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Witnessing interparental violence : implications for rejection sensitivity and psychological abuse perpetration

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ABSTRACT

WITNESSING INTERPARENTAL VIOLENCE: IMPLICATIONS FOR REJECTION SENSITIVITY AND PSYCHOLOGICAL ABUSE PERPETRATION

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Northern Illinois University, 2018
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Relationship violence not only affects individuals who are directly involved, it can also have an impact on children exposed to interparental conflict. Early exposure to interparental violence may be detrimental to one's development and may further shape the way one understands and approaches future intimate relationships. The current cross-sectional study examined the potential associations between exposure to interparental violence and perpetration of psychological abuse in a college undergraduate sample. Rejection sensitivity was hypothesized to explain the relationship between violence exposure and perpetration of psychological aggression in intimate relationships. Moreover, the role of maternal relationship quality and emotion regulation were examined as potential moderators. Findings indicate that witnessing family-of-origin interparental violence was associated with perpetration of psychological IPV in emerging adult relationships. The indirect effect of childhood interparental violence on psychological IPV perpetration through rejection sensitivity was also significant. However, the moderating effects of maternal warmth and emotion regulation difficulties were not supported. Implications of these findings and limitations of the current study are discussed.

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WITNESSING INTERPARENTAL VIOLENCE: IMPLICATIONS FOR REJECTION
SENSITIVITY AND PSYCHOLOGICAL ABUSE PERPETRATION

BY

MIKHAELLA ANGELA HODGES
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Thesis Director
Michelle Lilly

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CHAPTER 1

INTRODUCTION

Violence within intimate partner relationships is a major public health issue and affects millions in the United States regardless of age, race, and income level. Intimate partner violence (IPV) is characterized as physical, psychological, or sexual harm by a spouse or current or former partner (Black et al., 2010). Recent prevalence rates indicate that as high as one in four people experience IPV victimization within their lifetime (Breiding, Black, & Ryan, 2008). Exposure to IPV has been linked to a broad range of adverse mental and physical health consequences, including depressive symptoms, substance use, and physical injuries (Coker et al., 2002). Given the pervasive and destructive impact of IPV, understanding the underlying processes that lead one to engage in violence toward an intimate partner remains a crucial focus for psychological research.

Intimate relationship violence does not exclusively affect partners but may also have an impact on children exposed to violence. Children who witness IPV are at risk for a host of social, physical, and psychological health problems (Carlson, 2000). Moreover, exposed children are more likely to engage in aggressive behavior compared to those without exposure to interparental IPV (Hazen, Connelly, Kelleher, Barth, & Landsverk, 2006) and are also at increased risk for partner violence later in life (Stith et al., 2000). Further, the literature studying the link between childhood exposure to interparental violence and dating violence in adulthood has traditionally focused on physical aggression, but there is considerably less attention on

psychological aggression. It may be that there is an assumption that psychological abuse is not as serious as physical abuse for victims, as the latter confers risk for physical injury. However, recent research has found that psychological IPV was as strongly associated with the majority of adverse health outcomes as physical IPV (Coker et al., 2000). Furthermore, psychological abuse perpetration has been found to predict later physical violence perpetration (Baker & Stith, 2008; O'Leary, 1999). Thus, it is essential to study psychological IPV as a construct separate from physical IPV, as this research could inform prevention and treatment efforts for partner aggression more broadly.

Given the consequences linked to IPV exposure, it is imperative to understand the etiology and mechanisms influencing IPV perpetration among young adults. Rejection sensitivity is examined as the social-cognitive processing system that could explain the relationship between exposure to interparental IPV and psychological aggression in later romantic relationships. This construct is characterized as the tendency to readily perceive and excessively react to rejection cues from others (Downey & Feldman, 1996). Individuals with increased sensitivity to rejection cues have been found to often respond to perceived rejection with increased aggression as well as hostile thoughts and actions (Ayduk, Downey, Testa, Yen, & Shoda, 1999; Ayduk, Gyurak, & Luerssen, 2008). Thus, those who are hypervigilant toward rejection cues in interpersonal interactions behave defensively once rejection is perceived, which may in turn lead to engaging in aggressive behaviors. Rejection sensitivity has previously been supported to mediate the relationship between interparental IPV exposure in childhood and IPV perpetration in adulthood (Moretti, Obsuth, Odgers, & Reebye, 2006). The current study attempted to replicate this relationship.

Moreover, several protective factors were examined that may moderate the link between

interparental IPV exposure and psychological aggression. First, maternal warmth was examined as a possible moderator of the link between interparental IPV exposure and rejection sensitivity. Exposure to family violence and poor relationships between parent and child are associated with increased expectations of rejection in adolescence and young adulthood (Downey, Bonica, & Rincon, 1999), and maternal warmth in particular has been linked with positive outcomes in the presence of interparental violence (Piotrowski, 2011). It may be that warm and caring relationships between mother and child may mitigate the effects of exposure to interparental IPV on later rejection sensitivity.

Second, the ability to regulate one's emotions may enable one to refrain from engaging in aggressive behavior in the face of interpersonal conflict. Having the capacity to regulate negative affect and control impulses may be particularly beneficial for those who are vulnerable to excessively or inaccurately perceiving rejection from others. Young adolescents have been found to be less successful at regulating emotions when responding to aversive images, especially if they had increased levels of rejection sensitivity (Silvers et al., 2012). This suggests that increased capacity to regulate one's emotions may be a protective factor against psychological aggression in relationships despite having an increased sensitivity to rejection cues.

The current study sought to understand how exposure to early interpersonal violence is associated with perpetration of violence in intimate relationships, especially psychological aggression, and whether rejection sensitivity, maternal warmth, and emotion regulation influence the intergenerational transmission of violence.

CHAPTER 2

LITERATURE REVIEW

Intimate Partner Violence (IPV)

IPV is a significant social issue affecting millions in the United States alone. Violence in intimate relationships is also referred to as domestic violence, spousal or partner abuse, marital violence, relationship aggression or violence, and dating violence. Essentially, it describes a pattern of abuse and coercive behaviors used by a partner in an intimate relationship to gain power and control over the other person (Dobash & Dobash, 1978). IPV can be further differentiated as physical or psychological aggression. Physical aggression can include, but is not limited to, slapping, punching, kicking, biting, choking, shocking, burning, and/or using a weapon against one's partner. Psychological aggression can include humiliating, controlling, withholding information, embarrassing, isolating from family and friends, and/or denying access to money or basic resources.

Violence in intimate relationships was brought to national attention in the 1970s as a serious social issue, which prompted research to try to understand the etiology, course, and interventions for partner violence (Finkel & Eckhardt, 2011). Prevalence and risk factors associated with IPV perpetration and victimization were investigated and eventually led to research concerning key mechanisms underlying IPV perpetration and continued to advance the theoretical knowledge of this phenomenon. Even with these advances in research, prevalence rates demonstrate that intimate partner violence remains a pervasive issue in the United States.

Schafer, Caetano, and Clark (1998) interviewed a sample of 1,599 married and cohabitating couples from across the United States and found that at least one act of IPV was experienced by one out of six couples every year. A random-digit-dialed telephone survey assessing 70,000 respondents in 2005 demonstrated that approximately one in four women and one in seven men reported some form of IPV victimization within their lifetime (Breiding et al., 2008).

Likewise, comparable rates of perpetration were found among young adults in dating relationships. A survey study involving 910 undergraduate college students recruited from three urban universities examined the prevalence of interpersonal violence before and during college and found that of those who experienced physical, emotional, and sexual violence, 42.1% reported victimization and 17.1% reported perpetration of at least one type of violence (Forke, Myers, Catalozzi, & Schwarz, 2008). Moreover, of the 227 undergraduate students who experienced any type of violence during college, 130 had experienced partner violence. A large multinational study comprised of 31 universities from 16 countries found that, on average, 29% of students engaged in physical aggression against a partner within the last year (Straus, 2004).

Although there is considerable research on IPV, psychological aggression continues to be understudied in violence research. In addition, literature examining the link between childhood violence exposure and later violence perpetration has traditionally focused on physical aggression (O'Leary, 1999). In contrast to physically aggressive behaviors that intend to harm an intimate partner, the intent of psychological aggression is to threaten the partners' self-worth and purposefully incite fear (Lawrence, Yoon, Langer, & Ro, 2009).

Psychological aggression appears prevalent among college-aged adults. In one study of 623 college women, more than 75% reported being a target of psychological abuse from an intimate partner within the last six months (Neufeld, McNamara, & Ertl, 1999). Harned (2002)

found that in a large sample of 874 college students in dating relationships, 87% of men and 82% of women reported experiencing psychological aggression from partners. Given the high prevalence among young adults, extending research on psychological abuse perpetration could aid in understanding possible contributing factors that result in maladaptive behaviors within undergraduate dating relationships.

Moreover, psychological abuse perpetration has been found to be a precursor to physical violence (O'Leary, 1999). Baker and Stith (2008) found evidence among an undergraduate college sample indicating that experiencing psychological aggression from one's partner is a predictor of later perpetrating physical aggression. Dating violence in young adult relationships has additionally been found to be a strong predictor of later marital violence (White, Merrill, & Koss, 2001). Thus, psychological aggression remains an important area of research for understanding the course and development of violence in close relationships that could result in a cycle of violence continuing from young adulthood into relationships in later adulthood.

Although much progress has been made in IPV research toward prevention and intervention efforts, violence in intimate relationships continues to be a pervasive and serious social issue, even among young adult relationships. Likewise, few studies have examined the impact of interparental IPV exposure and IPV perpetration focused exclusively on psychological aggression. Given that psychological aggression has been linked with subsequent physical aggression (Baker & Stith, 2008; O'Leary, 1999), understanding processes related to psychological IPV perpetration could better inform treatment and intervention policies targeting IPV.

Physical and Mental Health Outcomes of IPV

Experiencing violence from partners is associated with negative health consequences, and victims are at increased risk for morbidity and mortality. Individuals with a history of IPV have poorer perception of their health and are more likely to experience higher rates of health problems (Coker et al., 2000). A study by Campbell and colleagues (2002) on a sample of 2,005 women found that compared to women who have never been abused, abused women have a 50% to 70% increase in gynecological, central nervous system, and stress-related medical problems. Some of the most common physical complaints from women who experienced physical and verbal abuse included headaches, insomnia, choking sensations, hyperventilation, gastrointestinal symptoms, chest pain, back pain, and pelvic pain (Dutton, Haywood, & El-Bayoumi, 1997).

Furthermore, IPV is associated with adverse mental health outcomes. Women with a history of IPV in the United States have a three to five times greater likelihood of developing posttraumatic stress disorder (PTSD), depression, suicidality, and substance abuse than nonvictims (Golding, 1999). In a Spanish study involving 130 female victims of IPV, women who were physically and psychologically abused had a higher occurrence and severity of symptoms related to depression, anxiety, and PTSD and increased thoughts of suicide compared to a nonabused control group of women (Pico-Alfonso et al., 2006). Data drawn from the U.S. National Comorbidity Survey Replication compared male and female victims of IPV and found male victims were more likely to experience externalizing disorders (e.g., disruptive disorders and substance use disorders), while female victims were more likely to experience internalizing disorders (e.g., anxiety disorders) (Afifi et al., 2009). From a community sample of 637 women in Tennessee, 23% of abused women reported a suicide attempt at some point in their lives

compared to 3% of women without a history of IPV (Seedat, Stein, & Forde, 2005).

Focusing particularly on psychological aggression, recent studies have found that psychological IPV is just as strongly associated with the majority of adverse health outcomes, even when controlling for physical IPV exposure (Coker et al., 2000). Victimization by psychological aggression has been linked with reduced self-esteem, depression, fearfulness, decreased sense of autonomy, and heightened risk of suicide (Coker et al., 2002; O'Leary, 1999; Sackett & Saunders, 1999). Given the detrimental effects of psychological aggression, identifying the factors that contribute to its perpetration in intimate relationships is of critical importance.

Children Exposed to Interparental IPV

Not only does relationship violence affect partners, but it also impacts children. McDonald, Jouriles, Ramisetty-Mikler, Caetano, and Green's (2006) study examined family violence in a nationally representative sample and found that of 1,615 families consisting of two parents, 29% of children had witnessed violence between parents at least once in the previous year. Notably, the occurrence of IPV within this sample was reported as higher among couples with children compared to those without children.

Children exposed to parents engaging in aggressive behavior toward one another are at increased risk for a host of psychological, social, and physical health consequences. Adverse outcomes include depression, anxiety, poor school performance, poor health, disturbed sleep, and stunted physical growth (El-Sheikh, 2005; Huth-Bocks, Levendosky, & Semel, 2001; McCloskey & Walker, 2000). Graham-Bermann and Levendosky (1998) assessed the traumatic stress symptoms of a community sample of 64 children aged 7 to 12 years who had been exposed

to interparental violence. They found that 13% of the children met diagnostic criteria for PTSD, and of these children, over 50% met the symptom criterion for intrusive thoughts, 20% exhibited avoidance of trauma-related stimuli, and 40% experienced hyperarousal symptoms related to witnessing interparental violence.

A meta-analysis of 68 studies on the relationship between exposure to interparental violence and children's externalizing and internalizing problems demonstrated large effect sizes (.68 when considering significant findings) supporting the negative effect of interparental conflict on children's development (Buehler et al., 1997). A recent study found that college students' memories of interparental IPV during childhood were related to psychological distress in emerging adulthood (Cusimano & Riggs, 2013). It is, therefore, essential to continue research on identifying factors that lead to, as well as protect against, exposure to family violence to reduce the negative consequences on children's wellbeing and psychosocial development into adulthood.

Intergenerational Transmission of Intimate Partner Violence

Early exposure to violence and maltreatment in the home has also been linked to aggression in subsequent dating relationships. A study conducted by Whitfield, Anda, Dube, and Felitti (2003) examined the relationships among childhood maltreatment, exposure to mother's IPV victimization during childhood, and risk of IPV in adulthood among 8,629 adults recruited from a large health care setting. Results indicated an increased risk of IPV victimization among women and an increased risk of IPV perpetration among men, especially for those who witnessed high rates of maternal physical abuse victimization. Additionally, Milletich, Kelley, Doane, and Pearson (2010) examined childhood exposure to interparental violence (i.e., assessed

mother-to-father and father-to-mother perpetration of violence) and the perpetration of physical aggression in dating relationships among a college sample of men and women. Findings suggest that witnessing greater same-sex interparental violence (i.e., a female participant reporting witnessing greater mother-to-father violence) was associated with increased frequency of physical aggression toward a romantic partner for both genders. Results demonstrate that expectations within romantic relationships may be learned at an early age through observing how parents interact with one another.

The intergenerational transmission of violence, or the association between exposure to interparental violence and violence in later intimate relationships, has been well established in the research literature (Ehrensaft, Moffitt, & Caspi, 2004; Stith et al., 2000). It may be that children who are exposed to interparental violence have an increased propensity for aggression in interpersonal interactions and view violent behavior as normative. For example, children who witness IPV have been shown to engage in increased aggressive behavior compared to those who do not have a history of IPV exposure (Hazen et al., 2006). McDonald, Jouriles, Tart, and Minze (2009) recruited 258 children ages 8 to 12, along with their mothers, from domestic violence shelters and found that both fathers' and mothers' perpetration of interparental violence was associated with significant externalizing problems among children. Moreover, Baldry (2003) found that exposure to interparental physical violence was associated with bullying of peers among elementary and middle school students. Specifically, children were more likely to have difficulties in relationships with others, engage in rule breaking, and demonstrate irritability and hostility.

Furthermore, extensive research has shown a strong association between childhood exposure to IPV and heightened risk for partner violence (Stith et al., 2000). Kinsfogel and

Grych (2004) found that adolescents who were exposed to parental conflict were more likely to accept that aggression was justifiable behavior in romantic relationships, believed that aggression was common in peer relationships, and had increased difficulty with anger management.

Ehrensaft and colleagues (2003) investigated how early violence exposure, parenting behaviors, and maltreatment among 543 children, starting at approximately 13 years old and followed over a 20-year period, led to risk of subsequent partner violence. Observing negative family interactions at an early age, therefore, appears to serve as a significant risk factor for later maladaptive interpersonal behavior. In the current study, I examined how witnessing aggression and violence between parents could be specifically related to psychological abuse perpetration in romantic relationships.

Considering the types of interparental violence exposure, psychological and physical, a study by Black, Sussman, and Unger (2010) found support for the intergenerational transmission of violence for the same form of violence linking exposure to early interparental violence and subsequent experience of IPV in intimate relationships. That is, a significant positive correlation was supported for similar forms of interparental violence exposure (parents engaging in psychological abuse with one another) and later experience of IPV in intimate relationships (psychological dating violence), whereas different types of violence, psychological interparental violence and physical IPV in dating relationships, were not significantly related. However, there is limited evidence supporting this relationship in literature. Research on the intergenerational transmission of violence either focuses on both forms of interparental violence or just physical violence (Evans, Davies, & DiLillo, 2008; Kitzmann, Gaylord, Holt, & Kenny, 2003; Mohr, Noone Lutz, Fantuzzo, & Perry, 2000); therefore, both forms of interparental violence were measured in the current study.

