlates. He found that the personality trait of *Neuroticism* was significantly correlated with indirect aggression and irritability in both males and females. Additional studies using Neuroticism measures have also found direct significant relationships between *Neuroticism* and *Aggression* (Ang, Ng, Wong, Lee, Oei, & Leng, 2004; Burton, Hafetz, Henninger, 2007).

Behavioral Causes

People are more likely to aggress when a barrier prevents them from attaining an attractive goal they expected to obtain. They are also more likely to attack their object of frustration when they think they have been deliberately and wrongly kept from reaching their goal. In addition, people may be more apt to suppress their aggression when they think that the interference was accidental, or socially appropriate (Berkowitz, 1989).

To research the variables that influence the acquisition and maintenance of aggressive behavior, Hayes, Rincover, & Volosin (1980) studied 48 preschoolers with a Bobo doll experiment. They paid particular attention to the notion that the preschoolers' aggression might be maintained by *sensory reinforcement* (i.e., visual, tactile, auditory, and proprioceptive feedback) instead of *modeling*. Their results showed that *modeling* had an effect on imitative aggression (i.e., two nonverbal aggressive behaviors performed by the filmed model- kicking and hitting), but *sensory reinforcement* had an even greater effect than modeling on both imitative and non-imitative aggression (i.e., hitting,

punching, slapping, striking the doll, and firing a toy rifle at the doll). Their results also showed that modeling and sensory reinforcement serve different functions in the support of aggression. Modeling seemed to influence the initial acquisition of aggressive acts, whereas sensory reinforcement determined their maintenance of aggression.

Male Perpetrators

Historically, IPA had been thought of as being unidirectional; with males fulfilling the role of aggressor, and females being the passive recipients of abuse (Holtzworth-Munroe, 2005). Female abuse was seen to be an unimportant problem in relation to the devastating abuse endured by women. For instance, Minaker & Snider (2006) intimated that the construct of "husband abuse" being equal in magnitude to "wife abuse" is a myth, and that these phenomena should be carefully examined through a lens of socio-political structures before arriving at any conclusions. They believe that the "original" problem of "wife battering" has morphed into "domestic violence" and now "husband abuse" because of a neo-liberalist backlash to feminism. Therefore, the problem of "husband abuse" is primarily a constructed and symbolic one, and an over-recognition of male victimization by women. Henning, Renauer, & Holdford's (2006) research supported this assertion that husband abuse is not as prevalent as wife abuse. They classified 485 women charged and convicted of IPV into four categories: no prior violence; primary victim; primary aggressor; and primary aggressor not identified. An analysis of their data revealed that few of the women were identified as the primary aggressor in their relationship, and more were listed as victims.

A longitudinal study which supports the data that males are the primary aggressor in relationships was conducted by Huesmann, Eron, Lefkowitz, & Walder (1984). They

collected data over a 22-year period from more than 600 subjects, and it was found that 8-year olds who were aggressive at the beginning of the study were also aggressive 30-year olds at the end of the study. Specifically, males tended to show stability in both aggression and intellectual competence over time, and early aggressiveness was predictive of later serious antisocial behavior such as criminal behavior, spouse abuse, physical aggression, and traffic violations. It was also found that if individuals had experienced aggression within their families while growing up, their aggression levels were found to be more stable across generations and ages, and aggression was more frequent among them than among individuals who didn't experience family violence.

More recent research has focused on the role of attachment in IPA. Mauricio & Gormley (2001) studied 60 men arrested for DV on measures of dominance, frequency of IPV, social desirability, and adult attachment style. After adjusting for social desirability, it was found that adult attachment style significantly moderated the relationship between a need for dominance and frequency of violence. Specifically, insecurely attached men who indicated a need for dominance (i.e., a need to exert control) in their relationship also reported the most IPV toward their female partners.

Female Perpetration

Straus (1993) found that both men and women initiated violence at about equal rates, but women tended to incur physical injuries approximately two-thirds more of the time than men as a result of the conflict (Archer, 2000). Straus (1986) explained this phenomenon in an earlier cross-sectional study when he compared the trends of violence between husbands and wives in 1975 and 1985. He and other researchers (Follingstad, Wright, Lloyd, & Sebastian, 1991) noted that men were more apt to be physically

stronger than women as a result of having a greater average size, and so the result of the same act of a punch from a man was likely to be more inflicting of injury and pain. This finding might explain why researchers have consequently focused more on male aggression studies over the years; i.e., because women receive more severe injuries during IPA encounters than men (Bettencourt & Miller, 1996; Frodi, McCauley, & Thome, 1977; Stephenson, 1995).