Rejection Sensitivity

Understanding the processes and causal links that underlie the transmission of violence from one generation to the next is debated in psychological research. Despite the well-established link between witnessing interparental violence and the development of relational aggression, the mechanisms underlying this effect are not well understood. The present study suggests that rejection sensitivity may potentially explain the relationship between exposure to interparental IPV and perpetration of psychological aggression.

Rejection sensitivity is a social-cognitive processing system that is characterized as the tendency to readily perceive and excessively react to rejection cues from others (Downey & Feldman, 1996). Observing how parents manage relationship conflict and anger may likely affect children's emotional development and has negative implications for establishing healthy romantic relationships later in life (Kinsfogel & Grych, 2004). Moreover, exposure to interparental IPV impacts children's cognitive development by acquiring a maladaptive view to readily interpret ambiguous social information as threatening. Overall, childhood exposure to early rejection may lead to a predisposition to be vulnerable to, and anxiously expect, rejection from others (Downey, Irwin, Ramsay, & Ayduk, 2004). Thus, hypervigilance to rejection can create a defensive system that in turn could lead to aggressive behavior toward others. Individuals with this increased sensitivity have been found to often respond to rejection cues with increased aggression as well as hostile thoughts and actions (Ayduk et al., 1999, 2008).

Hafen, Spilker, Chango, Marston, and Allen (2014) examined the trajectory of rejection sensitivity across mid-to-late adolescence. Findings showed that increased levels of rejection sensitivity during adolescence decreased the likelihood of being in a relationship by early

adulthood. Moreover, those with greater rejection sensitivity in adolescence who were currently in relationships showed poorer relationship functioning. Although relationship violence was not measured, the study suggests that increased rejection sensitivity was related to poorer relationship health and greater negativity, which could be related to the presence of relationship aggression in at least some cases.

In addition, Brown, James, and Taylor (2010) found support for a model illustrating how rejection sensitivity leads to relationship violence. Sixty-six men recruited from domestic abuse programs were assessed for childhood and partner rejection experiences, rejection sensitivity, and perpetration of psychological and physical abuse against partners. Their results suggest that men who have experienced early rejection in their families or rejection with past romantic partners become sensitive to rejection in later relationships. The proposed model suggests that men who are sensitive to interpersonal rejection perpetrate IPV because they have a defensive reaction when they experience a threat. This defensive reaction against perceived threat may ultimately result in physical or psychological aggression.

Previous research by Moretti, Bartolo, Craig, Slaney, and Odgers (2014) supports the mediating relationship of rejection sensitivity on interparental violence exposure and perpetration of relationship aggression. The longitudinal study investigated maternal and paternal perpetrated interparental violence exposure on girls' risk of perpetrating aggression in romantic relationships. Adolescent girls ($N = 139$) ages 13 to 19 years old were recruited from a juvenile detention center and assessed for interparental violence exposure, maltreatment exposure, rejection sensitivity, and perpetration of aggression toward romantic partners. Findings suggest that adolescent girls who were exposed to their mothers' violence (physical and psychological) toward partners experienced increased sensitivity to rejection, which in turn was related to

greater perpetration of violence in their romantic relationships. However, this relationship has not been examined in an undergraduate dating sample or with men. The current study further extended this research by including both genders as well as having a particular focus on perpetration of psychological abuse.

Given the risk for perpetrating violence against an intimate partner, several protective factors were explored that provided insight into what elements buffer against the perpetuation of IPV from childhood into adulthood. In view of the social-cognitive model of rejection sensitivity in explaining the link between early violence exposure and later perpetration of psychological abuse, factors such as nurturing and high-quality mother-child relationships along with an increased capacity to regulate emotions and inhibit impulses could work to produce buffering effects. That is, these moderating factors may potentially reduce risk for perpetrating psychological abuse in close relationships, indicating potential targets for IPV interventions.

Maternal Warmth

Maternal warmth is characterized by a nurturing and caring relationship between the mother and child. Poor-quality family relationships, in general, put children at-risk for problems in multiple domains, including children's stress reactivity and regulation (Rhoades, 2008). Conversely, supportive and high quality relationships with a parent have been found to protect children from developing adverse behavioral problems (Masten & Coatsworth, 1998). Thus, a child's relationship with a parent may provide buffering effects from early adverse experiences and outcomes.

Lucas-Thompson and Granger (2014) examined the impact of interparental conflict (e.g., verbal anger, withdrawal, and defensiveness) and parent-child relationships on adolescents'

stress responses. Adolescents aged 10-17 years ($N = 153$) and their parents were assessed for exposure to marital conflict, parent-child relationship quality, and physiological stress responses. Results indicate that a child's relationship with his or her parents moderated the relationship between marital conflict and stress reactivity. Low quality parent-child relationships in the presence of marital conflict were related to poorer stress responses and physiological dysregulation. Parents' lack of warmth and support were specifically related to more sensitive stress responses. Thus, high quality parent-child relationships could be a potential protective factor against developing poorer stress responses among those with early exposure to family conflict. In place of the measure of stress responses utilized in this research, the current study examined stress as it relates to increased sensitivity and hypervigilance to rejection cues in interpersonal relationships. Additionally, this study assessed for marital conflict, which differs from interparental violence. Interparental violence can include more extreme forms of aggressive behaviors. Marital conflict does not necessitate violence, but interparental violence can encompass conflicts and disagreements between parental caregivers. Thus, high quality parent-child relationships, and greater maternal warmth in particular, may also have a mitigating effect in the aftermath of violent parental interactions.

Moreover, research by McDonald, Bowker, Rubin, Laursen, and Duchene (2010) examined the moderating role of supportive parent-child relationships and friendships between rejection sensitivity and depression in adolescents. The longitudinal study recruited 277 adolescents (47% male) from the community. The researchers found that when adolescents with high levels of rejection sensitivity had less supportive relationships with parents or friends, there was an increase in depressive symptoms. The study provides additional evidence that supportive and positive parent-child relationships potentially buffer rejection sensitive individuals from

negative outcomes.

Maternal warmth, in particular, has been supported to protect children who are at risk of developing externalizing problems when exposed to father's IPV perpetration. Skopp, McDonald, Jouriles, and Rosenfield (2007) recruited 157 mothers and their children, aged seven to nine years, from the community. The mothers and children were separately interviewed and completed additional measures assessing for exposure to father-to-mother perpetration of physical violence, reports of externalizing behaviors, and parent-child relationship quality. Findings suggest that when children reported on their own conduct problems, higher levels of maternal warmth toward the child were associated with a reduction in the relationship between father's perpetration of IPV and child's externalizing problems, thereby further supporting that maternal warmth may serve as a protective factor.

Research on parental warmth has primarily focused on mother-child relationships when examining protective factors associated with family violence (Graham-Bermann, Gruber, Howell, & Girz, 2009; Piotrowski, 2011). Less is known about the impact of paternal warmth in mitigating the effects of interparental violence on children's outcomes. In fact, paternal warmth, in cases of father-to-mother interparental violence, have been shown to have an opposite effect. That is, children who are exposed to father-to-mother violence with supportive father-child relationships tend to engage in more externalizing problems (Skopp et al., 2007). It appears that supportive and caring relationships between a mother and child play an important protective role in children's adjustment, even when the child is exposed to violent parental relationships. Therefore, maternal warmth was examined in the current study.

Although parental warmth, particularly maternal warmth, has focused on developmental outcomes for children, supportive and nurturing mother and child relationships have not been

previously examined to moderate the link between exposure to interparental violence and increased rejection sensitivity in undergraduate students. Research supports that exposure to family violence along with parental emotional neglect and conditional love by parents has been associated with increased expectations of rejection in adolescence and young adulthood (Downey et al., 1999). Therefore, having a close and nurturing relationship with one's parents, especially with the mother, may be a protective factor deterring negative outcomes for young adults, such as decreasing sensitivity to rejection, despite having a history of witnessing interparental IPV.

Emotion Regulation

Emotion regulation is the ability to control one's emotions by inhibiting aggressive or angry impulses, suppressing negative affect, or having the ability to calm oneself (Smith et al., 2011). Dysregulated emotions and impulses have been associated with engaging in aggressive behavior (Bushman, Baumeister, & Phillips, 2001; Lilly & Mercer, 2012; McNulty & Hellmuth, 2008). Bushman et al. found that expressing anger and acting aggressively may be due to an effort to regulate one's negative affect. Moreover, Price, Bell, and Lilly (2011) demonstrated that negative partner attributions predicted greater IPV perpetration under conditions of increased emotion regulation difficulties among women. Thus, those who struggle with and require more effort to control their emotions may be more susceptible to engaging in partner aggression to decrease negative affect and may be less able to curb impulsive and destructive behavior. An increased ability to regulate one's emotions may therefore serve as a protective factor against perpetrating psychological aggression under high levels of rejection sensitivity.

Ayduk and colleagues (2000) examined the moderating role of self-regulation in the link

between rejection sensitivity and negative outcomes. The ability to self-regulate was assessed through a delay of gratification task that measured the ability to inhibit temptation for an immediate small reward to gain access to a later larger reward. The longitudinal study showed that participants having difficulties delaying gratification at age four predicted increased negative self-perception, substance use, ineffective coping, and low achievement in education at age 25 to 35. Notably, this relationship was particularly salient for those with increased levels of rejection sensitivity as young adults. The study provides evidence that the ability to exert self-control might be effective in mitigating the effects of rejection sensitivity.

Moreover, Silvers and colleagues (2012) investigated developmental changes in the ability to regulate emotions, as well as changes in rejection sensitivity, among adolescents and young adults. Adolescents and young adults aged 10-23 years ($N = 77$) were asked to respond to various aversive and neutral social images, which involved social interactions with other people and nonsocial images. Participants were tasked to engage in a reappraisal strategy to reduce negative reactions to the image. Evidence from this study suggests that adolescents had a decreased capacity to regulate emotional responses to social stimuli if they also had increased sensitivity to rejection. Results support the contention that the ability to regulate emotions during social interactions may be advantageous for those who have an increased tendency to perceive rejection and this could potentially inhibit aggressive behaviors. Of interest to the current study was examining whether this phenomenon extends to an undergraduate college sample with a distinct focus on monitoring psychological IPV perpetration.

Further, Stuart, Moore, Hellmuth, Ramsey, and Kahler (2006) examined the motives to perpetrate relationship aggression among women who had been arrested for domestic violence. Women ($N = 87$) were recruited from violence intervention programs and assessed for violence

perpetration, victimization, and reasons for perpetrating violence. Results indicated that poor self-regulation of emotions, retaliation for past violence, and provocation by one's partner were the most common reasons for violence perpetration. However, emotion regulation was only assessed as a single item on a measure as one of the reasons for perpetration and not measured with a separate instrument. The current study expanded on this research by assessing emotion regulation and whether having increased regulatory capabilities would buffer the relationship between rejection sensitivity and IPV perpetration among men and women.

The ability to regulate emotions may be beneficial for those who are more vigilant to rejection cues in close relationships because down regulating negative reactions and emotions may inhibit impulses to aggress against another person. The current study examined whether having greater ability with regulating emotions under conditions of heightened sensitivity to rejection might potentially inhibit perpetration of psychological abuse among undergraduate students.

Current Study

Efforts to elucidate and understand violence in intimate relationships remain an important objective for psychological research. Not only does experiencing violence in close relationships incur a great personal and societal cost, violence affects children exposed to interparental conflict. Children who witness IPV are vulnerable to a host of negative long-term outcomes, including enhanced risk for perpetrating violence in later romantic relationships. One mechanism to explain the intergenerational transmission of violence may be the tendency to readily perceive and excessively react to rejection cues in close relationships that develop in the aftermath of early exposure. This sensitivity to rejection can increase risk to aggress against an

intimate partner.

Several factors were examined that had the potential to mitigate the effects of early violence exposure on later intimate partner violence perpetration. First, relationship quality with the mother was examined as moderating the relationship between exposure to interparental IPV and sensitivity to rejection. Second, emotion regulation was examined as moderating the link between rejection sensitivity and perpetration of psychological aggression. These factors had not been previously studied in relation to perpetration of psychological aggression and will be informative for interventions and treatments for those exposed to interpersonal violence.

Hypotheses

First, it was hypothesized that increased exposure to interparental violence would correlate with high levels of psychological abuse perpetration in romantic relationships. Second, it was anticipated that exposure to interparental violence and psychological abuse perpetration in romantic relationships would be mediated by rejection sensitivity. Third, exposure to interparental violence would be less strongly associated with rejection sensitivity under conditions of increased maternal warmth. Lastly, sensitivity to rejection would be less strongly associated with perpetration of psychological aggression under conditions of increased ability to regulate emotions. The proposed moderated mediation model is depicted in Appendix A. The effects of specific forms of interparental IPV (i.e., psychological versus physical abuse) on perpetration in adulthood, as well as the indirect and moderated indirect effects hypothesized above, were examined as research questions given the paucity of previous research linking specific forms of interparental IPV to later forms perpetration.

CHAPTER 3

METHODS

Participants

Participants were undergraduate students enrolled in psychology courses at Northern Illinois University and who were offered course credit for completion of study surveys. Participants had to meet the criteria of being at least 18 years of age and currently involved in a romantic relationship or had been involved in a romantic relationship within the past six months. The sample consisted of 203 undergraduate students. A total of 285 participants completed the study; however, only 71.23% were retained for data analysis. Seventy cases were removed for failing at least one of the three attention checks that assessed whether participants were paying attention to the instructions and ensuring valid responses on the questionnaires. Further, 12 participants were removed due to incomplete or limited data on key study variables. Invalid responders were significantly older, $t(281) = -2.76, p = .01$, and more likely to be non-European-American, ($\chi^2 [6] = 31.62, p < .001$).

In the retained sample, participants ranged in age from 18 to 24 ($M = 19.19, SD = 1.24$). Regarding gender, 63% of participants identified as female ($n = 128$), whereas 37% of participants identified as male ($n = 75$). A little over half of the participants were European-American (52%, $n = 106$), 20% were African-American ($n = 41$), 14% were Hispanic ($n = 28$), 2% were Asian ($n = 3$), and 12% identified as biracial or other ($n = 25$). Regarding relationship status, a little over two-thirds of the participants indicated they were in a dating relationship

(68%, $n = 137$); 7% were dating and living with a partner ($n = 15$); 1% were married ($n = 1$); and 24% were previously in a relationship within the past 6 months ($n = 50$). The average length of relationship was approximately a year and a half but ranged from 1 to 96 in months ($M = 17.38$, $SD = 15.20$). The majority of the participants identified as heterosexual ($n = 187$, 92%), while the rest identified as bisexual ($n = 11$, 5%), gay or lesbian ($n = 4$, 2%), or other ($n = 1$, 1%).

The status of the participants' biological parents' relationship of the sample was as follows: 48% of participants reported their parents were married ($n = 97$), 25% were divorced ($n = 51$), 15% were separated ($n = 30$), and 3% were living together ($n = 6$). Some participants indicated 'other' as their parents' relationship status (9%, $n = 19$, e.g., widowed or never married). Most participants identified their mother-figure as their biological mother (90%, $n = 182$), 2% as their stepmother ($n = 3$), 1% as their father's girlfriend ($n = 1$), 2% as their grandmother ($n = 4$), and 6% as 'other' ($n = 12$, e.g., adoptive mother or godmother). Most of the participants identified their biological father as the primary father-figure (73%, $n = 149$), 10% as their stepfather ($n = 21$), 2% as their mother's boyfriend ($n = 4$), 2% as their grandfather ($n = 3$), and 6% as 'other' ($n = 13$, e.g., adoptive father or godfather).

Procedures

Participants were recruited during the Spring 2016, Fall 2016, and Spring 2017 semesters. Undergraduate students enrolled in an introductory psychology course were able to sign up for the study through the SONA participant management system where they were presented with information about the study. Interested participants were able to complete the online survey by following the survey link provided on the study page in SONA. The consent document and questionnaires were available through a link using Qualtrics, the host website of

the survey software. Participants were informed about the study details, and the informed consent was provided electronically. All participants completed an informed consent document online that described the risks and benefits involved with the study. After obtaining consent, participants were then directed to a series of online questionnaires. Completion time was approximately 60 minutes.

Following questionnaire completion, the participants were provided with debriefing information outlining the purpose of the study, thanked for their participation, and given researcher and IRB contact information as well as a list of resources for use in the event of psychological distress. See Appendices B, C, and D for a copy of the SONA study page description, informed consent, and debriefing form with a list of resources, respectively.