Despite the higher incidence of injury endured by the women victims of IPA, Dutton, Nicholls, & Spidel (2005) found that females were just as abusive as males in intimate relationships, and even a little bit more aggressive in younger (under 30 years old) female/male dyads. In addition, the predictors of intimate aggression between males and females appeared to be similar; including antisocial criminal backgrounds, alcohol abuse, and personality disorders (especially as it impacts intimacy and attachment style (Dutton et al., 2005; Gormley, 2005)). Other researchers (Nicholls, Desmarais, Spidel, and Koch, 2005) have compared male and female undergraduates on rates of victimization and abuse perpetration criteria using the CTS-2 (Straus, et al., 1996), and found no *significant* difference between men and women on perpetrating abuse. However, women had somewhat higher rates of perpetration across all the categories of abuse; including psychological, physical, sexual coercion, and injury. The researchers explained their non-significant findings by saying that men tend to be less likely overall to report female abuse due to societal stereotypes and gender-role socialization. Other researchers such as Burke, Stets, & Pirog-Good (1988) also have supported this claim. Dowd (2001) reported that it is possible that male abuse may be under-reported because of sampling issues and the definition we ascribe to “abuse.” She stated that some

researchers attempt to minimize the effects of male abuse because there may be minor, if any injury at times. In addition, men may be less apt to contact the police for IPA because of socialization/sex-role expectations. Dowd (2001) challenged the traditional feminist explanations of female IPA (i.e., self-defense, patriarchal driven) by referring to lesbian studies in which there is also a high degree of partner aggression. She astutely stressed that IPA is not a *gendered* problem, and that we need to look beyond patriarchal privilege for a more complete explanation for IPA.

Richardson & Hammock (2007) suggest that too much emphasis is placed on gender effects in human aggression. They believe that gender stereotyping only exaggerates differences between males and females, and that differences are in fact minimal. They acknowledge that there seems to be support for the finding that females tend to use more indirect versus direct aggression than males, but add that gender roles, which are based on cultural expectations, appear to be more predictive of aggression than is gender. Supporting their assertion, Eagly & Steffen (1986) researched the effects of gender on aggression and found that sex differences were insignificant and inconsistent across studies. Men were found to use aggression as a means to physically cause pain, whereas women tended to use aggression that produced psychological or social harm. The researchers concluded that sex differences in aggression seemed to be a function of learning, gender role development, and social expectations. Gormley (2005) found that insecure adult attachment orientations affect both men's and women's IPV. Specifically, women and men with an *insecure type adult attachment* are equally at risk of abusing their intimate partners, both physically and psychologically.

Research comparing female to male IPA suggests that identifying gender differences are important in order to offer gender specific treatment (Henning et al., 2003). One such study by George (1999) collected data from 1,455 adults in the UK to determine the incidence of female perpetrated assaults against male and female victims over a five-year period. The instrument used to collect the data was modeled after the American based Conflict Tactics Scale (Straus, 1979), which is used to measure IPA. It was found that males reported being victimized by females more than females reported being victimized by other females, and experienced more severe forms of assault than females inflicted on other females. In addition, just over 50% of the men in this study reported being assaulted by a female intimate or ex-intimate partner, which is similarly reported in other studies (Straus & Gelles, 1986). For example, Archer (2000) found that women were more likely than men to use one or more acts of physical aggression, and to use these acts more frequently; whereas men were reported to be more likely to inflict injury when using aggression toward a woman. In a follow-up study, using the CTS (Straus, 1979), Archer (2002) found that women were more likely than men to throw something, slap, kick, bite, punch, or hit the other with an object, whereas men were more likely than women to beat up, choke or strangle as means of aggression.

Henning & Feder (2004) compared the demographic characteristics, severity of intimate partner violence, and the criminal histories of men and women arrested for assaulting an intimate partner. They found that women arrested for domestic violence had histories that warranted less concern for the potential of future violence than men. In addition, they found that men who used substances were more likely to have aggression problems than men who did not use substances prior to their index offenses. A recent

nationwide examination of the 10-year arrest trends between the years of 1996–2005 (Department of Justice- Federal Bureau of Investigation (FBI, 2006)) demonstrated that adult men (i.e., over the age of 18) showed a decreased arrest rate of 14 percent for aggravated assault, while adult women demonstrated an increased rate of arrest of 5.4 percent for aggravated assault. It was also found that the number of females arrested for general criminality *increased* 7.4 percent, whereas the number of males arrested *decreased* by 7.6 percent.

Longitudinal Studies

Straus & Gelles (1986) found that over a decade long period (1975-1985), violence against women by their husbands decreased by 22%, whereas severe assaults on husbands by their wives decreased only 4.3%. They accounted for this notable decrease in wife abuse by examining the changing environment in America during this decade, which included: changes in the family, in the economy, in the social acceptability of family violence, and in the social alternatives available to women (such as the availability of treatment and prevention services).

In a longitudinal study of 272 people conducted by O'Leary, Barling, Arias, Rosenbaum, Malone, & Tyree (1989), more women than men reported physically aggressing against their partners, prior to marriage, at baseline, and at 18 and 30-month follow-ups. The types of aggression that women tended to use in this study included: pushing, grabbing, shoving, and slapping. The authors believe that there are differences in the psychological and physical consequences in female-to-male and male-to-female types of aggression, and it is important for these differences to be researched. There was speculation that the females in the study may have been using aggression as self-defense

against their partners; but this was not found. In fact, what was evident from the data was that women tended to engage in aggression toward their partners even in the absence of any partner aggression preceding their behavior. This latter finding was also confirmed by Graham-Kevan & Archer (2005); and Carney, Buttell, & Dutton (2007) where they found that fear was negatively related to women's partner aggression, and women aggressed without provocation.

College Samples

Early research by Makepeace (1981) examined courtship violence in a sample of 202 college students to determine its incidence, variations, and identify basic social correlates of the phenomenon. What he discovered was that violence was occurring at a rate of 20% among the college sample. Straus (2006) sampled 13,601 university students in 32 nations to investigate the assertion that men are the primary instigators of violence in relationships. He found that almost a third of the female and male students physically assaulted a dating partner in the 12-month study period. In addition, the most frequent pattern was mutuality in violence, i.e., both were violent, followed by female-only violence. The least common type of violence he found in this study, according to both males and females, was male-only violence. It was also determined by Straus (2006) that when *dominance* was used by either the male or female partner, there was an increased level of violence associated with it.

Using perceptions of both victims and perpetrators, 495 college students completed measures assessing dating violence, social desirability, and state-trait anger expression (Follingstad et al., 1991). It was found that females were more likely than males to report that they were the recipients and perpetrators of dating violence. They

were also more apt to self-report that they were the primary aggressor in their relationships. A reported unexpected finding was that males who used force said that they were more likely to be retaliating for being hit first, and female perpetrators verified this as being the case. Both males and females being victims and perpetrators thought that expressing anger and retaliation for emotional hurt were common motivators for their aggression. However, victims reported that getting *control* and reacting out of *jealousy* also played an important role in the use of aggression in their relationships. O'Leary, Smith Slep, & O'Leary (2007) studied 453 couples and found that the three strongest predictors of partner aggression for men and women were *dominance/jealousy, marital adjustment, and partner responsibility expectations*.

Orcutt, Garcia, & Pickett (2005) examined the frequency, severity, and reciprocity of female IPA in a college sample of 457 women. The women were classified into one of four groups based on their self-reported levels of IPA: nonviolent, perpetrator only, victim only, and bidirectionally violent. It was found that women in the bidirectionally violent group reported higher occurrences of perpetration and victimization than those in the perpetrator only and victim only groups. It was also reported that the women in this group experienced equal levels of violence and injury (i.e., reciprocity) as their male partners. When examining the impact of romantic attachment style among a subset of the total population, the bidirectionally violent female group was found to have the highest reported levels of attachment anxiety than the other female groups. Furthermore, females who reported high levels of attachment anxiety and low attachment avoidance were more likely to report perpetrating violence than females high in both styles.

Daters, Cohabitors, & Married

Magdol, Moffitt, Caspi, & Silva (1998) compared partner abuse between 21-year old cohabitors and daters, and found that cohabitors were significantly more likely than daters to perform abusive behaviors. They suggested that cohabitation by older adults may have been associated with more abuse, relative to daters, because of higher levels of stress in the absence of the "rules" of marriage. Yllo & Straus (1981) defined the "rules" of marriage as bringing with it "not just a change in the legal status of the couple, but also a change in the whole set of social expectations and assumptions regarding the couple." They believe that the marriage ceremony, which transforms a private relationship into a public one, tends to govern the behavior of the couple in socially appropriate ways (such as not abusing a partner). As a result of this belief, Yllo & Straus (1981) examined the differences in the rates of IPA between people in ongoing marriages and cohabiting relationships. The data they collected from 2,143 adults suggested that cohabitors showed more violence than married couples. However, cohabitors who had the following characteristics: over 30 years old, divorced female, had high incomes, and those who had been together for over ten years, had very low rates of violence.

Self-defense

A literature review by Carney et al., (2007) found that female perpetrated abuse in relationships is at least as common as male perpetrated abuse, is often of the same severity, can result in serious negative consequences for male and female victims, and seems to have a common set of causes, i.e., witnessed/was the primary victim of inter-parental/caregiver abuse, had a history of using aggression, had substance abuse issues, and personality problems such as Axis II diagnoses (Hines, Brown, & Dunning, 2007).

In addition, contrary to the belief that the etiology of women's IPA stems from self-defense in response to male initiated abuse, it was also found that women have a history of committing unilateral abuse (Babcock, Miller, & Siard, 2003). In their study, Babcock et al., (2003) divided a group of 52 women into two groups based on their use of violence: Partner-Only (PO), and Generally Violent (GV). PO women were hypothesized to use violence out of self-defense (i.e., reactive aggression), whereas GV women were hypothesized to use aggression to exert control (i.e., instrumental aggression). It was found that GV women did use instrumental aggression more frequently than PO women; they also tended to report more traumatic symptoms than PO women (although they did not endorse a history of more abuse); and they were more likely to witness their mothers being physically aggressive than PO women. The authors therefore concluded that GV women may have been more socialized to believe that it is acceptable to use aggression/violence to resolve conflict than the PO women.

Victimization

Thomas (2005) reviewed 15 years of international research on women's anger, and found that women seemed to be denied of power/resources, and treated unjustly/poorly. She reported that few women appeared to learn healthy anger expression while growing up, and that their anger is often mixed with hurt and pain. Dowd, Leisring, & Rosenbaum (2005) collected data from the initial evaluations of 107 female DV perpetrators referred to an anger management program, and found that women tended to be socioeconomically disadvantaged and undereducated, with histories of childhood attachment problems and victimization, as well as mental illness and substance abuse. In

addition, women who were aggressive demonstrated a greater adherence to treatment if the women were court mandated as opposed to voluntarily admitted to treatment.