Measures

The present study was a cross-sectional design using self-report questionnaires. The dependent variable was perpetration of psychological intimate partner violence. The independent variables were exposure to interparental violence, rejection sensitivity, emotion regulation difficulties, and maternal warmth. The Institutional Review Board of Northern Illinois University approved the procedures for the study. Appendix E outlines how measures were purchased and whether first author permissions were obtained to grant use of copyrighted materials.

Demographics

The demographics survey collected information regarding age, race, gender, ethnicity, education, and occupation (see Appendix F). Additionally, relationship information was

collected that indicated whether a participant was currently in a relationship or had been in a relationship in the past six months. Length of most recent relationship and sexual orientation were also assessed. Additional questions inquired about the participants' parental relationships and home life (e.g., biological parents' marital status) and identified the primary mother-figure and father-figure.

Exposure to Interparental Violence

The Revised Conflict Tactics Scale (CTS2; Straus, Hamby, Boney-McCoy, & Sugarman, 1996) adapted version is a 62-item measure that assesses exposure to interparental violence (see Appendix G). Students' appraisal of interparental violence was measured by having participants report on various psychologically and physically aggressive behaviors in which each parent had engaged against the other parent during the participants' childhood. The participants reported on the frequency of each incident that occurred while growing up on a scale that ranges from 0 (*Never*) to 6 (*More than 20 times*). A few examples of items include "My mother insulted or swore my father," "My father destroyed something belonging to my mother," and "My mother slapped my father." Subscales used in the present study include physical violence and psychological violence. Higher scores indicate greater violence between parents. A moderate to high internal consistency was demonstrated across scales that ranged from $\alpha = .79$ to $.95$ in the original sample (Straus et al., 1996). Previously cited studies utilizing the adapted CTS2 for assessing exposure to interparental violence have demonstrated strong psychometric properties, with an internal reliability of $\alpha = .90$ to $.91$ for the perpetration of mothers' IPV, and $\alpha = .88$ to $.93$ for the perpetration of fathers' IPV (Kinsfogel & Grych, 2004; Milletich et al., 2010). One of the advantages of the adapted measure is capturing each parent's perpetration and victimization

of violence. The measure demonstrated adequate reliability in the present study ($\alpha = .96$).

Before the administration of the adapted CTS2, a brief survey was given to distinguish the primary father-figure and mother-figure involved when the participant witnessed interparental violence. Participants were asked to identify a year when interparental violence was more salient during childhood. Prevalence and frequency rates were obtained from the participant raw data as suggested by Straus (2004). The prevalence score indicates whether one or more acts of interparental violence were witnessed during the year this form of violence exposure was the worst. A score of 1 indicates that one or more acts of violence occurred in that year, and a score of 0 indicates no act of interparental violence was witnessed during childhood.

The frequency score refers to the total acts of interparental violence witnessed by the respondent in the referent period. The total frequency score was created by setting midpoints for each response category (i.e., 1 coded to 1, 2 to 2, and midpoints for 3 through 6 were coded as follows: 3 to 4, 4 to 8, 5 to 15, 6 to 25). The item midpoints were then summed and provided the assumed number of witnessed violence.

Perpetration of Psychological Aggression

The Multidimensional Measure of Emotional Abuse (MMEA; Murphy & Hoover, 1999) was used to measure perpetration of psychological abuse against one's romantic partner (see Appendix H). Murphy and Hoover define psychological aggression as consisting of coercive or hostile behaviors that emotionally harm or threaten to harm an intimate partner. Participants responded to 27 items by reporting frequency of each incident, with high scores indicating greater occurrence of perpetration of psychological aggression. Participants reported on frequency of each incident that occurred within the last six months with their current partner or

within the last six months of a recent relationship with an ex-partner. The scale ranged from 0 (*Never*) to 6 (*More than 20 times*). A few examples of items include “Secretly searched through your partner’s belongings,” “Complained that your partner spends too much time with friends,” and “Called your partner worthless.”

Subscales for the MMEA include Restrictive Engulfment, Denigration, Hostile Withdrawal, and Dominance/Isolation. Restrictive Engulfment refers to behaviors that restrict and isolate one’s partner and exhibit jealousy or possessiveness. Denigration indicates engaging in behaviors that degrade or humiliate one’s partner. Hostile Withdrawal includes behaviors that create tension to relationship stability by disengaging in the relationship or withdrawing emotionally. Dominance/Isolation encompasses behaviors that elicit fear or submission in one’s partner by making threats or destroying property. The current study assessed overall psychological abuse perpetration. The measure has previously shown good internal consistency, ranging from .79 to .90 across subscales, and has demonstrated good construct validity as evidenced by associations with physical violence, attachment patterns, and interpersonal problems (Murphy & Hoover, 1999; Shorey, Brasfiels, Febres, Cornelius, & Stuart, 2013; Stein, Tran, & Fisher, 2009). The measure demonstrated adequate reliability in the present study ($\alpha = .94$).

Sensitivity to Rejection

The Rejection Sensitivity Questionnaire (RSQ; Downey & Feldman, 1996) assesses one’s vulnerability and sensitivity to rejection with 18 interpersonal situations (see Appendix I). Sample scenarios include “You ask a friend to do you a big favor” and “You ask someone you don’t know well out on a date”. Participants reported on how concerned they would feel in being

rejected in that situation on a scale that ranged from 1 (*Very unconcerned*) to 6 (*Very concerned*) and reported on the likelihood the other person would respond in an accepting manner on a scale ranging from 1 (*Very unlikely*) to 6 (*Very likely*). The rejection sensitivity score for each situation was calculated by multiplying the level of rejection concern by the reverse score of the level of expected acceptance. The mean of the 18 scores was obtained to calculate the overall rejection sensitivity score. The measure showed a high internal consistency of $\alpha = .83$ in the original sample and a high test-retest reliability as evidenced by $\alpha = .83$ after approximately two to three weeks and $\alpha = .78$ after four months (Downey & Feldman, 1996). Moreover, the interpersonal scenarios in the RSQ were derived from open-ended interviews with undergraduates, and scenarios were selected that represented interpersonal situations in which there was a possibility of rejection. The selected situations were specific to college life and young adults and, therefore, appropriate for an undergraduate sample. The measure demonstrated adequate reliability regarding concern of rejection and likelihood of rejection in the present study ($\alpha = .91$ and $.84$, respectively).

Mother-Child Relationship Quality

The maternal warmth subscale of the Parental Warmth, Support, and Hostility Scale (Conger et al., 2002) is a 13-item measure that assesses the relationship quality with one's mother (see Appendix J) on a scale ranging from 0 (*Never*) to 3 (*Usually*). Maternal warmth is characterized by a nurturing and caring relationship between the mother and child. The measure consists of two subscales: hostility (e.g., "bossed you around") and warmth subscales (e.g., "listened carefully to your point of view"). It is recommended to either calculate one composite score or use the two subscales separately (i.e., hostility and warmth). For this study, the hostility

subscale was reversed coded and summed with the warmth subscale to create a composite score, with higher scores indicating low maternal hostility and high maternal warmth. This measure has demonstrated high internal consistency at $\alpha = .89$ (Lucas-Thompson & Granger, 2014). The measure demonstrated adequate reliability in the current study ($\alpha = .91$).

Emotion Regulation

Emotion regulation was assessed using the Difficulties in Emotion Regulation Scale (DERS; Gratz & Roemer, 2004; see Appendix K). The 36-item measure consists of six subscales: Nonacceptance of Emotional Responses, Difficulties Engaging in Goal-Directed Behaviors, Impulse Control Difficulties, Lack of Emotional Awareness, Limited Access to Emotion Regulation Strategies, and Lack of Emotional Clarity. Participants responded to items on a scale ranging from 1 (*Almost never*) to 5 (*Almost always*). Sample items include “I feel at ease with my emotions,” “When I’m upset, I feel like I am weak,” and “I have no idea how I am feeling.” An overall score was calculated by reverse coding negatively keyed items and averaging item responses. This scale has shown good internal consistency with $\alpha = .75$ to $.95$ (Derrick, Testa, & Leonard, 2014; Gratz & Roemer, 2004; Lilly & Mercer, 2012). The measure demonstrated adequate reliability in the present study ($\alpha = .96$).

Exposure to Childhood Trauma

Exposure to traumatic childhood experiences was assessed using the Childhood Trauma Questionnaire (CTQ; Bernstein & Fink, 1998; see Appendix L). The CTQ is 28-item self-report measure assessing for childhood abuse and neglect. It consists of five subscales: Emotional Abuse, Physical Abuse, Sexual Abuse, Physical Neglect, and Emotional Neglect. Participants

responded to items on a scale ranging from 1 (*Never true*) to 5 (*Very often true*). Sample items include “I believe that I was physically abused” and “I knew that there was someone to take care of me and protect me.” A total score was calculated by reverse coding negatively keyed items and averaging all item responses. Higher scores indicate more severe childhood maltreatment. This is a well-validated measure and has demonstrated high internal consistency among college-aged samples ($\alpha = .74$ to $.83$; Maldonado, Watkins, & DiLillo, 2014; Salwen, Hymowitz, Bannon, & O’Leary, 2015). This measure demonstrated good internal consistency in the current sample ($\alpha = .93$).

Plan of Analysis

First, the data were cleaned and prepared for analysis. Missing data were inspected, skewness and kurtosis were reviewed, and the data were examined to determine if assumptions for statistical analyses were met. Missing data were assessed on a case-by-case basis. Outliers were screened within the data using descriptive statistics, and box plots and were tested for their influence on statistical results. Descriptive statistics were determined in the preliminary analyses stage, and bivariate correlations were conducted to test whether the expected relations were present. Next, a series of regression analyses were utilized to test the hypotheses.

Regarding hypothesis testing, it was first hypothesized that increased exposure to interparental violence would have a direct relationship with high levels of psychological abuse perpetration in romantic relationships. Second, I hypothesized that exposure to interparental violence and psychological abuse perpetration in romantic relationships would be mediated by rejection sensitivity.

The third and fourth hypotheses stated that exposure to interparental violence would be

less strongly associated with rejection sensitivity under conditions of increased maternal warmth, and sensitivity to rejection would be less strongly associated with perpetration of psychological aggression under conditions of fewer difficulties in emotion regulation. The moderated mediation model was analyzed using the PROCESS macro (model 21). These analyses were conducted using 5,000 bootstrapping resamples and 95% confidence intervals. Use of the PROCESS macro to test for moderated mediation (model 21) provided a single output that could be used to examine all direct, indirect, and moderated indirect effects hypothesized in the present study.

The direct effect of interparental violence on psychological perpetration in adulthood was examined to test the first hypothesis. A significant direct effect in the positive direction constituted a rejection of the null hypothesis. Examination of the indirect effect of rejection sensitivity on the relationship between interparental violence and psychological perpetration was examined in the output file. There was evidence of mediation when the indirect effect through the mediator was statistically significant and the effect of the direct pathway was reduced or was not statistically significant; the indirect pathway was statistically significant if the 95% confidence interval did not span zero and the null hypothesis could be rejected.

Conditional effects to examine hypotheses three and four were determined by inspecting the interaction terms. Moderation effects were present when the confidence intervals for the interaction terms did not span zero. The simple slopes of conditional effects would be interpreted. A moderated mediation would be indicated if the interaction terms were significant, and if there was a decreased effect of interparental violence on rejection sensitivity at high levels of maternal warmth. Further, a moderated mediation could occur if there was weakened effect of rejection sensitivity on psychological aggression for those with greater capacity to regulate

emotions.

Several covariates were examined for possible inclusion in analyses. Prior research has shown that young adults who observed IPV perpetration from the same gender parent were at an increased risk of perpetrating physical violence toward an intimate partner, while those who witnessed the opposite-sex parent were not (Jankowski, Leitenberg, Henning, & Coffey, 1999). Therefore, gender of parent perpetrating IPV was assessed as a potential covariate in the analyses. Gender had been differentially implicated for physical IPV perpetration (Archer, 2000) and psychological IPV perpetration (Gormley & Lopez, 2010b), and thus, gender was assessed as a potential covariate in analyses. Finally, exposure to childhood maltreatment (e.g., physical abuse and emotional abuse) had been shown to increase risk for later violence perpetration in intimate relationships (Mckinney, Caetano, Ramisetty-Mikler, & Nelson, 2010) and was, therefore, assessed as a potential covariate in statistical analyses.

Following hypothesis testing, post hoc analyses were conducted. Specifically, the model was re-run with specific forms of interparental IPV entered as the independent variable to examine whether types of interparental IPV (i.e., physical and psychological) and gender of parent perpetrator (i.e., maternally-perpetrated IPV and paternally-perpetrated IPV) have specific effects on rejection sensitivity and/or increase risk for later psychological IPV perpetration in adulthood.

CHAPTER 4

RESULTS

Descriptive Statistics

Participants in the study reported varying degrees of childhood interparental violence exposure and psychological abuse perpetration (see Table 1). Approximately 86% of the participants reported witnessing at least one act of physical or psychological aggression between their parents before they were 18 years old. Unsurprisingly, at least twice as many participants reported witnessing psychological violence compared to physical violence between their parents. Table 1 further shows that a slightly greater percentage of participants reported witnessing at least one act of maternal-perpetrated psychological and physical interparental violence when compared to paternal-perpetrated psychological and physical IPV, respectively.

Regarding the participants' own perpetration of psychological abuse in intimate relationships, approximately 92% of the participants reported perpetrating at least one act of psychological aggression within the past six months of their relationship. When psychological aggression perpetration was divided into specific types of behaviors, as indicated by subscales on the MMEA, the participants also varied in their reports. The participants reported engaging in a more Restrictive Engulfment type of behaviors, with two-thirds of the participants reporting at least one act of psychological aggression characterized as possessively limiting a partner's behavior. The next most common form of behavior was related to Hostile Withdrawal, in which approximately 62% of the participants reported engaging in at least one act of emotional

disengagement with their partner. Less frequently, slightly under one-third of the participants reported engaging in Denigration behaviors that aimed to degrade or humiliate their partner. Least of all, one-fifth of participants engaged in at least one act of Dominance or Intimidation forms of violence that aimed to provoke fear in their partner through threats or property destruction.

Table 1

Percentage Endorsing, at Minimum, One Act of Family-of-Origin Interparental Violence and/or Psychological IPV Perpetration

	% of whole sample	<i>n</i>
Either Form of Interparental IPV	85.6	173
Psychological Interparental IPV	88.1	178
Physical Interparental IPV	42.6	86
Mother-to-Father Psychological IPV	89.1	180
Mother-to-Father Physical IPV	36.6	74
Father-to-Mother Psychological IPV	86.6	175
Father-to-Mother Physical IPV	34.2	69
Total Psychological IPV Perpetration	92.1	186
Restrictive Engulfment	67.8	137
Denigration	29.2	58
Hostile Withdrawal	61.9	125
Dominance/Isolation	17.3	35

Table 2 reports frequency rates by type of interparental violence exposure and by type of psychological IPV perpetration. On average, participants reported witnessing approximately 78 acts of interparental IPV (i.e., various forms of psychological and physical violence) during the year interparental violence was reported to be at the worst level during their childhood. In terms

of types of violence, the participants were five times more likely to report witnessing psychological interparental IPV compared to physical acts. The participants reported witnessing approximately equal rates of maternal- and paternal-perpetrated psychological violence. However, the participants reported witnessing slightly more acts of paternal-perpetrated physical IPV compared to maternally-perpetrated physical violence.

Table 2

Total Scores of Family-of-Origin Interparental IPV Violence and Psychological IPV Perpetration Reported in Means and Standard Deviations

	<i>M</i>	<i>SD</i>	<i>n</i>
Either Form of Interparental IPV	78.56	88.92	187
Psychological Interparental IPV	65.54	63.78	195
Physical Interparental IPV	13.37	40.69	193
Mother-to-Father Psychological IPV	32.95	33.32	199
Mother-to-Father Physical IPV	5.81	17.27	199
Father-to-Mother Psychological IPV	32.25	34.29	197
Father-to-Mother Physical IPV	7.33	26.70	195
Total Psychological IPV Perpetration	33.95	53.24	200
Restrictive Engulfment	5.28	8.87	202
Denigration	2.10	5.79	201
Hostile Withdrawal	4.51	8.48	202
Dominance/Isolation	.82	2.79	202

Note. The *n*'s varied due to missing data; Means and standard deviations were derived from raw scores.

The most frequently endorsed psychological interparental IPV incidents were as follows: “Mother insulted or swore at father” (78.3%, *n* = 159), “Mother shouted or yelled at father” (73.9%, *n* = 150), “Father shouted or yelled at mother” (71.9%, *n* = 146), and “Father insulted or

swore at mother” (76.4%, $n = 155$). The most commonly reported physical interparental IPV incidents included “Mother threw something at father that could hurt” (27.1%, $n = 55$), “Mother pushed or shoved father” (23.6%, $n = 48$), “Father pushed or shoved mother” (21.2%, $n = 43$), and “Father grabbed mother” (23.2%, $n = 47$).