Hamberger (1997) researched reasons why women used aggressive behaviors, and found, in order of prevalence, that it was for: self-defense/protection; expressing feelings/tension relief; getting the other person to shut up/stop nagging; retaliating against a previous assault/getting the person to do something; asserting authority; retaliating against emotional abuse; and not knowing why. Graham-Kevan & Archer (2005) had 358 women complete measures of physical aggression, control, and fear, to investigate explanations for their IPA (i.e., fear based; reciprocity; and coercion). It was found that each of the three explanations was partially supported, but more importantly, that women's use of IPA was a complex phenomenon that could not be understood using a unitary explanation. Specific results indicated that women's fear was negatively associated with their IPA, and women's reports of frequency of their partner's use of IPA and controlling behaviors were associated with women's IPA toward their partners.

Henning et al., (2003) collected data from 2,254 males and 281 females, and were particularly interested in the role of demographic characteristics, mental health functioning, and childhood familial dysfunction, as it related to IPA. They compared men and women who were demographically similar on variables of age, race, level of education, current employment status, and their relationship to the victim at the time of the offense. Their results showed that many of the female IPA offenders in the study were exposed to physical aggression in their homes of origin (i.e., 25% witnessed inter-parental violence, 33% were physically abused by a caregiver, and 81.5% of the women reported that their parents used corporal punishment). Additional risk factors for female

IPA reported by the women in the study included high rates of parental separation, relationship dissatisfaction, and parental substance abuse. From a mental health standpoint, women were found to be more likely than men to have previously attempted suicide, and possess more symptoms of personality dysfunction (including mood disorders, histrionic, and borderline diagnoses), whereas men had more conduct issues in childhood and substance abuse issues in adulthood compared to women.

Socialization

Graves (2007) believes that female aggression is related to adolescent peer influences, sexual abuse and victimization, and socialization pressures. She asserts that for the female adolescent, it is often difficult to strike a balance between the roles of maintaining passivity (thereby internalizing aggression when frustrated), and adopting a more assertive/aggressive style to obtain their goals; the result of which is usually overt aggression, instead of more pro-social methods of expressing assertiveness.

Kruttschnitt, Gartner, & Ferraro (2002) evaluated IPA research to identify critical domains and questions that might help us to understand gender and IPA. Some main points that evolved out of their research were that women's violent crime rates have been altered by changes in legal and institutional forms of social control (e.g., pro-arrest policies); use of lethal violence has become more concentrated in their late adolescence and early adulthood; risk of violent victimization have remained relatively stable for the past three decades, and appears to be related to their social status and social roles; and involvement in drug-selling networks and communities increases their risk of violent offending and victimization. In addition, there is also consistent evidence linking men

and women's use of IPA to hyperactivity/impulsivity problems, low socioeconomic status, and parental violence (the strongest predictor found (Graves, 2007)).

Ridley & Feldman (2003) used a conflict framework to investigate the frequency and severity of female IPA towards male partners. The conflict framework included four components: conflicts of interest; conflict orientations; conflict responses; and conflict outcomes. It was found that seven communication responses (i.e., blaming, accusing, criticizing, threatening, name calling, swearing, and verbally attacking the character, competence, or appearance of the partner) and four outcome variables (i.e., the problem was not solved to the partners liking, their point of view had not been understood, they did not have a say in the problem resolution, and both partners felt distant, withdrawn, discouraged, or hopeless after an argument) were significantly related to frequency and severity of aggression.

Comparing Genders

A study by Renauer & Henning (2005) addressed the question if male or female DV offenders involved with the criminal justice system were more likely to recidivate. The importance of their research question stemmed from their finding that women accounted for approximately 25% of the population arrested for DV. To evaluate recidivism, they coded it in two ways: recidivism as a suspect; and recidivism as a victim. The results indicated that there were differences in the way that men and women recidivate; men were more likely to recidivate as a suspect, and women were more likely to be listed as future victims in police reports. In addition, even though some females in this study were found to be primary aggressors, and another group was found to be in relationships characterized by bi-directional/mutual violence, police officers tended to

underestimate the overall impact that women were having as IPA perpetrators. It is suggested that women who are the perpetrators of IPA may be similar to their male counterparts, in that they use aggression for instrumental purposes (i.e., to get what they want), or they have limited skills necessary to resolve relationship conflicts without resorting to non-violent means.

Summary

Regardless of the etiologies of female perpetrated IPA, it is important to recognize from the literature that female IPA is a real issue and there are clear areas of intervention that could help many women. In particular, interventions aimed at curbing childhood familial abuse, decreasing substance abuse, increasing women's socioeconomic positions through education, offering treatment for personality disorders, and helping to bolster their coping resources can help women to choose IPA free relationships, which will enable them to become better family members, and contributors to society. It is also important to understand the various causes of aggression as reviewed in this article (i.e., biological, personality, and behavioral causes, as well as self-defense, victimization, and socialization), as this can assist researchers and clinicians in their work with perpetrators. As seen in this review, the constructs of coping and personality have received considerable attention in the psychological literature over the years (Matheny, Curlette, Aycock, & Junker, 1993; Pearlin et al., 1981; Liu & Kaplan, 2004; Costa, Jr. et al., 2001; Simmons et al., 2005), however, there have not been any studies, as of yet, examining the relationships between personality, coping, and female aggression. Future research should address this gap in the literature so that women have access the best possible sources of treatment for IPA, and eventually stop the cycle of violence.

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CHAPTER 2

THE ROLE OF COPING RESOURCES AND NEUROTICISM IN PREDICTING FEMALE AGGRESSION IN INTIMATE RELATIONSHIPS

Introduction

The face of Intimate Partner Aggression (IPA) has been changing over the past few decades. More and more women are being arrested and charged with IPA, with rates equaling that of men (Steinmetz, 1977; Straus, 1977-78; Saunders, 1986; White & Kowalski, 1994; Archer, 2000; Holtzworth-Munroe, 2005). Despite the growing number of women being arrested for IPA (Renauer & Henning, 2005), some researchers are resistant to examining the role that women play in female perpetrated IPA (Minaker & Snider, 2006; Henning, Renauer, & Holdford, 2006). In addition, feminist groups, which have fought arduously for battered females and have established shelters for their refuge, prefer to keep the focus of aggression research strictly on male perpetrators (Holtzworth-Munroe, 2005). However, female perpetrated IPA, as defined by both overt (i.e., physical and sexual) and covert (i.e., psychological) demonstrations of anger, continues to be an ongoing social concern (Simmons, Lehmann, Cobb, & Fowler, 2005), and its cost to nuclear and extended family systems (Straus, 1993; Dutton, 2006), the legal system (Henning, Jones, & Holdford, 2003), and its deleterious effects on children (Dutton, 2000; Egeland, 1993; Straus, 1980) warrants examination. Capezza & Arriaga (2008) suggest that the effects of psychological aggression can often be more detrimental

and pervasive when compared to physical assaultiveness, and thus warrants examination as separate constructs.

This study examines the role of coping resources and personality (i.e., neuroticism) in female aggression toward intimate partners. In particular, this study contributes to the literature by examining the prediction of psychological aggression and physical assaultiveness through the use of neuroticism and various coping resources as predictor variables. There seems to be some evidence that non-heterosexual and heterosexual females differ in their use of IPA (Petracek, 1999). As a consequence, this study limits its review to IPA among heterosexual women. It is hoped that the findings of this study will assist in a deeper understanding of the phenomenon of female perpetrated IPA, and help to guide the processing and treatment of females arrested for IPA.

It is estimated by the American Institute on Domestic Violence (2001) that the cost of rape, physical assault, stalking, and homicide by an intimate partner, exceeds $5.8 billion each year in the United States, of which approximately $4.1 billion gets spent on victims requiring direct medical and mental health treatment. In addition, lost productivity and earnings due to IPA accounts for approximately $1.8 billion each year, and IPA victims lose nearly 8.0 million days of paid work per annum. Even though only a small proportion of these numbers reflect female perpetrators of IPA, the cost of not addressing the issue is very high (Simmons et al., 2005).

Many researchers have offered possible explanations for the etiology of IPA. Some have focused on the biological effects of aggression (Fishbein, 1992; Archer, 1994; Brown, Botsis, & Van Praag, 1994), finding that testosterone in high levels, and

neurotransmitters like serotonin (5-HT) being found in low levels, contribute to higher levels of aggression (Rubin, Reinsch, & Haskett, 1981; Salvador, Suay, Perez, Borras, & Martinez, 1991a; Gladue, 1991b; Van Praag, Kahn, Asnis, Wetzler, Brown, Bleich, & Korn, 1987; Brown et al., 1994). Other researchers have suggested that IPA is caused by personality variables such as *Neuroticism*, and have found that women, when compared with male offenders, were more likely to demonstrate the presence of a personality disorder, as well as elevated histrionic, narcissistic, and compulsive traits (Simmons et al., 2005; Costa Jr., Terracciano, & McCrae, 2001). Behaviorists contend however that people are more likely to aggress when a barrier prevents them from attaining an attractive goal they expected to obtain, and they are also more likely to attack their object of frustration when they think they have been deliberately and wrongly kept from reaching their goal (Berkowitz, 1989).

Coping and IPA

The role of stress and coping should not be underestimated when explaining human aggression. It has been found that stress and poor coping related to socialization, societal constraints, *poor tension control*, and gender role expectations have had a clear relationship to a person's engagement in aggression (Liu & Kaplan, 2004). In other studies, insecure attachment orientations and poor coping styles were likely to dispose a person to use less adaptive forms of affect regulation and problem coping skills, which in turn increased the level of transient stress in the person's life (Lopez, Mauricio, Gormley, Simko, & Berger, 2001). Bird, Stith, & Schladale (1991) found that poor coping styles and negative affect contributed significantly to violence in college students, but that utilizing the coping strategy of *social support* helped students to be more successful in

avoiding dating violence. This finding was also supported by Scarpa & Haden (2006) who found that people who perceived greater *social support* from their friends were significantly less likely to report using aggressive behavior than people who had perceived less social support from their friends.

Female IPA

Straus (1993) found that both men and women initiated violence at about equal rates, but women tended to incur physical injuries approximately two-thirds more of the time than men as a result of the conflict (Archer, 2000). Straus (1986) explained this phenomenon in an earlier cross-sectional study when he compared the trends of violence between husbands and wives in 1975 and 1985. He and other researchers (Follingstad, Wright, Lloyd, & Sebastian, 1991) noted that because men are usually stronger physically than women, the result of their IPA is likely to inflict greater injury and pain. A study using the Conflict Tactics Scale (CTS; Straus, 1979) found that women were more likely than men to throw something, slap, kick, bite, punch, or hit the other with an object, whereas men were more likely than women to beat up, choke or strangle as means of aggression (Archer, 2002). This finding was also confirmed by O'Leary, Barling, Arias, Rosenbaum, Malone, & Tyree (1989). They found that women were more likely than men to use pushing, grabbing, shoving, and slapping as means of IPA against their male partners.