Overall, the participants reported perpetrating slightly over 33 psychologically aggressive behaviors within the last six months of their intimate relationship. Regarding types of psychological violence, participants reported higher rates of restrictive engulfment behaviors followed by hostile withdrawal behaviors, denigration behaviors, and dominance/isolation behaviors. The forms of psychological aggression most commonly perpetrated by participants were as follows: “Acted cold or distant when angry” (68.0%, $n = 138$) on the hostile withdrawal subscale, “Asked your partner where they had been or who they were with in a suspicious manner” (62.6%, $n = 127$) on the restrictive engulfment subscale, “Put your face right in front of your partner’s to make a point more forcefully” (14.4%, $n = 29$) on the dominance / intimidation subscale, and “Criticized your partner’s appearance” (13.9%, $n = 28$) on the denigration subscale.

Data Screening

Data screening and analyses were conducted using SPSS Statistics 24.0. As previously stated, 70 participants were excluded from analyses due to failure to pass the three attention checks. At this stage, 12 cases were omitted from the analyses due to complete missing data on key measures: one participant did not complete the CTS, one participant did not complete the DERS, and nine participants did not complete the MW. One case was excluded for a participant who identified as transgender, as interpretation of findings for one participant with this gender

identity may be highly speculative or inconclusive, thus, precluding further analysis.

Due to a human error, item eight of the MMEA questionnaire, “Said or implied that your partner was stupid,” was not included in the first semester of data collection and is missing for 27% of the cases. The item was dropped, and a 27-item version of the MMEA perpetration scale was used in the present analyses.

Next, the data were screened for outliers (univariate and multivariate) by examining histograms, boxplots, descriptive statistics, and Mahalanobis Distance. Extreme values were individually examined to determine whether the winsorizing method was necessary to address outliers. There were two univariate outliers observed for the CTS and MMEA scales. The next highest values were used to replace the extreme scores to fit the distribution. Removing the outliers did not significantly impact results. One multivariate outlier with a high distance score ($D = 20.53$) and a significant p value (< 0.001), indicating high leverage and influence (Tabachnick & Fidell, 2013), were excluded from all primary and post hoc analyses.

Subsequently, the data were assessed to confirm that statistical assumptions of multivariate normality were met. The skewness, kurtosis, and histogram of study variables were examined to evaluate multivariate normality assumptions. When examining the distribution of the variables, the Shapiro-Wilk tests for all variables (i.e., CTS, MMEA, RSQ, MW, and DERS) were significant, indicating that a normal distribution of the variables cannot be assumed. Data also demonstrated significant skew and kurtosis exceeding the cut-off values of -2.00 to +2.00 (George & Mallery, 2016). Scores for the CTS, MMEA, RSQ, and DERS were found to be positively skewed, and scores for the MW were negatively skewed. Log transformation was applied to the five skewed variables and improved distribution for the CTS, MMEA, RSQ, and DERS; thus, the log-transformed scores on these measures were used in subsequent analyses, but

the original scores on the MW were retained.

Data were screened for missing values, and it was determined that 3.37% of values were missing. Little's MCAR (missing completely at random) test was conducted, and the p value (> 0.05) indicated that the data were missing completely at random. As there were less than 5% of missing values, estimation-maximization (EM) algorithm of SPSS could be used to handle values of missing data to maintain power and sample size (Dempster, Laird, & Rubin, 1977).

Preliminary Analyses

A correlation matrix of all relevant variables is presented in Table 3. Greater levels of interparental IPV exposure were significantly positively associated with increased psychological IPV perpetration in one's relationship, sensitivity to rejection, and emotion regulation difficulties. Psychological abuse perpetration was significantly positively associated with increased rejection sensitivity and emotion regulation difficulties. Further, maternal warmth was significantly negatively associated with exposure to interparental IPV and psychological abuse perpetration, although it was not significantly associated with rejection sensitivity. Greater levels of emotional regulation difficulties were significantly positively associated with rejection sensitivity and significantly negatively associated with maternal warmth. Results were comparable to correlation analyses with the original dataset before the application of the EM algorithm ($N = 203$).

Table 3

Correlation Matrix between Primary Variables of Interest

	1	2	3	4	5
1. Interparental IPV exposure	–	–	–	–	–
2. Psychological IPV perpetration	.30***	–	–	–	–
3. Rejection sensitivity	.20**	.16*	–	–	–
4. Maternal warmth	-.39***	-.22**	-.06	–	–
5. Emotion Regulation Difficulties	.25***	.30***	.25***	-.33***	–
<i>M</i>	78.56	33.95	14.13	32.04	78.71
<i>SD</i>	88.92	53.24	4.97	6.62	25.76
Min	0	0	6.44	10	39
Max	472	345	27.06	39	158
Range	0 – 950	0 – 675	1 – 36	0 – 39	36 – 180
<i>n</i>	187	200	199	201	189

Note. * $p < .05$, ** $p < .01$, *** $p < .001$; Means, standard deviations, minimum, maximum, and sample size values were derived from raw scores.

Prior to hypothesis testing, the interrelations between potential covariates and the outcome variable (i.e., psychological abuse perpetration) were examined. An independent-samples t-test was performed to determine whether gender differences were present for psychological abuse perpetration. There was a significant difference in the scores for women ($M = 41.99$, $SD = 56.28$) and men ($M = 20.53$, $SD = 44.97$; $t(198) = -2.81$, $p = .006$). These results suggest that women reported significantly higher rates of psychological abuse perpetration in their relationships compared to men. Psychological abuse perpetration was also positively associated with exposure to childhood maltreatment (CTQ; $r = .16$, $p = .02$). On average, the participants reported low levels of childhood maltreatment exposure. In examining types of childhood maltreatment, the participants reported no or minimal exposure to physical abuse ($M = 6.56$, $SD = 2.66$), sexual abuse ($M = 5.59$, $SD = 2.53$), emotional abuse ($M = 8.01$, $SD = 4.34$),

physical neglect ($M = 6.64$, $SD = 2.69$), and emotional neglect ($M = 8.49$, $SD = 4.12$) based on standardized ranges established by Bernstein and Fink (1998).

In addition, an independent-samples t-test was performed to examine whether participants who observed IPV perpetration from the same-gender parent were at an increased risk of perpetrating psychological IPV. Two groups were generated and dummy coded to test whether psychological abuse perpetration was a function of witnessing the same-gender parent perpetrating IPV. If the participant gender matched the same-gender parent who engaged in at least one act interparental IPV perpetration, this group was coded as “1.” If the same-gender parent did not engage in violence, this group was coded as “0.” While participants whose gender matched the gender of the parent who perpetrated IPV were, on average, more likely to perpetrate psychological abuse ($M = 36.41$, $SD = 55.60$) than those whose gender-matched parents did not engage in violence ($M = 16.68$, $SD = 27.16$), the difference was not statistically significant $t(198) = -1.74$, $p = .08$; this variable was excluded as a covariate.

Further, length of intimate relationship in months was significantly positively associated with psychological abuse perpetration ($r = .15$, $p = .04$). As such, participant gender, childhood maltreatment, and length of relationship were included as covariates for all remaining analyses.

Hypothesis Testing

Multiple regression analyses were conducted to examine the relationship between witnessing childhood interparental IPV and subsequent psychological IPV perpetration. The Process Macro was used to investigate the overall moderated mediation model (model 21) to examine all four hypotheses (see Table 4). The overall model fit was significant, $F(7, 194) = 11.03$, $p < .001$, $R^2 = .28$.

Table 4

Moderated Mediation Model

Predictors	Coefficient (<i>B</i>)	S.E.	95% CI
Outcome variable: MMEA			
Exposure to interparental IPV	.21**	.07	[.08, .34]
Rejection sensitivity	5.06	3.55	[-1.94, 12.07]
Emotion regulation difficulties	3.67	2.18	[-.63, 7.96]
RSQ x DERS	-2.56	1.92	[-6.35, 1.23]
Relationship length	.009***	.003	[.004, .01]
Childhood maltreatment	.0003	.003	[-.01, .006]
Gender	.33***	.08	[.18, .48]
Outcome variable: RSQ			
Exposure to interparental IPV	.10	.11	[-.12, .33]
Maternal warmth	.003	.006	[-.01, .02]
CTS x MW	-.002	.003	[-.008, .005]
Relationship length	-.002*	.001	[-.003, -.0004]
Childhood maltreatment	-.0004	.001	[-.002, .002]
Gender	.03	.02	[-.02, .07]

Note. * $p < .05$, ** $p < .01$, *** $p < .001$; MMEA = perpetration of psychological abuse; RSQ = rejection sensitivity; DERS = difficulties in emotion regulation; IPV = intimate partner violence; CTS = exposure to interparental violence; MW = maternal warmth.

In predicting psychological abuse perpetration within this model, the direct effect of interparental IPV exposure remained significant after controlling for covariates ($B = .21$, $p = .001$). Hypothesis 1, that increased exposure to interparental violence will have a direct relationship with high levels of psychological abuse perpetration in romantic relationships, was supported. Relationship length and gender remained significant predictors of psychological abuse perpetration.

The simple indirect effect of rejection sensitivity was examined (PROCESS model 4). In

this analysis, Table 5 shows that exposure to interparental IPV in childhood was directly related to psychological aggression and indirectly associated with psychological aggression through rejection sensitivity, indirect effect = .02, 95%CI [.002, .07]. Hypothesis 2, stating that rejection sensitivity would mediate the relationship between childhood interparental IPV exposure and psychological IPV perpetration in adulthood, was therefore supported.

Table 5

Interparental IPV Exposure Predicting Psychological IPV Perpetration Indirectly through Rejection Sensitivity Model

Predictors	Coefficient (B)	S.E.	95% CI
Outcome variable: MMEA			
Exposure to interparental IPV	.20**	.07	[.07, .33]
Rejection sensitivity	.49*	.25	[.01, .98]
Relationship length	.01***	.003	[.005, .01]
Childhood maltreatment	.004	.003	[-.001, .009]
Gender	.35***	.08	[.20, .50]
Outcome variable: RSQ			
Exposure to interparental IPV	.05**	.02	[.01, .09]
Relationship length	-.002*	.001	[-.003, -.0004]
Childhood maltreatment	-.0004	.001	[-.002, .001]
Gender	.03	.02	[-.02, .07]
Indirect effect	.02	.02	[.002, .07]

Note. * $p < .05$, ** $p < .01$, *** $p < .001$; MMEA = perpetration of psychological abuse; RSQ = rejection sensitivity; IPV = intimate partner violence.

Further, the indirect effect of rejection sensitivity on the association between interparental violence and psychological violence perpetration was examined at different levels of the moderators. Table 6 shows the conditional indirect effect of rejection sensitivity on the

relationship between exposure to interparental IPV and perpetration of psychological aggression. The interaction effects of maternal warmth and emotion regulation difficulties were also examined and reported in Table 4. While there was one instance in which there was a significant conditional indirect effect (see Table 6), the indirect effect and interaction effects were nonsignificant, which does not support the hypothesized relationships (see Table 4). Contrary to Hypothesis 3, exposure to interparental IPV did not significantly interact with maternal warmth in predicting rejection sensitivity and the interaction failed to achieve significance. Likewise, Hypothesis 4, stating that emotion regulation would moderate the relationship between rejection sensitivity and psychological abuse perpetration, was not supported; this interaction failed to achieve significance.

Post Hoc and Additional Analyses

The moderated mediation model was re-run with specific forms of interparental IPV (i.e., psychological and physical) and by parent gender (i.e., maternal-perpetrated IPV and paternal-perpetrated IPV). These four independent variables were separately entered to examine whether exposure to specific forms of childhood interparental IPV and gender of parent perpetrator increased risk for subsequent psychological abuse perpetration and whether particular forms of interparental IPV had specific effects on rejection sensitivity later in adulthood.

All forms of interparental IPV (i.e., maternal-perpetrated psychological IPV, maternal-perpetrated physical IPV, paternal-perpetrated psychological IPV, and paternal-perpetrated physical IPV) were non-significant predictors of rejection sensitivity ($p = .33$ to $.90$). Only relationship length significantly negatively predicted rejection sensitivity across all four models

Table 6

Conditional Indirect Effects of Exposure to Interparental IPV on Perpetration of Psychological IPV at Different Values of the Moderators

MW	DERS	Effect	95% CI
Mediator: Rejection Sensitivity			
25.44	1.74	.04	[-.01, .14]
25.44	1.87	.02	[-.01, .09]
25.44	2.01	-.005	[-.09, .05]
32.04	1.74	.03	[.002, .10]
32.04	1.87	.01	[-.006, .06]
32.04	2.01	-.004	[-.06, .04]
38.64	1.74	.03	[-.0003, .10]
38.64	1.87	.01	[-.004, .06]
38.64	2.01	-.003	[-.05, .03]

Note. MW = maternal warmth; DERS = emotion regulation difficulties.

($p = .01$ to $.03$). Mother-to-father psychological violence and physical violence predicted participant perpetration of psychological aggression, $B = .004$, $p = .003$, 95%CI [.001, .007], and $B = .01$, $p = .01$, 95%CI [.002, .01], respectively. However, father-to-mother psychological violence and physical violence did not predict participant perpetration of psychological abuse, $B = .003$, $p = .05$, 95%CI [.000, .005], and $B = .001$, $p = .57$, 95%CI [-.002, .004], respectively.

CHAPTER 5

DISCUSSION

The purpose of the current study was to examine the link between family-of-origin violence, particularly exposure to interparental IPV, and the underlying mechanisms and risk factors associated with psychological IPV perpetration among college students. A large body of research has focused on understanding the nature of interpersonal violence, particularly within intimate relationships. In line with numerous empirical studies supporting the link between early exposure to family violence and subsequent involvement in violent romantic relationships (e.g., Black et al., 2010; Ehrensaft et al., 2003; Milletich et al., 2010; Stith et al., 2000; Whitfield et al., 2003), it was hypothesized that witnessing interparental violence would predict later psychological violence in romantic relationships, thus perpetuating the cycle of violence.

Building on current research that suggested associations between interparental violence and psychological dating violence emerge in part due to dysfunctional social-cognitive processes (e.g., Brown et al., 2010; Hafen et al., 2014; Moretti et al., 2014), the present study also hypothesized the mediating relationship of rejection sensitivity in the intergenerational transmission of violence. Specifically, it was expected that young adults' perceptions of high frequency IPV in their parents' relationships would predict greater rejection sensitivity and that high levels of rejection sensitivity would in turn predict high rates of psychological IPV perpetration in relationships.

As vulnerability models of psychological abuse perpetration were of interest, maternal

warmth and emotion regulation difficulties were evaluated as potential moderators of the relationship between exposure to interparental violence and rejection sensitivity as well as rejection sensitivity and psychological abuse perpetration, respectively. Based on prior research, exposure to interparental IPV was expected to be less predictive of rejection sensitivity under conditions of high maternal warmth (e.g., Downey et al., 1999; Masten & Coatsworth, 1998; McDonald et al., 2010). Moreover, in line with previous research, it was predicted that rejection sensitivity would be less associated with psychological IPV perpetration under conditions of decreased emotion regulation difficulties (e.g., Silvers et al., 2012; Stuart et al., 2006). Although the study's results failed to support these hypothesized moderating relationships, several important findings were identified.

Prevalence Rates

Results from the present study suggest that witnessing interparental violence, as well as engaging in psychological violence in current dating relationships, is a significant area of concern among college men and women, which is consistent with previous research (e.g., Edwards, Dixon, Gidycz, & Desai, 2014; Gormley & Lopez, 2010a; Gover, Kaukinen, & Fox, 2008; Murphy & Blumenthal, 2000; Stein et al., 2009; Testa, Hoffman, & Leonard, 2011; Williams, Ghandour, & Kub, 2008). A little over eight out of ten participants reported witnessing at least one act of interparental relationship violence. With respect to specific types of interparental violence, witnessing behaviors consistent with psychological abuse were more commonly endorsed compared to physical abuse.

The prevalence rates in the current study regarding witnessing physical interparental violence in childhood are consistent with previous studies among college samples, which

typically range from 14% to 41% (Black et al., 2010; Edleson, 1999; Jankowski et al., 1999; Silvern et al., 1995). However, only one study on undergraduate samples has reported prevalence rates regarding exposure to interparental psychological violence among this population. Black et al. (2010) previously found that 58% of undergraduate students retrospectively reported witnessing psychological interparental violence. In comparison, the percentage of participants reporting exposure to this form of violence in the current study was considerably higher. This may be due to Black et al.'s use of a short six-item version of the CTS2 measure to assess this construct; whereas, the current study employed the full version with 14 items. Therefore, the inclusion of more items in the current study may have increased the likelihood of reporting at least one act of violence.

A limited number of studies have separately examined the rates of psychological interparental IPV exposure from physical IPV. The National Survey of Children's Exposure to Violence reported lifetime prevalence rates of psychological interparental IPV exposure among children under 17 years old, which ranged from 12% to 25% (Hamby, Finkelhor, Turner, & Ormrod, 2011). Hamby et al. utilized phone interviews to assess experiences of violence among children and their parents. Using this methodology, children and adolescents may have been less comfortable verbalizing and discussing sensitive topics, such as witnessing violence, with researchers, resulting in lower prevalence rates. The online survey methodology in the current study may have provided greater privacy and may have increased the likelihood of reporting violence exposure. These research findings highlight the importance of using consistent measures to assess interparental violence exposure. Differing methodologies should be considered when calculating and comparing prevalence rates across studies.

Similarly, nine out of ten participants in the current study reported the existence of

maladaptive relationship behaviors within their current or most recent dating relationship, particularly behaviors consistent with psychological abuse perpetration. These prevalence rates are consistent with those reported in prior research (e.g., Banyard, Arnold, & Smith, 2000; Harned, 2001; Neufeld et al., 1999). Research has demonstrated that the prevalence of psychological abuse, a common form of dating aggression, is between 60% and 90% among undergraduate students. These high rates were supported in a study of undergraduates by Riggs and O’Leary (1996) that found only 7% of men and 3% of women reported an absence of psychological aggression within their romantic relationships.

Although consistent with previous research, the high base rates of violence exposure in childhood and psychological perpetration in young adulthood in the present study may be due to several factors. The measures that assessed for experiences of interparental IPV and partner IPV did not differentiate between level of severity. That is, low severity violence may be more frequent and overlap with more common forms of couple aggression (e.g., “Mother insulted or swore at father,” “Father pushed or shoved mother,” and “Called your partner worthless”). Whereas, high severity violence, potentially incurring greater risk of injury (e.g., “Mother used a knife or gun on father,” “Father choked mother,” and “Drove recklessly to frighten your partner”), may occur infrequently, which influenced the base rate results. This may have led to ceiling effects that decreased the overall power to detect underlying associations between variables.

Demographic Variables: Participant Gender

Relative to gender effects, patterns within the current study were somewhat consistent with prior research. While previous research suggests that women perpetrate greater relationship

violence compared to men (e.g., Archer, 2000; Kwong, Bartholomew, and Dutton, 1999; Magdol et al. 1997), other research shows that men and women perpetrate at comparable rates (e.g., Dutton, Nicholls, & Spidel, 2005; Follette & Alexander, 1992). The current findings indicate that women were significantly more likely than men to report perpetrating psychological abuse.

An alternative explanation for the differences in rates may be that women are more likely to report IPV perpetration due to decreased fear of consequences when disclosing experiences of violence (DeKeseredy & Schwartz, 1998). That is, men may tend to underreport dating violence perpetration due to social desirability and/or cultural stigma toward such behaviors. While these factors were not controlled in the current study, they should be considered in future research. Although the current findings are mixed, study results support the inclusion of both men and women in relationship violence prevention and intervention efforts, particularly the importance of attending to gender differences in rates of psychologically aggressive behaviors.

Main Findings

Consistent with the first hypothesis, the findings suggest that even after controlling for gender, exposure to childhood maltreatment, and length of relationship, exposure to interparental violence in childhood was associated with perpetrating psychological abuse in dating relationships. This finding supports prior research concerning the impact of family-of-origin violence exposure on outcomes measured in young adulthood, including increased risk for partner violence (e.g., Caesar, 1988; Stith et al., 2000). Results further demonstrate that the negative consequences of traumatic events encountered in early life persist into adulthood, specifically the perpetration of psychological abuse that has generally received less attention.

The findings are consistent with social learning theory; that is, individuals may be more

likely to model and imitate witnessed interparental violence (Bandura, 1977). Due to this exposure, the use of aggression may be learned as an appropriate conflict management strategy with intimate partners. If learning that violent behavior is an effective method to gain power and control, there is an increased likelihood of being reinforced and/or repeated. Moreover, the socialization of violence has been associated with the acceptance and normalization of aggression within interpersonal relationships, increasing the risk of further violence (Chapple, 2003). Of note, witnessing violence has a separate and significant effect on the perpetration of psychological violence in adulthood beyond the effects of childhood maltreatment (e.g., physical abuse, emotional abuse, and neglect), including those potentially perpetrated by parents toward the child. However, it should be noted that low to minimal exposure to these forms of childhood trauma were reported by study participants.

A further prediction examined rejection sensitivity as a mechanism in the intergenerational transmission of violence. Regression analyses supported the simple indirect effect of childhood interparental IPV exposure on subsequent psychological IPV perpetration through rejection sensitivity, albeit with a small effect size. In other words, individuals exposed to childhood interparental aggression predicted increased expectations of rejection. These beliefs, in turn, predicted greater psychological aggression toward their romantic partners. This is consistent with findings by Moretti et al. (2014) that found support for the mediating relationship among a high-risk sample of adolescent girls recruited from detention centers. Of note, the current study expanded this observation to an undergraduate college sample consisting of young men and women in dating relationships.

There are several potential explanations for why a small indirect effect size was observed. First, it is possible that the covariates in the moderated mediation model may have accounted for

a high percentage of the variance, thus increasing the degrees of freedom and the power needed to detect significant relationships between key study variables given the small sample size.

Additionally, the differences may be due to sample type. Whereas Moretti et al. (2014) recruited a sample of adolescent females from a juvenile detention center, the current study consisted of undergraduate young adult men and women. The adolescent sample in Moretti et al.'s study may have been at higher risk for aggressive and antisocial behavior. As such, the base rate and distribution of aggressive behaviors within the current study sample may have been inadequate to detect meaningful relationships with the inclusion of additional factors.

Although difficulties with emotion regulation was positively linked with psychological IPV perpetration at the bivariate level, rejection sensitivity did not interact with emotion regulation difficulties to predict psychological abuse perpetration. Maternal warmth did not significantly predict psychological abuse perpetration, nor did exposure to interparental violence interact with maternal warmth to predict levels of rejection sensitivity.

The nonsignificant interaction effects may have been due to several methodological limitations and conceptual factors. First, the sample size may have been too small to find meaningful differences or effects within the moderated mediation model. Further, it may be that maternal warmth is more salient in buffering the effects of observed interparental violence when the father is the sole perpetrator or initiator of IPV. However, perpetration was not differentiated into groups that identified whether either parent was the sole perpetrator or whether there was a bidirectional pattern in interparental violence. Thus, further studies may benefit from isolating the effects of these groups and their interactive effects with maternal warmth. Moreover, paternal warmth may have been impactful in reducing negative outcomes for children exposed to IPV; however, this was not included in the present study. In addition, the measure used to assess

emotion dysregulation may not have addressed actual coping behaviors in interpersonal events in which rejection is perceived. Therefore, the COPE Inventory, a multidimensional coping inventory to assess the different responses to stress including experiences of rejection, could be used in future research.

Post Hoc Analyses

Post hoc analyses separately examined the moderated mediation model by form of interparental violence (i.e., physical and psychological) and gender of perpetrator (i.e., maternal and paternal). Findings indicated that both forms of maternal-perpetrated IPV appeared to be more predictive of participant use of psychological IPV when compared to father-perpetrated IPV. In contrast, neither form of father-to-mother violence significantly predicted psychological abuse perpetration. This pattern is consistent with previous research demonstrating that children and adolescents who observed maternal-perpetrated IPV engaged in more aggressive behaviors, including later aggression toward romantic partners (Moretti et al., 2006; Ulman & Straus, 2003). However contradictory evidence supports the opposite claim. That is, paternal-perpetrated violence is a significant predictor of physical violence for undergraduate dating partners (Riggs & O'Leary, 1996) and married partners (O'Leary, Malone, & Tyree, 1994).

Study results add to growing evidence that maternal-perpetrated IPV plays an important role in shaping offspring's use of aggression in intimate relationships. However, research to date remains mixed and inconclusive regarding the differential influence of maternal- versus paternal-perpetrated IPV in the intergenerational transmission of violence. Future research should examine factors that differentiate the influence of either parent in increasing the risk for partner violence, revealing potential mechanisms that underlie the gender modeling effects with

consideration of both psychological and physical violence.

Limitations and Directions for Future Research

This study has several limitations. First, given the retrospective nature of the present data, there is a possibility that men and women who engage in partner violence may be biased in recalling more negative interparental behaviors in childhood. Alternatively, participants who recall greater acts of interparental IPV may be more likely to have a negative view of their relationship and their reports of psychologically aggressive behaviors could also be subject to recall bias. Second, the data were obtained through cross-sectional methods, thereby preventing conclusions about the directionality and causality of the variables. Although the participants were asked to report violent incidents within the context of childhood family relationships and adult romantic relationships, the temporal sequence between the variables cannot be fully substantiated. While it is difficult to address the limitations of retrospective reporting, a longitudinal study design may provide a way of controlling for simultaneous reports of family-of-origin violence and current relationship functioning. This design may also determine the causal relationships among the key study variables of interest.

Another potential limitation in methodology is the use of self-report when measuring trauma exposure and violence perpetration. These experiences may be subject to personal interpretation and perceptions that can affect recall. Subjective perceptions of severity and/or frequency of violence may also be influenced by one's experiences of violence. It is possible that infrequent exposure to interparental violence may be more easily recalled and reported due to its salience, whereas frequency of violence may be normalized, thus reducing the likelihood of recall.

Future research may benefit from the use of other-reports. For example, family-of-origin violence may be corroborated by other family members (e.g., partners, siblings and parents). Thus, reporting bias, such as minimizing violence or over-endorsing violence, may be controlled by corroborating reports. Additionally, the use of couple-level research designs may reveal the relationships among these variables between intimate partners and reduce self-report bias.

Furthermore, the use of a college student sample may have limited the generalizability of the findings. However, research supports young college-aged dating couples are at a high risk for maladaptive conflict management strategies, including IPV (Forke et al., 2008). However, future research may also benefit from understanding different violent characteristics among other age groups. Another limitation may be due to sample size. Fritz and MacKinnon (2007) recommend a sample size of 400 participants to achieve .8 power for running bias-corrected bootstrap analyses with the proposed pathways estimated to be in the small to medium range.

It was also unclear in the present study whether perpetration was self-initiated, committed in the context of self-defense, or in response to other forms of partner aggression. While not examined in the current study, previous research has explored the contextual and motivational factors for perpetrating physical partner violence (e.g., Elmquist, Wolford-Clevenger, et al., 2016; Leisring, 2012) and psychological partner violence (e.g., Elmquist et al., 2016). Other variables (e.g., motivation, neuroticism, attachment, social support, substance use, and coping styles) may have contributed to the results in the present study. Examining these factors in future research may help elucidate intergenerational transmission.

Moreover, this study assessed unidirectional psychological IPV perpetration, which precludes our knowledge of the extent to which participants engaged in exclusively unidirectional IPV, bidirectional IPV, or concurrent use with physical IPV. Research supports

that the majority of partner violence is bidirectional (57.9%; Langhinrichsen-Rohling, Misra, Selwyn, & Rohling, 2012), including interparental violence (Jankowski et al., 1999). Further, psychological abuse has been found to be a predictor of and a precursor to physical abuse (e.g., Murphy & O’Leary, 1989). Future studies on the effects of witnessing interparental violence and/or partner violence may benefit from investigating both unidirectional or bidirectional patterns of IPV perpetration and victimization.

A recent review by Jennings et al. (2017) concluded that less priority is paid toward addressing the risk factors of intimate partner violence perpetration as opposed to victimization. Even less attention is paid to risk factors associated with psychological violence perpetration. As such, more research is needed to examine underlying factors and mechanisms for this form of partner violence.

Clinical and Policy Implications

While there was some support for the well-established intergenerational transmission of violence, any implications should be considered largely speculative due to small effect sizes and null findings. First, the high prevalence rates of exposure to interparental violence and perpetration of psychological violence in college romantic relationships highlight an important area of concern for colleges and universities. Health promotion in higher education needs to foster greater understanding of undergraduate dating violence as an important target for violence-reduction interventions. Specifically, awareness of psychological violence requires as much attention as physical and sexual violence. Young adults in college may be engaged in their first dating relationships outside the influence of their family environment, which therefore represents a critical developmental period for making independent decisions regarding relationships. This

presents an opportune time to process the differences between healthy and abusive relationship dynamics.

Research shows that women exposed to early interparental violence are less likely to seek assistance in leaving abusive romantic relationships (Jaffe, Lemon, Sandler, & Wolfe, 1996). Therefore, if one is exposed to early family-of-origin violence, psychoeducation on the detrimental effects of psychological aggression and relevant IPV interventions may potentially break the cycle of violence. Early intervention efforts, including cognitive behavioral therapy, can address maladaptive beliefs, including rejection sensitivity, that may have developed from witnessing abusive relationships between parents. College counseling, psychological services, or similar agencies may implement effective interventions by screening for family-of-origin violence. Educational and psychotherapeutic interventions may help increase college clients' psychological and physical well-being and potentially increase their academic performance. That is, greater awareness and reduction of psychological IPV among college dating relationships may help develop an understanding healthier subsequent dating relationships or marital relationships. Ultimately, increased awareness of effective and safe conflict management and improved interpersonal dynamics may weaken the intergenerational transmission of violence. Thus, the experience of psychological aggression cannot be minimized and is an important target for screening and intervention.

Summary

The current study sought to examine the relationship between witnessing interparental violence and subsequent IPV perpetration in undergraduate dating relationships. Additionally, the explanatory mechanism of rejection sensitivity and risk factors of maternal warmth and

emotion regulation difficulties were explored. Partner violence is a pervasive public health concern as evidenced by reports that the majority of college students have experiences of interpersonal violence, whether through childhood exposure or in emerging adult relationships. IPV has received significant attention over the past four decades, and researchers have attempted to clarify the etiology of partner aggression. One of the strongest predictors of violence, including psychological IPV, in emerging adult relationships is witnessing family-of-origin violence. This was supported in the current study. Furthermore, exposure to violence between parents is predictive of subsequent psychological abuse perpetration in intimate relationships through rejection sensitivity.

Notwithstanding study limitations and null findings regarding the moderating effects, the current findings support existing knowledge in important ways. Study findings demonstrate that psychological aggression is a critical construct in the intergenerational transmission of violence. Furthermore, both physical and psychological interparental violence exposure are implicated in one's use of dating violence while considering other forms of child maltreatment and abuse. Rejection sensitivity is supported as a potential mechanism perpetuating the cycle of violence. The current study also highlights several promising directions for future research, including isolating effects of unidirectional and bidirectional interparental violence on subsequent IPV perpetration. Future studies may benefit from the inclusion of other forms of parent-child relationship quality such as paternal warmth, which may be protective in the intergenerational transmission of violence. Additionally, other forms of coping strategies beyond emotion regulation may be implicated in reducing the negative impact of rejection sensitivity and should be included in future research.

Important implications for assessing and screening for family-of-origin violence

experiences and maladaptive relationship behaviors among college populations were also discussed. Given the study findings, psychologically abusive behaviors such as coercive and controlling behaviors should be included in prevention and intervention efforts for emerging adults.

REFERENCES

- Afifi, T. O., MacMillan, H., Cox, B. J., Asmundson, G. J. G., Stein, M. B., & Sareen, J. (2009). Mental health correlates of intimate partner violence in marital relationships in a nationally representative sample of males and females. *Journal of Interpersonal Violence, 24*, 1398–1417. <https://doi.org/10.1177/0886260508322192>
- Archer, J. (2000). Sex differences in aggression between heterosexual partners: A meta-analytic review. *Psychological Bulletin, 126*, 651–680. <https://doi.org/10.1037//0033-2909.126.5.651>
- Ayduk, O., Downey, G., Testa, A., Yen, Y., & Shoda, Y. (1999). Does rejection elicit hostility in rejection sensitive women? *Social Cognition, 17*, 245–271. <https://doi.org/10.1521/soco.1999.17.2.245>
- Ayduk, O., Gyurak, A., & Luerssen, A. (2008). Individual differences in the rejection-aggression link in the hot sauce paradigm: The case of rejection sensitivity. *Journal of Experimental Social Psychology, 44*, 775–782. <https://doi.org/10.1016/j.jesp.2007.07.004>
- Ayduk, O., Mendoza-Denton, R., Mischel, W., Downey, G., Peake, P. K., & Rodriguez, M. (2000). Regulating the interpersonal self: Strategic self-regulation for coping with rejection sensitivity. *Journal of Personality and Social Psychology, 79*, 776–792. <https://doi.org/10.1037//0022-3514.79.5.776>
- Baker, C. R., & Stith, S. M. (2008). Factors Predicting Dating Violence Perpetration Among Male and Female College Students. *Journal of Aggression, Maltreatment & Trauma, 17*, 227–244. <https://doi.org/10.1080/10926770802344836>
- Baldry, A. C. (2003). Bullying in schools and exposure to domestic violence. *Child Abuse & Neglect, 27*, 713–732. [https://doi.org/10.1016/S0145-2134\(03\)00114-5](https://doi.org/10.1016/S0145-2134(03)00114-5)
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review, 84*, 191–215.
- Banyard, V. L., Arnold, S., & Smith, J. (2000). Childhood sexual abuse and dating experiences of undergraduate women. *Child Maltreatment, 5*, 39–48. <https://doi.org/10.1177/1077559500005001005>
- Bernstein, D. P., & Fink, L. (1998). *Childhood Trauma Questionnaire: A retrospective self-report manual*. San Antonio, TX: Psychological Corporation.