Despite the higher incidence of injury endured by women victims of IPA, Dutton, Nicholls, & Spidel (2005) found that females were just as abusive as males in intimate relationships, and even a little bit more aggressive in younger (under 30 years old) female/male dyads. In addition, the predictors of intimate aggression between males and

females appeared to be similar; including antisocial criminal backgrounds, alcohol abuse, and personality disorders (especially as it impacts intimacy and attachment style (Dutton et al., 2005; Gormley, 2005)). Other research has shown that women tend to engage in aggression toward their partners even in the absence of any partner aggression preceding their behavior (Graham-Kevan & Archer, 2005; Carney, Buttell, & Dutton, 2007). Straus & Gelles (1986) found that over a decade long period (1975-1985), violence against women by their husbands decreased by 22%, whereas severe assaults on husbands by their wives decreased only 4.3%. In addition, a recent nationwide examination of the 10-year arrest trends between the years of 1996–2005 (Department of Justice- Federal Bureau of Investigation (FBI, 2006)) demonstrated that adult men (i.e., over the age of 18) showed a decreased arrest rate of 14% for general aggravated assault, while adult women demonstrated an increased rate of arrest of 5.4% for general aggravated assault. It was also found that the number of females arrested for general criminality *increased* 7.4%, whereas the number of males arrested *decreased* by 7.6%.

College Samples

Early research by Makepeace (1981) examined courtship violence in a sample of 202 college students to determine its incidence and variations, and to identify basic social correlates of the phenomenon. He discovered that violence was occurring at a rate of 20% among the college sample. Straus (2006) sampled 13,601 university students in 32 nations to investigate the assertion that men are the primary instigators of violence in relationships. He found that almost a third of the female and male students physically assaulted a dating partner in the 12-month study period. He also found that there was a rank order pattern of abuse being displayed, with the most common type of abuse being

where both partners were violent toward each other, followed by female-only violence, and then by male-only violence (i.e., being the least common). Additionally, he found that when *dominance* was used by either the male or female partner, there was an increased level of violence associated with it.

Why Women use IPA

Common reasons given for why women use IPA include having witnessed, or being the primary victim of, inter-parental/caregiver abuse, having had a history of using aggression, having had substance abuse issues, and having personality problems such as those appearing in Axis II Diagnostic and Statistical Manual-IV-TR (DSM-IV-TR; APA, 2000) diagnoses (Hines, Brown, & Dunning, 2007; Carney et al., 2007). Additional reasons include: self-defense (Babcock, Miller, & Siard, 2003); being denied of power/resources or being treated unjustly/poorly (Thomas, 2005); seeking tension relief; combating partner nagging; retaliating against a previous assault or emotional abuse; getting her partner to comply with her wishes; and asserting authority (Hamberger, 1997).

Personality, Coping, and Aggression

The constructs of coping and personality have received considerable attention in the psychological literature over the years (Matheny, Aycock, Curlette, & Junker, 1993; Pearlin, Menaghan, Lieberman, & Mullan, 1981; Liu & Kaplan, 2004; Costa, Jr. et al., 2001; Simmons et al., 2005). Specifically, the personality trait of *Neuroticism* has received particular attention in the literature as having a significant relationship to both stress and coping, and aggression (Chochinov, Kristjanson, Hack, Hassard, McClement, Harlos, 2006; Costa Jr. et al., 2001; Simmons et al., 2005; Edmunds, 1977; Ang, Ng, Wong, Lee, Oei, & Leng, 2004), and similarly, a lack of coping resources, such as social

support and tension control, have been found to be related to aggression and personality (Bird et al., 1991; Scarpa & Haden, 2006). As of yet, there have not been any studies examining the relationships among the concepts of personality, coping, and female aggression. This study aims to address this gap in the literature through the following research questions:

Research Questions: (All research questions refer to Female Intimate Partner Aggression)

1. Does the overall coping resource score (CRE) and the personality trait of Neuroticism predict Psychological Aggression?
2. Do the specific coping resources of Tension Control and Social Support and the personality trait of Neuroticism predict Psychological Aggression?
3. Does the overall coping resource score (CRE) and the personality trait of Neuroticism predict Physical Assaultiveness?
4. Do the coping resources of Tension Control and Social Support and the personality trait of Neuroticism predict Physical Assaultiveness?

Method

Participants

Data for this study were collected from 186 heterosexual female students who were primarily at an undergraduate level, and geographically located in the Southeastern part of the United States. Ninety-one percent of the students in the study were between the ages of 18-30, and 8% were between the ages of 31-50. The racial/ethnic breakdown of the participants was as follows: White, not of Hispanic origin- 54%; Black, not of Hispanic origin- 28%; Asian or Pacific Islander- 12%; and Hispanic- 6%. Students were

recruited from an undergraduate research pool using an online system, as well as from an online research company. Participants in the research pool received one class credit for every hour, or part thereof, completed in this study. Credits were automatically generated when the researcher checked the student system to verify that the student completed the research requirement. No incentives of any kind were used with the online research company, so participants completed the study if they found it interesting to them.

Instruments

Three paper and pencil instruments were transformed into online questionnaires so that students could respond to them at their convenience. The three converted tests were the Revised- Conflict Tactics Scale (CTS-2; Straus, Hamby, Boney-McCoy, & Sugarman, 1996), the Coping Resources Inventory for Stress – Short Form (CRIS-SF; Matheny, Curlette, Aycock, Pugh, & Taylor, 2007), and the International Personality Item Pool (IPIP; Goldberg, 1999).

Measure of Aggression

In this study, the CTS-2 (Straus et al., 1996) was used to measure the extent to which partners in a dating relationship engaged in psychological and physical aggression with each other in the past 12 months. The instrument was comprised of 78 questions (i.e., 39 pairs of items), asking what the participant did and what their partners did. The following scales of the instrument were used: Psychological Aggression and Physical Assaultiveness. The approximate test administration time was 12-15 minutes. The internal consistency alpha coefficients of the CTS-2 range from 0.79 to 0.95 (Straus, 2007). Correlations among the CTS-2 scales of Psychological Aggression and Physical Assault for self-report of perpetration indicate $r = 0.67$. In addition, the Flesch grade

level measure (Flesch, 1949) indicated that the CTS-2 required a 6th grade reading ability (Straus et al., 1996).

Measure of Coping Resources

The CRIS-SF (Matheny et al., 2007) is an abbreviated version of the original form of the Coping Resources Inventory for Stress (CRIS; Matheny et al., 1993). Previous studies utilizing the CRIS have included predicting illness, studying emotional distress, personality type, drug dependency, occupational choice, and life satisfaction (Matheny et al., 1993). The CRIS-SF was used in this study, however, to examine the persons' available coping resources for dealing with conflicts without resorting to psychological and physical aggression. Whereas the previous version of the CRIS was comprised of 280 items, broken down into 12 primary scales, 3 composite scales, 16 wellness inhibiting items, 5 validity keys, and an overall score called the Coping Resources Effectiveness (CRE) score, the newer CRIS-SF only contained 70 items, and measured 6 of the previous 12 primary scales and overall resources (CRE). The CRE, as well as two of the six main scales were used in this study: *Tension Control*, which measured the ability of a person to lower stress through relaxation and thought control; and *Social Support*, which measured the availability of family and friends who could act as buffers against stressful life events (Matheny et al., 1993). On the original CRIS, the internal consistency alpha coefficients ranged between 0.86 to 0.97, with test-retest reliabilities over a 30-day period ranging from 0.77 to 0.95. In addition, the internal consistency alpha coefficient for the overall score (CRE) was reported as 0.97, with test-retest reliability being 0.95. In this study, the CRIS-SF internal consistency alpha coefficients ranged between 0.84 for *Tension Control*, to 0.91 for *Structuring*. In addition, the

correlation of the CRIS-SF scales with their corresponding scales on the parent CRIS inventory ranged from 0.78 to 0.96.

Measure of Personality

The IPIP (Goldberg, 2001) is a public domain personality measure comprised of 50-items among 5 scales. It was created to assess the five domain constructs of the NEO-PI-R (Costa, Jr. & McCrae, 1992). The measured domains are: Neuroticism (N); Extraversion (E); Openness (O); Agreeableness (A); and Conscientiousness (C). The personality domain used in this study was Neuroticism. The mean correlation between the scales of the NEO-PI-R (Costa, Jr. & McCrae, 1992) and the corresponding IPIP (Goldberg, 2001) scales is 0.73 (Goldberg, Johnson, Eber, Hogan, Ashton, Cloninger, & Gough, 2006). In addition, the internal consistency alpha coefficients range from 0.77 to 0.86. In this study, participants were asked to read each of the 50 items and rate how well they believe each item describes them, using a 5-point scale (i.e., ranging from very inaccurate to very accurately). Total completion time for the IPIP ranged between 10-12 minutes.

Procedure

All three instruments were converted into online surveys. They were then uploaded on the internet for students to review and see if they wanted to participate in the study. After they read about the study and gave consent to participate, they took approximately 30 minutes to complete all three instruments as well as the demographics questionnaire. All the data was password protected and no identifiable information was gathered, to help ensure confidentiality. Once the data was completely collected, the raw data was saved as a CSV file and imported for analysis through SPSS.

Analyses

The criteria for measuring the magnitude of the correlations found in this study followed Cohen's (1987) guidelines for assessing effect sizes. Specifically, $r = .10$ indicated a small effect size, $r = .30$ indicated a medium effect size, and $r = .50$ indicated a large effect size. Regression analyses were conducted to separately predict the variables of psychological aggression and physical assaultiveness using coping resources and the personality trait of neuroticism.

Results

Table 1

Correlation matrix indicating relationships among Coping Resources, Personality, and Aggression

Subscale	1	2	3	4	5	6
		Students (n = 186)				
1. CRE	-	.62**	.74**	-.68**	-.08	-.01
2. Social Support		-	.28**	-.33**	-.16**	-.14
3. Tension Control			-	-.54**	-.06	.01
4. Neuroticism				-	.23**	.12
5. Psychological Aggression					-	.56**
6. Physical Assaultiveness						-

** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).

The correlational matrix (Table 1) showed significant relationships between psychological aggression and neuroticism ($r = .227$, $p<.01$), and between psychological

aggression and physical assaultiveness (r = .561, p<.01). In addition, significant relationships were also found between psychological aggression and social support (r = -.160, p<.05), neuroticism and tension control (r = -.541, p<.01), neuroticism and social support (r = -.329, p<.01), and neuroticism and CRE (r = -.680, p<.01).