- Black, D. S., Sussman, S., & Unger, J. B. (2010). A further look at the intergenerational transmission of violence: Witnessing interparental violence in emerging adulthood. *Journal of Interpersonal Violence, 25*, 1022–1042. <https://doi.org/10.1177/0886260509340539>
- Black, M. C., Basile, K. C., Smith, S. G., Walters, M. L., Merrick, M. T., Chen, J., & Stevens, M. R. (2010). *National Intimate Partner and Sexual Violence Survey 2010 summary report*. National Center for Injury Prevention and Control. Atlanta, GA. <https://doi.org/10.1093/oxfordhb/9780199844654.013.0003>
- Breiding, M. J., Black, M. C., & Ryan, G. W. (2008). Prevalence and risk factors of intimate partner violence in eighteen U.S. states/territories, 2005. *American Journal of Preventive Medicine, 34*, 112–118. <https://doi.org/10.1016/j.amepre.2007.10.001>
- Brown, J., James, K., & Taylor, A. (2010). Caught in the rejection-abuse cycle: Are we really treating perpetrators of domestic abuse effectively? *Journal of Family Therapy, 32*, 280–307. <https://doi.org/10.1111/j.1467-6427.2010.00494.x>
- Buehler, C., Anthony, C., Krishnakumar, A., Stone, G., Gerard, J., & Pemberton, S. (1997). Interparental conflict and youth problem behaviors: A meta-analysis. *Journal of Child and Family Studies, 6*, 233–247. <https://doi.org/10.1023/A:1025006909538>
- Bushman, B. J., Baumeister, R. F., & Phillips, C. M. (2001). Do people aggress to improve their mood? Catharsis beliefs, affect regulation opportunity, and aggressive responding. *Journal of Personality and Social Psychology, 81*, 17–32. <https://doi.org/10.1037/0022-3514.81.1.17>
- Caesar, P. L. (1988). Exposure to violence in the families-of-origin among wife-abusers and maritally nonviolent men. *Violence and Victims, 3*, 49–63.
- Campbell, J. C., Jones, A. S., Dienemann, J., Kub, J., Schollenberger, J., O'Campo, P., ... Wynne, C. (2002). Intimate partner violence and physical health consequences. *Archives of Internal Medicine, 162*, 1157–1163.
- Carlson, B. E. (2000). Children exposed to intimate partner violence: research findings and implications for intervention. *Trauma, Violence, & Abuse, 1*, 321–342. <https://doi.org/10.1177/1524838000001004002>
- Chapple, C. L. (2003). Examining intergenerational violence: Violent role modeling or weak parental controls? *Violence and Victims, 18*, 143–162. <https://doi.org/10.1891/vivi.2003.18.2.143>
- Coker, A. L., Davis, K. E., Arias, I., Desai, S., Sanderson, M., Brandt, H. M., & Smith, P. H. (2002). Physical and mental health effects of intimate partner violence for men and women. *American Journal of Preventive Medicine, 26*–268. [https://doi.org/10.1016/S0749-3797\(02\)00514-7](https://doi.org/10.1016/S0749-3797(02)00514-7)

- Coker, A. L., Smith, P. H., Bethea, L., King, M. R., & McKeown, R. E. (2000). Physical health consequences of physical and psychological intimate partner violence. *Archives of Family Medicine, 9*, 451–457.
- Conger, R. D., Wallace, L. E., Sun, Y., Simons, R. L., McLoyd, V. C., & Brody, G. H. (2002). Economic pressure in African American families: A replication and extension of the family stress model. *Developmental Psychology, 38*, 179–193. <https://doi.org/10.1037/0012-1649.38.2.179>
- Cusimano, A. M., & Riggs, S. A. (2013). Perceptions of interparental conflict, romantic attachment, and psychological distress in college students. *Couple and Family Psychology: Research and Practice, 2*, 45–59.
- DeKeseredy, W. S., & Schwartz, M. D. (1998). *Women abuse on campus: Results from the Canadian National Survey*. Thousand Oaks, CA: Sage.
- Dempster, A. P., Laird, N. M., & Rubin, D. B. (1977). Maximum likelihood from incomplete data via the em algorithm. *Journal of the Royal Statistical Society, 39*, 1–38. <https://doi.org/10.2307/2984875>
- Derrick, J. L., Testa, M., & Leonard, K. E. (2014). Daily reports of intimate partner verbal aggression by self and partner: Short-term consequences and implications for measurement. *Psychology of Violence, 4*, 416–431.
- Dobash, R. E., & Dobash, R. P. (1978). Wives: The appropriate victims of marital violence. *Victimology, 2*, 426–442.
- Downey, G., Bonica, C., & Rincon, C. (1999). *The development of adolescent romantic relationships*. (W. Furman, B. Brown, & C. Feiring, Eds.). New York: Cambridge University Press.
- Downey, G., & Feldman, S. I. (1996). Implications of rejection sensitivity for intimate relationships. *Journal of Personality and Social Psychology, 70*, 1327–1343. <https://doi.org/10.1037//0022-3514.70.6.1327>
- Downey, G., Irwin, L., Ramsay, M., & Ayduk, O. (2004). Rejection sensitivity and girls' aggression. *Girls and Aggression, 19*, 7–25. <https://doi.org/10.1007/978-1-4419-8985-7>
- Dutton, M. A., Haywood, Y., & El-Bayoumi, G. (1997). Impact of violence on women's health. In *Health care for women: Psychological, social, and behavioral influences*. (pp. 41–56). Washington, DC: American Psychological Association.
- Dutton, D. G., Nicholls, T. L., & Spidel, A. (2005). Female perpetrators of intimate abuse. *Journal of Offender Rehabilitation, 41*, 1-31. https://doi.org/10.1300/J076v41n04_01
- Edleson, J. L. (1999). Children's witnessing of adult domestic violence. *Journal of Interpersonal Violence, 14*, 839–870. <https://doi.org/10.1177/088626099014008004>

- Edwards, K. M., Dixon, K. J., Gidycz, C. A., & Desai, A. D. (2014). Family-of-origin violence and college men's reports of intimate partner violence perpetration in adolescence and young adulthood: The role of maladaptive interpersonal patterns. *Psychology of Men & Masculinity, 15*, 234–240. <https://doi.org/10.1037/a0033031>
- Ehrensaft, M. K., Cohen, P., Brown, J., Smailes, E., Chen, H., & Johnson, J. G. (2003). Intergenerational transmission of partner violence: A 20-year prospective study. *Journal of Consulting and Clinical Psychology, 71*, 741–753. <https://doi.org/10.1037/0022-006X.71.4.741>
- Ehrensaft, M. K., Moffitt, T. E., & Caspi, A. (2004). Clinically abusive relationships in an unselected birth cohort: Men's and women's participation and developmental antecedents. *Journal of Abnormal Psychology, 113*, 258–270.
- El-Sheikh, M. (2005). The role of emotional responses and physiological reactivity in the marital conflict-child functioning link. *Journal of Child Psychology and Psychiatry, and Allied Disciplines, 46*, 1191–1199. <https://doi.org/10.1111/j.1469-7610.2005.00418.x>
- Elmqvist, J., Hamel, J., Febres, J., Zapor, H., Wolford-clevenger, C., Brem, M., ... Stuart, G. L. (2016). Motivations for psychological aggression among dating college students. *Partner Abuse, 7*, 157–169. <https://doi.org/10.1891/1946-6560.7.2.157>
- Elmqvist, J., Wolford-Clevenger, C., Zapor, H., Febres, J., Shorey, R. C., Hamel, J., & Stuart, G. L. (2016). A gender comparison of motivations for physical dating violence among college students. *Journal of Interpersonal Violence, 31*, 186–203. <https://doi.org/10.1177/0886260514555130>
- Evans, S. E., Davies, C., & DiLillo, D. (2008). Exposure to domestic violence: A meta-analysis of child and adolescent outcomes. *Aggression and Violent Behavior, 13*, 131–140. <https://doi.org/10.1016/j.avb.2008.02.005>
- Finkel, E. J., & Eckhardt, C. I. (2011). Intimate partner violence. In J. A. Simpson & L. Campbell (Eds.), *The Oxford handbook of close relationships*. Oxford: New York.
- Follette, V. M., & Alexander, P. C. (1992). Dating violence: Current and historical correlates. *Behavioral Assessment, 14*, 39-52.
- Forke, C. M., Myers, R. K., Catalozzi, M., & Schwarz, D. F. (2008). Relationship violence among female and male college undergraduate students. *Archives of Pediatrics & Adolescent Medicine, 162*, 634–641. <https://doi.org/10.1001/archpedi.162.7.634>
- Fritz, M. S., & MacKinnon, D. P. (2007). Required sample size to detect the mediated effect. *Psychological Science, 18*, 233–239. <https://doi.org/10.1111/j.1467-9280.2007.01882.x>
- George, D., & Mallery, M. (2016). *SPSS for Windows step by step: A simple guide and reference* (14th ed.). New York, NY: Routledge.

- Golding, J. M. (1999). Intimate partner violence as a risk factor for mental disorders: A meta-analysis. *Journal of Family Violence, 14*, 99–132. Retrieved from <https://doi.org/10.1023/A:1022079418229>
- Gormley, B., & Lopez, F. G. (2010a). Correlates of psychological abuse perpetration in college dating relationships. *Journal of College Counseling, 13*, 4–17.
- Gormley, B., & Lopez, F. G. (2010b). Psychological abuse perpetration in college dating relationships: Contributions of gender, stress, and adult attachment orientations. *Journal of Interpersonal Violence, 25*, 204–218. <https://doi.org/10.1177/0886260509334404>
- Gover, A. R., Kaukinen, C., & Fox, K. A. (2008). The relationship between violence in the family of origin and dating violence among college students. *Journal of Interpersonal Violence, 23*, 1667–1693. <https://doi.org/10.1177/0886260508314330>
- Graham-Bermann, S. A., Gruber, G., Howell, K. H., & Girz, L. (2009). Factors discriminating among profiles of resilience and psychopathology in children exposed to intimate partner violence (IPV). *Child Abuse & Neglect, 33*, 648–660. <https://doi.org/10.1016/j.chiabu.2009.01.002>
- Graham-Bermann, S. A., & Levendosky, A. A. (1998). Traumatic stress symptoms in children of battered women. *Journal of Interpersonal Violence, 13*, 111–128. <https://doi.org/0803973233>
- Gratz, K. L., & Roemer, L. (2004). Multidimensional assessment of emotion regulation and dysregulation: Development, factor structure, and initial validation of the difficulties in emotion regulation scale. *Journal of Psychopathology and Behavioral Assessment, 26*, 41–54. <https://doi.org/10.1023/B:JOBA.0000007455.08539.94>
- Hafen, C. A., Spilker, A., Chango, J., Marston, E. S., & Allen, J. P. (2014). To accept or reject? The impact of adolescent rejection sensitivity on early adult romantic relationships. *Journal of Research on Adolescence, 24*, 55–64. <https://doi.org/10.1111/jora.12081>
- Hamby, S., Finkelhor, D., Turner, H., & Ormrod, R. (2011). Children's exposure to intimate partner violence and other family violence. *National Survey Of Children's Exposure To Violence*. Retrieved from <https://www.ncjrs.gov/pdffiles1/ojdp/232272.pdf>
- Harned, M. S. (2001). Abused women or abused men? An examination of the context and outcomes of dating violence. *Violence and Victims, 16*, 269–285.
- Harned, M. S. (2002). A multivariate analysis of risk markers for dating violence victimization. *Journal of Interpersonal Violence, 17*, 1179–1197. <https://doi.org/10.1177/088626002237401>

- Hazen, A. L., Connelly, C. D., Kelleher, K. J., Barth, R. P., & Landsverk, J. A. (2006). Female caregivers' experiences with intimate partner violence and behavior problems in children investigated as victims of maltreatment. *Pediatrics, 117*, 99–109. <https://doi.org/10.1542/peds.2004-2542>
- Huth-Bocks, A., Levendosky, A., & Semel, M. (2001). The direct and indirect effects of domestic violence on young children's intellectual functioning. *Journal of Family Violence, 16*, 269–290. <https://doi.org/10.1023/A:1011138332712>
- Jaffe, P. G., Lemon, N. K. D., Sandier, J., & Wolfe, D. A. (1996). *Working Together To End Domestic Violence*. Tampa, FL: Mencorp.
- Jankowski, M. K., Leitenberg, H., Henning, K., & Coffey, P. (1999). Intergenerational transmission of dating aggression as a function of witnessing only same sex parents vs. opposite sex parents vs. both parents as perpetrators of domestic violence. *Journal of Family Violence, 14*, 267–279. <https://doi.org/10.1023/A:1022814416666>
- Jennings, W. G., Okeem, C., Piquero, A. R., Sellers, C. S., Theobald, D., & Farrington, D. P. (2017). Dating and intimate partner violence among young persons ages 15–30: Evidence from a systematic review. *Aggression and Violent Behavior, 33*, 107–125. <https://doi.org/10.1016/j.avb.2017.01.007>
- Kinsfogel, K. M., & Grych, J. H. (2004). Interparental conflict and adolescent dating relationships: Integrating cognitive, emotional, and peer influences. *Journal of Family Psychology, 18*, 505–515. <https://doi.org/10.1037/0893-3200.18.3.505>
- Kitzmann, K. M., Gaylord, N. K., Holt, A. R., & Kenny, E. D. (2003). Child witnesses to domestic violence: A meta-analytic review. *Journal of Consulting and Clinical Psychology, 71*, 339–352. <https://doi.org/10.1037/0022-006X.71.2.339>
- Kwong, M. J., Bartholomew, K., & Dutton, D. G. (1999). Gender differences in patterns of relationship violence in Alberta. *Canadian Journal of Behavioural Science, 31*, 150. <https://doi.org/10.1037/h0087083>
- Langhinrichsen-Rohling, J., Misra, T. A., Selwyn, C., & Rohling, M. L. (2012). Rates of bidirectional versus unidirectional intimate partner violence across samples, sexual orientations, and race/ethnicities: A comprehensive review. *Partner Abuse, 3*, 1–2. <https://doi.org/10.1891/1946-6560.3.2.e3>
- Lawrence, E., Yoon, J., Langer, A., & Ro, E. (2009). Is psychological aggression as detrimental as physical aggression? The independent effects of psychological aggression on depression and anxiety symptoms. *Violence and Victims, 24*, 20–35. <https://doi.org/10.1891/0886-6708.24.1.20>
- Leisring, P. A. (2012). Physical and emotional abuse in romantic relationships: Motivation for perpetration among college women. *Journal of Interpersonal Violence, 28*, 1437–1454. <https://doi.org/10.1177/0886260512468236>

- Lilly, M. M., & Mercer, M. C. (2012). The interaction of emotion regulation and world assumptions in predicting female intimate partner violence perpetration. *Partner Abuse*, 3, 439–457. <http://doi.org/10.1891/1946-6560.5.4.439>
- Lucas-Thompson, R. G., & Granger, D. A. (2014). Parent-child relationship quality moderates the link between marital conflict and adolescents' physiological responses to social evaluative threat. *Journal of Family Psychology*, 28, 538–548.
- Magdol, L., Moffitt, T. E., Caspi, A., Newman, D. L., Fagan, J., & Silva, P. A. (1997). Gender differences in partner violence in a birth cohort of 21-year-olds: Bridging the gap between clinical and epidemiological approaches. *Journal Of Consulting And Clinical Psychology*, 65, 68–78. <https://doi.org/10.1037/0022-006X.65.1.68>
- Maldonado, R. C., Watkins, L. E., & DiLillo, D. (2014). The interplay of trait anger, childhood physical abuse, and alcohol consumption in predicting intimate partner aggression. *Journal of Interpersonal Violence*, 30, 1112–1127. <https://doi.org/10.1177/0886260514539850>
- Masten, A. S., & Coatsworth, J. D. (1998). The development of competence in favorable and unfavorable environments: Lessons from research on successful children. *American Psychologist*, 53, 205–220. <https://doi.org/10.1037/0003-066X.53.2.205>
- McCloskey, L. A., & Walker, M. (2000). Posttraumatic stress in children exposed to family violence and single-event trauma. *Journal of the American Academy of Child and Adolescent Psychiatry*, 39, 108–115.
- McDonald, K. L., Bowker, J. C., Rubin, K. H., Laursen, B., & Duchene, M. S. (2010). Interactions between rejection sensitivity and supportive relationships in the prediction of adolescents' internalizing difficulties. *Journal of Youth and Adolescence*, 39, 563–574. <https://doi.org/10.1007/s10964-010-9519-4>
- McDonald, R., Jouriles, E. N., Ramisetty-Mikler, S., Caetano, R., & Green, C. E. (2006). Estimating the number of American children living in partner-violent families. *Journal of Family Psychology*, 20, 137–142. <https://doi.org/10.1037/0893-3200.20.1.137>
- McDonald, R., Jouriles, E. N., Tart, C. D., & Minze, L. C. (2009). Children's adjustment problems in families characterized by men's severe violence toward women: Does other family violence matter? *Child Abuse & Neglect*, 33, 94–101. <https://doi.org/10.1016/j.chiabu.2008.03.005>
- Mckinney, C. M., Caetano, R., Ramisetty-Mikler, S., & Nelson, S. (2010). Childhood family violence and perpetration and victimization of intimate partner violence: Findings from a national population-based study of couples. *Annals of Epidemiology*, 19, 25–32. <https://doi.org/10.1016/j.annepidem.2008.08.008>. Childhood

- McNulty, J. K., & Hellmuth, J. C. (2008). Emotion regulation and intimate partner violence in newlyweds. *Journal of Family Psychology, 22*, 794–797. <https://doi.org/10.1037/a0013516>
- Milletich, R. J., Kelley, M. L., Doane, A. N., & Pearson, M. R. (2010). Exposure to interparental violence and childhood physical and emotional abuse as related to physical aggression in undergraduate dating relationships. *Journal of Family Violence, 25*, 627–637. <https://doi.org/10.1007/s10896-010-9319-3>
- Mohr, W. K., Noone Lutz, M. J., Fantuzzo, J. W., & Perry, M. A. (2000). Children exposed to family violence: A review of empirical research from a developmental-ecological perspective. *Trauma, Violence, & Abuse, 1*, 264–283. <https://doi.org/10.1177/1524838000001003004>
- Moretti, M. M., Bartolo, T., Craig, S., Slaney, K., & Odgers, C. (2014). Gender and the transmission of risk: A prospective study of adolescent girls exposed to maternal versus paternal interparental violence. *Journal of Research on Adolescence, 24*, 80–92. <https://doi.org/10.1111/jora.12065>
- Moretti, M. M., Obsuth, I., Odgers, C. L., & Reebye, P. (2006). Exposure to maternal vs. paternal partner violence, PTSD, and aggression in adolescent girls and boys. *Aggressive Behavior, 32*, 385–395. <https://doi.org/10.1002/ab.20137>
- Murphy, C. M., & Blumenthal, D. R. (2000). The mediating influence of interpersonal problems on the intergenerational transmission of relationship aggression. *Personal Relationships, 7*, 203–218. <https://doi.org/10.1111/j.1475-6811.2000.tb00012.x>
- Murphy, C. M., & Hoover, S. A. (1999). Measuring emotional abuse in dating relationships as a multifactorial construct. *Violence and Victims, 14*, 39–53.
- Neufeld, J., McNamara, J. R., & Ertl, M. (1999). Incidence and prevalence of dating partner abuse and its relationship to dating practices. *Journal of Interpersonal Violence, 14*, 125–137.
- O’Leary, K. D. (1999). Psychological abuse: A variable deserving critical attention in domestic violence. *Violence and Victims, 14*, 3–23.
- O’Leary, K. D., Malone, J., & Tyree, A. (1994). Physical aggression in early marriage: Prerelationship and relationship effects. *Journal of Consulting and Clinical Psychology, 62*, 594–602. <https://doi.org/10.1037/0022-006X.62.3.594>
- Pico-Alfonso, M., Garcia-Linares, I., Celda-Navarro, N., Blasco-Ros, C., Echeburua, E., & Martinez, M. (2006). The impact of physical, psychological, and sexual intimate male partner violence on women’s mental health: Depressive symptoms, posttraumatic stress disorder, state anxiety, and suicide. *Journal of Women’s Health, 15*, 599–609.

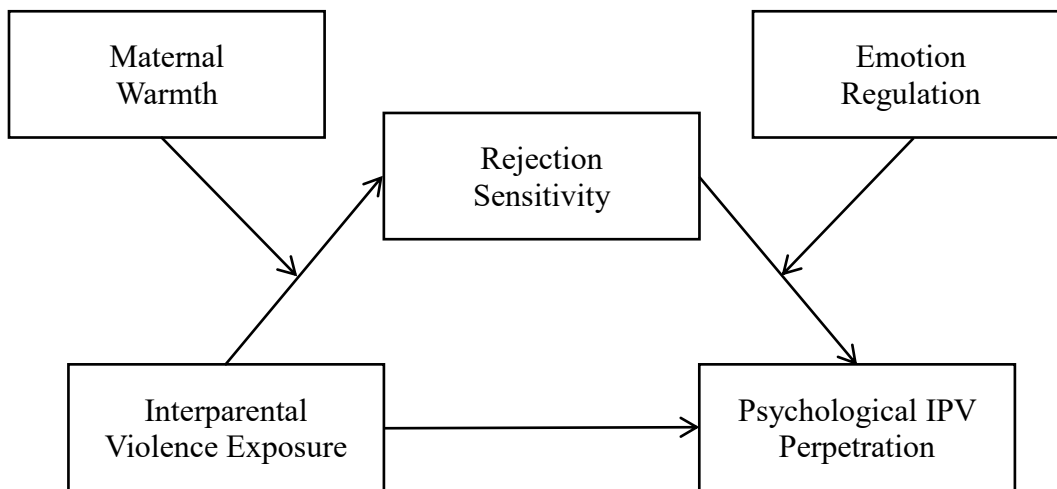
- Piotrowski, C. C. (2011). Patterns of adjustment among siblings exposed to intimate partner violence. *Journal of Family Psychology, 25*, 19–28. <https://doi.org/10.1037/a0022428>
- Price, R. K., Bell, K. M., & Lilly, M. M. (2011). The interactive effects of PTSD, emotion regulation, and anger management strategies on female-perpetrated IPV. *Violence and Victims, 29*, 907–926.
- Rhoades, K. A. (2008). Children's responses to interparental conflict: A meta-analysis of their associations with child adjustment. *Child Development, 79*, 1942–1956. <https://doi.org/10.1111/j.1467-8624.2008.01235.x>
- Riggs, D. S., & O'Leary, K. D. (1996). Aggression between heterosexual dating partners. *Journal of Interpersonal Violence, 11*, 519–540. <https://doi.org/10.1177/088626096011004005>
- Sackett, L. A., & Saunders, D. G. (1999). The impact of different forms of psychological abuse. *Violence and Victims, 14*, 1–13.
- Salwen, J. K., Hymowitz, G. F., Bannon, S. M., & O'Leary, K. D. (2015). Weight-related abuse: Perceived emotional impact and the effect on disordered eating. *Child Abuse & Neglect, 45*, 163–171. <https://doi.org/10.1016/j.chiabu.2014.12.005>
- Schafer, J., Caetano, R., & Clark, C. L. (1998). Rates of intimate partner violence in the United States. *American Journal of Public Health, 88*, 1702–1704. <https://doi.org/10.2105/AJPH.88.11.1702>
- Seedat, S., Stein, M. B., & Forde, D. R. (2005). Association between physical partner violence, posttraumatic stress, childhood trauma, and suicide attempts in a community sample of women. *Violence and Victims, 20*, 87–98.
- Shorey, R. C., Brasfiels, H., Febres, J., Cornelius, T. L., & Stuart, G. L. (2013). A comparison of three different scoring methods for self-report measures of psychological aggression in a sample of college females. *Violence Victims, 27*, 973–990.
- Silvern, L., Karyl, J., Waelde, L., Hodges, W. F., Starek, J., Heidt, E., & Min, K. (1995). Retrospective reports of parental partner abuse: Relationships to depression, trauma symptoms and self-esteem among college students. *Journal of Family Violence, 10*, 177–202. <https://doi.org/10.1007/BF02110599>
- Silvers, J. A., McRae, K., Gabrieli, J. D. E., Gross, J. J., Remy, K. A., & Ochsner, K. N. (2012). Age-related differences in emotional reactivity, regulation, and rejection sensitivity in adolescence. *Emotion, 12*, 1235–1247. <https://doi.org/10.1037/a0028297>
- Skopp, N. A., McDonald, R., Jouriles, E. N., & Rosenfield, D. (2007). Partner aggression and children's externalizing problems: Maternal and partner warmth as protective factors. *Journal of Family Psychology, 21*, 459–467. <https://doi.org/10.1037/0893-3200.21.3.459>

- Smith, T. W., Cribbet, M. R., Nealey-Moore, J. B., Uchino, B. N., Williams, P. G., Mackenzie, J., & Thayer, J. F. (2011). Matters of the variable heart: Respiratory sinus arrhythmia response to marital interaction and associations with marital quality. *Journal of Personality and Social Psychology, 100*, 103–119. <https://doi.org/10.1037/a0021136>
- Stein, A. L., Tran, G. Q., & Fisher, B. S. (2009). Intimate partner violence experience and expectations among college women in dating relationships: Implications for behavioral interventions. *Violence and Victims, 24*, 153–162. <https://doi.org/10.1891/0886-6708.24.2.153>
- Stith, S. M., Rosen, K. H., Middleton, K. A., Busch, A. L., Lundeberg, K., & Carlton, R. P. (2000). The intergenerational transmission of spouse abuse: A meta-analysis. *Journal of Marriage and Family, 62*, 640–654. <https://doi.org/10.1111/j.1741-3737.2000.00640.x>
- Straus, M. A. (2004a). Prevalence of violence against dating partners by male and female university students worldwide. *Violence Against Women, 10*, 790–811. <https://doi.org/10.1177/1077801204265552>
- Straus, M. A. (2004b). *Scoring the CTS2 and CTSP*. Durham: Family Research Laboratory, University of New Hampshire.
- Straus, M. A., Hamby, S. L., Boney-McCoy, S., & Sugarman, D. B. (1996). The Revised Conflict Tactics Scales (CTS2): Development and preliminary psychometric data. *Journal of Family Issues, 17*, 283–316. <https://doi.org/10.1177/019251396017003001>
- Stuart, G. L., Moore, T. M., Hellmuth, J. C., Ramsey, S. E., & Kahler, C. W. (2006). Reasons for intimate partner violence perpetration among arrested women. *Violence against Women, 12*, 609–621. <https://doi.org/10.1177/1077801206290173>
- Tabachnick, B. G., & Fidell, L. S. (2013). *Using multivariate statistics* (6th ed.). Boston, MA: Pearson Education.
- Testa, M., Hoffman, J. H., & Leonard, K. E. (2011). Female intimate partner violence perpetration: Stability and predictors of mutual and nonmutual aggression across the first year of college. *Aggressive Behavior, 37*, 362–373. <https://doi.org/10.1002/ab.20391>
- Ulman, A., & Straus, M. A. (2003). Violence by children against mothers in relation to violence between parents and corporal punishment by parents. *Journal of Comparative Family Studies, 34*, 41–60.
- White, J. W., Merrill, L. L., & Koss, M. P. (2001). Predictors of premilitary courtship violence in a navy recruit sample. *Journal of Interpersonal Violence, 16*, 910–927. <https://doi.org/10.1177/088626001016009004>

- Whitfield, C. L., Anda, R. F., Dube, S. R., & Felitti, V. J. (2003). Violent childhood experiences and the risk of intimate partner violence in adults: Assessment in a large health maintenance organization. *Journal of Interpersonal Violence, 18*, 166–185. <https://doi.org/10.1177/0886260502238733>
- Williams, J., Ghandour, R., & Kub, J. (2008). Female perpetration of violence in heterosexual intimate relationships: Adolescence through adulthood. *Trauma, Violence, & Abuse, 9*, 227–249. <https://doi.org/10.1177/1524838008324418.FEMALE>

APPENDIX A

PROPOSED MODERATED MEDIATION MODEL



APPENDIX B
RECRUITMENT MATERIAL

Study Name: Experiences and Emotional Health in Close Relationships

Abstract: This study examines the relationships between early adverse experiences and psychological health in family and romantic relationships.

Description: This research study examines how early adverse experiences, such as witnessing parental conflict, relate to psychological health in families and romantic partners. Participants will complete questionnaires regarding exposure to parental conflict, social experiences, emotional health, and relationship quality with parents and romantic partner.

Eligibility Requirements: Must be at least 18 years old and currently in a romantic relationship or have been in a relationship in the past 6 months.

Course Restrictions: Participants must currently be enrolled in a section of PSYC 102.

Duration: 45-60 minutes

Credits: 2

APPENDIX C

INFORMED CONSENT FORM

I agree to participate in the research project titled “Experiences and Emotional Health in Close Relationships” being conducted by Mikhaella Hodges, B.A., and Michelle Lilly, Ph.D., at Northern Illinois University. This study has been reviewed and approved by the Northern Illinois University Institutional Review Board. Please read this form carefully and ask any questions you may have before agreeing to take part in this study.

Purpose of the study: The study is interested in better understanding how early adverse experiences, including witnessing conflict between parents, can impact relationships in adulthood.

Your participation: I understand that if I agree to participate in this study, I will be asked to do the following: complete questionnaires online asking me to recall if I ever witnessed conflict between my parents, respond to interpersonal scenarios, describe emotional experiences, and report on behaviors in my romantic relationship. I understand that the total time this study will take is approximately 45 to 60 minutes.

Voluntary participation: I am aware that my participation is voluntary and may be withdrawn at any time without penalty or prejudice, and that if I have any additional questions concerning this study, I may contact Dr. Michelle Lilly at (815) 753-4602 or Mikhaella Hodges at (815) 753-7186. I understand that if I want more information regarding my rights as a research participant, I may contact the Office of Research Compliance at Northern Illinois University at (815) 753-8588.

Potential benefits: I understand that my participation in this study is adding to society’s understanding of how early adverse events impact relationships in adulthood. By participating in this study, I am helping researchers and society better understand how to reduce negative outcomes for people who have experienced conflict in their family of origin.

Potential risks: There are certain risks or discomforts associated with this research. I will be asked about some experiences and feelings that may be difficult or uncomfortable to discuss. Some of the questionnaires will ask me to recall whether I have witnessed violence between my parents and how those events may have affected me. Remembering these experiences may be upsetting or distressing. Additionally, answering questions about some of these events may be uncomfortable. I understand that if I feel distressed, I can stop at any point. I am also free to skip any questions that I do not wish to answer. Withdrawal from the present study will not affect my relationship with the researchers, PSYC 102 instructors, or NIU in any way.

Protection of confidentiality: I understand that all information gathered during this experiment will be kept confidential. My student ID will not be kept with my responses to questionnaires. Furthermore, I understand that any information I provide will be stored in a locked filing cabinet

and password-protected computer files. The data I provide will never be reported individually; all information will be presented in groups. These steps are all taken to protect my identity and anonymity in the research process.

I understand that my consent to participate in this project does not constitute a waiver of any legal rights I might have as a result of my participation.

I agree to participate in the research study:

- Yes
- No

APPENDIX D
DEBRIEFING FORM

Thank you for participating in this research study. This study examines the associations between exposure to early conflict between parents, emotional health, and relationship quality in family and romantic relationships.

Some of these questions may have been difficult to answer, or made you think about things that made you feel distressed or uncomfortable. Below this message, please note the list of free or low-cost counseling resources in the DeKalb area. We encourage you to look into these resources if you would like to talk to someone about how you may be feeling.

If you would like to speak with the researchers regarding this study or for an additional copy of these resources, please feel free to contact Dr. Michelle Lilly at (815) 753-4602 or at mlilly1@niu.edu, or Mikhaella Hodges at mhodges2@niu.edu.

If you have any complaints, concerns, or questions about this study, please feel free to contact the Office of Research Compliance at Northern Illinois University at (815) 753-8588.

COUNSELING RESOURCES IN DEKALB

DeKalb and Northern Illinois University are fortunate in having several free or low-cost counseling services available to the community. This list is intended to help you find timely and appropriate assistance. Sometimes one agency will have a high demand for services that necessitates a waiting period for new clients, or you may have personal reasons for choosing one agency over another. Counselors at any of these agencies will gladly assist you in making a final decision about where to seek help.