A series of stepwise regression analyses were then conducted to investigate the role of coping resources and the personality trait of neuroticism in predicting psychological aggression and physical assaultiveness. In addressing the first research, the overall CRE score and the personality trait of neuroticism were examined as potential predictors of psychological aggression. Results indicated that only the personality variable of Neuroticism entered the model predicting Psychological Aggression. In this model, the estimated standardized regression coefficient, β, was .227 and r^2 = .052, (t = 3.163, p<.01).

Using psychological aggression again as the dependent variable, the second research question was addressed by using the potential predictors of neuroticism, tension control and social support. Only neuroticism entered the model yielding the same regression model as in the first research question.

Analyses used in examining research questions three and four where physical assaultiveness was the dependent variable yielded non-significant results. Consequently, it appears that it is more difficult predicting physical assaultiveness from psychological variables (i.e., those specific to this study) than predicting psychological aggression.

Exploratory Analyses

As a usual part of the regression analyses, Pearson correlations are computed and reviewed to help with the interpretation of the regression equations. It was observed that

social support had a statistically significant correlation with psychological aggression (r = -.16, p = .03), consequently, the combination of the six coping resource variables were considered as potential predictors of psychological aggression. Two variables entered the prediction model; Social Support (SS) and Self-Directedness (SD). The standardized regression equation is given below:

$$z'_y = -.20\ (SS) + .15\ (SD).$$

Each variable in the model was statistically significant with $\alpha = .05$, and the overall model was statistically significant (F (2,183) = 4.51, p = .012). The unadjusted R^2 was .047. It might also be noted that the Pearson correlation between psychological aggression and self-directedness was non-significant (r = .099, p = .179). Thus, although self-directedness was found to be a non-significant predictor of psychological aggression, it improved the prediction of psychological aggression when combined with social support.

Discussion

This study was designed to examine the effects of the personality variable neuroticism, overall coping resources, as well as the specific coping resources of tension control and social support in predicting psychological aggression and physical assaultiveness, in females. This study extends our knowledge of the following: 1) the relationships among coping resources, neuroticism, and psychological aggression and physical assaultiveness; and 2) the usefulness of coping resources and neuroticism in predicting psychological aggression and physical assaultiveness.

The initial analyses demonstrating the correlations between the variables included in this study showed significant relationships between aggression and neuroticism, and

psychological aggression and physical assaultiveness, as had been found in previous studies (Costa Jr. et al., 2001; Burton et al., 2007; & Straus et al., 1996). Additionally, it was found that aggression and social support were significantly correlated; a finding also found by Scarpa & Haden (2006). Compatible with the research by Lok & Bishop (1999), neuroticism and tension control were found to be significantly correlated; moreover, neuroticism and social support were found to be significantly correlated, a finding reported earlier by Parkes (1986).

The results from this study offered only partial support for the hypothesis suggesting that neuroticism and CRE would predict psychological aggression. Only *Neuroticism* entered the prediction model and accounted for 5.2% of the variance for predicting psychological aggression scores. It was not surprising that Neuroticism was a significant predictor of psychological aggression, as past research studies using similar constructs had found this to be the case (Chochinov et al., 2006; Ang et al., 2004; & Edmunds, 1977).

Contrary to previous research by Scarpa & Haden (2006), Bird et al., (1991), and others, the results of this study did not show tension control without neuroticism to be a significant predictor of psychological aggression or physical assaultiveness. A significant relationship was found however between social support and psychological aggression. Surprisingly, neither overall coping resources nor neuroticism, when examined alone, were found to be significant predictors of physical assaultiveness in heterosexual female IPA relationships. Perhaps better predictor models for physical assaultiveness will have to include a wider set of predictor variables such as biological

measures (Archer, 1994; Brown et al., 1994), behavioral measures (Berkowitz, 1989), and situational events, in addition to the psychological variables considered in this study.

Conclusion

With the incidence of female psychological and physical aggression being on the rise and women demonstrating a growing need for gender based aggression services (Dutton et al., 2005), it seemed reasonable to investigate the relationship between the personality variable of neuroticism, aggression, and the relationship between coping resources and aggression to assist women in getting properly triaged and treated to reduce their aggressive relationships.

The results of this study offer a novel perspective on understanding the construct of female aggression as it relates to neuroticism and coping resources. The major findings from this study indicated that: 1) psychological aggression was better predicted than physical assaultiveness; 2) neuroticism was a better predictor of psychological aggression than overall coping resources and social support, but social support was still related to psychological aggression; 3) self-directedness in combination with social support was also predictive of psychological aggression; and 4) in general, the relationships found were between small and moderate in size.

Implications for practice and treatment

Researchers can use the results of this study as a building block to investigate further relationships between coping, stress, and personality as they relate to female aggression. Straus (2005) suggests, and others agree, ending assaults by women is as necessary as ending assaults by men in order to address the full scale issue of intimate partner aggression. Based on the results of this study, it is recommended that if limited

resources were available for treatment of female aggressors, particular efforts should be made to identify neuroticism, as it has been shown to be linked to psychological aggression, which is a precursor of physical assaultiveness (Straus, 1986). It is also recommended however, that if additional resources became available, treatment should attend to bolstering social support for the individual, as this aspect of coping has been shown to act as a buffer to aggressive behavior.

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