PSYCHOLOGICAL SERVICES CENTER,

NIU Phone: 815-753-0591

Address Normal Road and Lincoln Hwy. Fees: No fee for students. Faculty, staff, and community members charged on a sliding scale. Hours: Monday – 12:00 noon – 8:00 pm Tuesday – 11:00 a.m. – 7:00 p.m. Wednesday–Friday 9:00am to 5:00 pm. Open whenever NIU is open, including breaks

Description of Services: Individual, couples, family, and group psychotherapy. Intellectual, personality, and academic assessments. Clients are generally seen by advanced level graduate student staff under faculty supervision. Services tailored to meet a client's specific needs. (Handicapped accessible.)

BEN GORDON COMMUNITY MENTAL HEALTH CENTER

(Community Resource) Phone: 815-756-4875

Address: 12 Health Services Drive – DeKalb Fees: Sliding fee scale based on income. Insurance accepted. Hours: Monday-Thursday: 8:00am – 8:30pm Friday: 8:00am–5:00pm After Hours: 1-866-242-0111 Crisis Line

Description of Services: Comprehensive counseling services to all residents of DeKalb County. Services to all persons affected by mental health problems, substance abuse, and family/child welfare concerns. 24-hour sexual assault/abuse services can be accessed through the Crisis Line.

First appointment scheduled within 30 days. (Handicapped accessible and on Campus Bus Route).

FAMILY SERVICE AGENCY, CENTER FOR COUNSELING

(Community Resource) Phone: 815-758-8636

Address: 14 Health Services Drive – DeKalb Fees: \$75.00 per visit. Insurance accepted, including NIU Student Insurance. Payment plans and scholarship funds available. Hours: Monday–Wednesday: 9:00am–8:00 pm Thursday–Friday: 8:00am–4:00pm Additional hours available by appointment.

Description of Services: Individual, couple, group counseling for children, adults, senior citizens, and families. First appointment scheduled within 1-7 days. (Handicapped accessible and on Campus Bus Route).

COUNSELING & CONSULTATION SERVICES

NIU (STUDENTS *ONLY*) Phone: 815-753-1206

Address: Campus Life Building – 200 Fees: None for counseling, modest testing fees. Hours: 8:00am – 4:30pm Monday-Friday. Open whenever NIU is open, including breaks After Hours: Assistance after hours available by calling – 815-753-1212

Description of Services: This service provides students with short-term, individual and group counseling for a broad range of personal concerns. Career counseling services include interest assessment, workshops, and use of computerized career counseling programs. Educational counseling services include assistance with test anxiety and study skills. Assessments of drug and alcohol abuse are also provided. First appointment scheduled within 3-7 days. (Handicapped Accessible)

COUNSELING LABORATORY

NIU Phone: 815-753-9312

Address: 416 Graham Hall Fees: None for students, faculty, or staff. Hours: Call for available counseling hours.

Description of Services: A wide range of services are offered by the counselors including both personal and vocational counseling. In general, the approach used is one that promotes growth and focuses on increasing emotional well-being and self-awareness. All counselors are either doctoral or masters level students who are being supervised by members of the counseling faculty. First appointments scheduled within 3-5 days.

FAMILY CENTER

NIU Phone: 815-753-1684

Address: 429 Garden Road Fees: \$5.00 per session fee for students. Faculty, staff, and community members charged on a sliding scale. No one will be denied services due to inability to pay. Hours: Wednesday – 2:00 pm – 10:00pm

Thursday – 10:00 am – 10:00 pm. By appointment Monday through Friday. Open whenever NIU is open, including breaks.

Description of Services: Individual, couple, and family counseling. Services provided by graduate students under the supervision of Marriage and Family Therapy faculty. First appointment scheduled within 4 days.

UNIVERSITY RESOURCES

Phone: 815-753-0320

Address: 105 Normal Road Fee: No fee for students, faculty or staff Hours: Monday – Friday 8:00am – 4:30pm

Evening hours by appointment. Open whenever NIU is open, including breaks.

Description of Services: Short-term counseling to individuals about their academic progress, careers, personal development, and other special concerns. Offered also are support groups, information and referral, issues regarding workplace disputes, and issues involving sexual harassment. (This facility is handicapped accessible.)

Private counselors, clinical social workers, and psychologists are available in the yellow pages of the phone book under “Psychologist” or “Mental Health Services” or “Social Services.”

APPENDIX E

ACCESS TO THE STUDY MEASURES

Access to the Revised Conflict Tactics Scale (CTS2) was purchased by the lab and adapted in accordance to Straus (2004). The Childhood Trauma Questionnaire (CTQ), Rejection Sensitivity Questionnaire (RSQ), and Difficulties in Emotion Regulation Scale (DERS) were publicly accessible and available for researchers. The request for permission to access and use the Parental Warmth, Support, and Hostility Scale and the Multidimensional Measure of Emotional Abuse (MMEA) was granted by the original authors of the scales.

APPENDIX F
DEMOGRAPHICS FORM

What is your gender?

- Male Transsexual
 Female Transgender

What is your sexual orientation?

- Heterosexual (straight) Bisexual
 Homosexual (gay, lesbian) Asexual

How old are you? _____

Your current relationship status (check one):

- Single but previously in a relationship within the past 6 months
 Dating
 Living with partner
 Married

How long have you been in your current or recent relationship? (In months) _____

What category best describes your race or ethnicity?

- Native American
 Asian
 Black, African-American
 Latino, Hispanic-American
 Caucasian, European-American
 Biracial (mixed): specify _____
 Other: specify _____

What is the highest level of education you have completed?

- Less than high school
 High school graduation/GED
 Some college
 College graduate
 Postgraduate degree

Are you employed at this time?

- Yes, full time
 Yes, part time
 No

How fluent are you in English?

- Not Very Fluent
 Somewhat Fluent
 Very Fluent

What is the status of your biological parents' relationship?

- Married
 Divorced
 Separated
 Living Together

Other (please specify): _____

If your parents are separated or divorced, how old were you when this happened? _____

Is there someone like a **mother-figure** in your life?

Yes

No

If "Yes," what is this woman's relationship to you?

Biological mother

Stepmother

Father's girlfriend

Grandmother (please specify): ____ Mother's parent ____ Father's parent

Other (please specify): _____

If "Yes," did this person live in your home for the entirety of your childhood?

Yes

No

If "No," enter the age when this person started and then ended living with you:

____ Age when I started living with this person

____ Age when I no longer lived with this person (enter "18" if you lived with this person through the age of 18)

Is there someone like a **father-figure** in your life?

Yes

No

If "Yes," what is this man's relationship to you?

Biological father

Stepfather

Mother's boyfriend

Grandfather (please specify): ____ Mother's parent ____ Father's parent

Other (please specify): _____

If "Yes," did this person live in your home for the entirety of your childhood?

Yes

No

If "No," enter the age when this person started and then ended living with you:

____ Age when I started living with this person

____ Age when I no longer lived with this person (enter "18" if you lived with this person through the age of 18)

Survey before the CTS2

Have you ever seen verbal or physical arguments between your parents while growing up? This can include biological parents or step-parents.

Yes

No

Who was the mother-figure involved?

Biological mother

Stepmother

Father's girlfriend

Other (please specify): _____

Who was the father-figure involved?

Biological father

Stepfather

Mother's boyfriend

Other (please specify): _____

If yes, identify a period of time when it was the worst in your childhood (before 18 years of age):

Age at which you first saw it happen: _____

Age at which you last saw it happen: _____

For the following questions please focus on a year when it was worst while growing up when you saw these fights between your parents.

APPENDIX G

REVISED CONFLICT TACTICS SCALE (CTS2) – ADAPTED VERSION

No matter how well parents get along, there are times when they disagree, get annoyed with each other, want different things from each other, or just have spats or fights because they are in a bad mood, are tired, or for some other reason. Parents also have many different ways of trying to settle their differences with each other. This is a list of things that might happen when your parents had differences or were angry with each other. Please mark how many times each of your parents did each of these things during a year when it was worst while growing up. Please choose the number indicating the number of times they have done each of these things.

1	2	3	4	5	6	0
Once	Twice	3 – 5 times	6 – 10 times	11 – 20 times	More than 20 times	This has never happened

1. Mother showed she cared about father even when they disagreed
2. Father showed he cared about mother even when they disagreed
3. Mother explained her side of a disagreement to father
4. Father explained his side of a disagreement to mother
5. Mother insulted or swore at father
6. Father insulted or swore at mother
7. Mother threw something at father that could hurt
8. Father threw something at mother that could hurt
9. Mother twisted father's arm or hair
10. Father twisted mother's arm or hair
11. Mother had a sprain, bruise, or small cut because of a fight with father
12. Father had a sprain, bruise, or small cut because of a fight with mother
13. Mother showed respect for father's feelings about an issue
14. Father showed respect for mother's feelings about an issue
15. Mother pushed or shoved father
16. Father pushed or shoved mother
17. Mother used a knife or gun on father
18. Father used a knife or gun on mother
19. Mother passed out from being hit on the head by father in a fight
20. Father passed out from a hit on the head in a fight with mother
21. Mother called father fat or ugly
22. Father called mother fat or ugly
23. Mother punched or hit father with something that could hurt
24. Father punched or hit mother with something that could hurt
25. Mother destroyed something belonging to father
26. Father destroyed something belonging to mother
27. Mother went to a doctor because of a fight with father

28. Father went to a doctor because of a fight with mother
29. Mother choked father
30. Father choked mother
31. Mother shouted or yelled at father
32. Father shouted or yelled at mother
33. Mother slammed father against a wall
34. Father slammed mother against a wall
35. Mother said she was sure they could work out a problem
36. Father said he was sure they could work out a problem
37. Mother needed to see a doctor because of a fight with father, but didn't go
38. Father needed to see a doctor because of a fight with mother, but didn't go
39. Mother beat up father
40. Father beat up mother
41. Mother grabbed father
42. Father grabbed mother
43. Mother stomped out of the room or house or yard when she had a disagreement with father
44. Father stomped out of the room or house or yard when he had a disagreement with mother
45. Mother slapped father
46. Father slapped mother
47. Mother had a broken bone from a fight with father
48. Father had a broken bone from a fight with mother
49. Mother suggested a compromise to a disagreement with mother
50. Father suggested a compromise to a disagreement with mother
51. Mother burned or scalded father on purpose
52. Father burned or scalded father on purpose
53. Mother did something to spite father
54. Father did something to spite mother
55. Mother threatened to hit or throw something at father
56. Father threatened to hit or throw something at mother
57. Mother felt physical pain that still hurt the next day because of a fight with father
58. Father still felt physical pain the next day because of a fight with mother
59. Mother kicked father
60. Father kicked mother
61. Mother agreed to try a solution to a disagreement suggested by father
62. Father agreed to try a solution to a disagreement suggested by mother

APPENDIX H

MULTIDIMENSIONAL MEASURE OF EMOTIONAL ABUSE (MMEA)

The following questions ask about the relationship with your partner or ex-partner. Please report how often each of these things has happened in the last six months with your current partner (or if not currently in a relationship, report on the last 6 months of your recent relationship with your ex-partner). Please choose the number indicating the number of times you have done each of these things.

1	2	3	4	5	6	7	0
Once	Twice	3 – 5 times	6 – 10 times	11 – 20 times	More than 20 times	Never in the past 6 months	This has never happened

1. Asked your partner where they had been or who they were with in a suspicious manner.
2. Secretly searched through your partner's belongings.
3. Tried to stop your partner from seeing certain friends or family members.
4. Complained that your partner spends too much time with friends.
5. Got angry because your partner went somewhere without telling you.
6. Tried to make your partner feel guilty for not spending enough time together.
7. Checked up on your partner by asking friends or relatives where they were or who they were with.
8. Said or implied that your partner was stupid.
9. Called your partner worthless.
10. Called your partner ugly.
11. Criticized your partner's appearance.
12. Called your partner a loser, failure, or similar term.
13. Belittled your partner in front of other people.
14. Said that someone else would be a better partner
15. Became so angry that you were unwilling to talk.
16. Acted cold or distant when angry.
17. Refused to have any discussion of a problem.
18. Changed the subject on purpose when your partner was trying to discuss a problem.
19. Refused to acknowledge a problem that your partner felt was important.
20. Sulked or refused to talk about an issue.
21. Intentionally avoided your partner during a conflict or disagreement.
22. Became angry enough to frighten your partner.
23. Put your face right in front of your partner's to make a point more forcefully.
24. Threatened to hit your partner.
25. Threatened to throw something at your partner.
26. Threw, smashed, hit, or kicked something in front of your partner.
27. Drove recklessly to frighten your partner
28. Stood or hovered over your partner during a conflict or disagreement.

APPENDIX I

REJECTION SENSITIVITY QUESTIONNAIRE (RSQ)

Each of the items below describes things college students sometimes ask of other people. Please imagine that you are in each situation. You will be asked to answer the following questions for each situation:

A) How concerned or anxious would you be about how the other person would respond?

1	2	3	4	5	6
very unconcerned					very concerned

B) How do you think the other person would be likely to respond?

1	2	3	4	5	6
very unlikely					very likely

1. You ask someone in class if you can borrow his/her notes.
2. You ask your boyfriend/girlfriend to move in with you.
3. You ask your parents for help in deciding what programs to apply to.
4. You ask someone you don't know well out on a date.
5. Your boyfriend/girlfriend has plans to go out with friends tonight, but you really want to spend the evening with him/her, and you tell him/her so.
6. You ask your parents for extra money to cover living expenses.
7. After class, you tell your professor that you have been having some trouble with a section of the course and ask if he/she can give you some extra help.
8. You approach a close friend to talk after doing or saying something that seriously upset him/her.
9. You ask someone in one of your classes to coffee.
10. After graduation, you can't find a job and ask your parents if you can live at home for a while.
11. You ask your friend to go on a vacation with you over Spring Break.
12. You call your boyfriend/girlfriend after a bitter argument and tell him/her you want to see him/her.
13. You ask a friend if you can borrow something of his/hers.
14. You ask your parents to come to an occasion important to you.
15. You ask a friend to do you a big favor.
16. You ask your boyfriend/girlfriend if he/she really loves you.
17. You go to a party and notice someone on the other side of the room and then you ask them to dance.
18. You ask your boyfriend/girlfriend to come home to meet your parents.

APPENDIX J

PARENTAL WARMTH, SUPPORT, AND HOSTILITY SCALE

Think again about your primary **mother-figure** in your life. Please reflect on the degree to which each of the following statements currently applies to your relationship with your mother. Select the appropriate number for each item.

0	1	2	3
Never	Rarely	Sometimes	Usually

When you and your mother spend time talking or doing things together, how often:

1. Does your mother tell you she loves you?
2. Does your mother criticize you or your ideas?
3. Does your mother understand the way you feel about things?
4. Does your mother act loving and affectionate towards you?
5. Does your mother insult or swear at you?
6. Do you feel like your mother is a good listener?
7. Does your mother try to understand your point of view?
8. Does your mother help you do something that is important to you?
9. Does your mother shout or yell at you because she's mad at you?
10. Does your mother act supportive and understanding towards you?
11. Does your mother listen carefully to your point of view?
12. Does your mother let you know that she really cares about you?
13. Does your mother have a good laugh with you when something is funny?

APPENDIX K

DIFFICULTIES IN EMOTION REGULATION SCALE (DERS)

APPENDIX L

CHILDHOOD TRAUMA QUESTIONNAIRE (CTQ)

These questions ask about some of your experiences growing up as a child and a teenager. Although these questions are of a personal nature, please try to answer as honestly as you can. For each question, choose the response that best describes how you feel. Please use the following scale:

1	2	3	4	5
Never True	Rarely True	Sometimes True	Often True	Very Often True

When I was growing up...

1. I didn't have enough to eat
2. I knew that there was someone to take care of me and protect me
3. People in my family called me things like "stupid," "lazy," or "ugly"
4. My parents were too drunk or high to take care of the family
5. There was someone in the family who helped me feel that I was important in a special way
6. I had to wear dirty clothes
7. I felt loved
8. I thought my parents wished I had never been born
9. I got hit so hard by someone in the family that I had to see a doctor or go to the hospital
10. There was nothing I wanted to change about my family
11. People in my family hit me so hard that it left me with bruises or marks
12. I was punished with a belt, a board, a cord, or some other hard object
13. People in my family looked out for each other
14. People in my family said hurtful or insulting things to me
15. I believe that I was physically abused
16. I had the perfect childhood
17. I got hit or beaten so badly that it was noticed by someone like a teacher, neighbor, or doctor
18. I felt that someone in my family hated me
19. People in my family felt close to each other
20. Someone tried to touch me in a sexual way or tried to make me touch them
21. Someone threatened to hurt me or tell lies about me unless I did something sexual with them
22. I had the best family in the world
23. Someone tried to make me do sexual things or watch sexual things
24. Someone molested me
25. I believe that I was emotionally abused
26. There was someone to take me to the doctor if I needed it
27. I believe that I was sexually abused
28. My family was a source of strength and support