

Witnessing Partner Violence in Childhood: Factors Influencing
Emotion Regulation Difficulties in College Students

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ABSTRACT

Witnessing partner violence (WPV) in childhood and adolescence can have significant impact on psychological functioning throughout development. Studies have shown that parenting factors, perceived social support, coping strategies, age at exposure, and gender can influence the relationship between WPV and outcomes. Although WPV can have serious implications towards emotion regulation abilities, empirical research on the link between WPV and emotion regulation is inadequate. The current study examined the associations between the frequency and types of WPV in childhood and adolescence and emotion dysregulation in adulthood. The study further explored the roles of parental bonds, social support, coping strategies, age at exposure, and gender as moderators in the relationship between WPV and emotion dysregulation. Data were collected using an undergraduate sample at Virginia Tech (N = 1040). Results indicated that verbal violence exposure was a significant predictor of emotion dysregulation while physical violence and total WPV were not. Parental warmth moderated the relationship between all three types of WPV and emotion dysregulation, while parental control and age of onset were moderators for total and physical WPV. Social support moderated the relationship between verbal violence exposure and emotion dysregulation. Coping strategies and gender were not found to be significant moderators. Exploratory analyses were conducted to further explore these relationships. The findings and their implications are discussed.

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1.0 Introduction

College years are the times when an individual leaves adolescence and enters into young adulthood. Often termed emerging adulthood, this phase of development encompasses several changes in life-style, paradigms, and cognitions. While many individuals who attend college learn and grow from their experiences, navigating this phase successfully, some are unable to do so. Several studies on mental health among college students have pointed out an elevated presence of psychological disorders and distress in this population. Blanco et al.'s (2008) national epidemiological study found a prevalence rate of 7% for Major Depressive Disorder, between 1.64 to 8.06% for various anxiety disorders, 17.68% for various personality disorders, and between 1.40 to 12.52% for various substance use disorders. Additionally, Frazier et al. (2009) found a prevalence rate of 6% lifetime and 8% current for Posttraumatic Stress Disorder (PTSD) among college students following various traumatic events.

The high rates and levels of psychological disorders among college students highlight the need to better understand the processes that govern the courses of these disorders and the associated risk and protective factors. The literature on the connection between childhood experiences and psychological functioning in adulthood suggests that early experiences can shape or guide the psychological sequelae throughout development and into adulthood (Lamoureux, Palmieri, Jackson, & Hobfoll, 2012; Levendosky, Bogat, Huth-Bocks, 2011). However, research in this field has mostly focused on physical and sexual abuse in childhood as a major factor in the development or sustenance of psychological disorders. While empirical evidence for the link between exposure to family violence and psychological problems in childhood is also abundant, the research on the long-term impact of such exposure is sparse. As

such, it is important to study the long term relationship between exposure to family violence and psychological functioning in adulthood.

1.1 Witnessing Partner Violence

An estimated 17% to 28% of married or cohabitating couples engage in partner violence, with the figure even higher in households with children (McDonald, Jouriles, Ramisetty-Mikler, Caetano, & Green, 2006). McDonald et al. report that approximately 15.5 million children in the U.S. live in families with ongoing intimate partner violence (IPV). An alarmingly high number of children are exposed to the partner violence perpetrated against or by their parents, with estimation of between 3 and 17.8 million children being exposed to at least one incident of partner violence each year (Evans, Davies, & DiLillo, 2008). Fantuzzo and Fusco (2007) also report that 81% of children living in families with partner violence are directly exposed to such violence. Additionally, 20-40% adults retrospectively report exposure to partner violence during childhood or adolescence (Evans et al., 2008). The numbers for college students with such experiences range from 23% (Frazier et al., 2009) to 41% for female and 32.3% for males (Silvern et al., 1995). However, variability in the type of violence witnessed has also been noted for college students, with Black, Sussman, and Unger (2010) reporting a prevalence rate of 58.3% for witnessing interparental psychological violence and of 17.5% for witnessing interparental physical violence.

Despite these high numbers, the existing research on exposure to domestic violence is inconsistent in the methodology applied to study such exposure and the related outcomes. For example, while some studies have used witnessing mother being abused as a criterion (Dehon & Weems, 2010; Levendosky et al., 2011; Russell, Springer, & Greenfield, 2010), others have included both mother to father and father to mother violence (Nicholas & Rasmussen, 2006). Disparity also exists in the type of abuse witnessed by children and adolescents. Dehon and

Weems (2010) defined domestic violence as physical assault, Russell et al. (2009) defined it as physical and emotional abuse, and Levendosky, Huth-Bocks, Semel, and Shapiro, (2002) included threats of violence, violent acts, and sexual abuse in their study. Given these discrepancies in the literature regarding the types of violence a child may witness between two adults at least one of whom is a parent, and also regarding what constitute witnessing such violence, the current study will use the term “witnessing partner violence” (WPV) from here on. The term will include seeing, hearing, being aware of, or experiencing the aftermath of ongoing verbal or physical aggression against a parent perpetrated by another parent, step-parent, or the parent’s partner.

Households with domestic violence also tend to have several other negative environmental factors, which can act as risk factors for the consequences of WPV. A number of adults who report having been exposed to partner violence in childhood also report being physically and/or sexually abused as a child (Fergusson & Horwood, 1998; Henning, Leitenberg, Coffey, Turner, & Bennett, 1996; Roustit et al., 2009). Presence of physical and/or sexual abuse can increase the risk of worse outcomes when compared to WPV alone (Henning et al., 1996; Wolfe, Crooks, Lee, McIntyre-Smith, & Jaffe, 2003). However, WPV is a significant predictor of outcomes even after controlling for the impact of physical and sexual abuse (Roustit et al., 2009; Russell et al., 2010; Silvern et al., 1996). Additionally, a significant number of children are exposed to partner violence but are not physically or sexually abused, and still develop several negative psychological outcomes (Roustit et al., 2009). Sternberg, Baradaran, Abbott, Lamb, and Gutterman (2006) note that children who are physically abused and those who witness partner violence at home are at similar risk of developing internalizing and externalizing problems. They add that children with WPV and physical abuse are significantly more likely to

have negative outcomes than each type of violence by itself. As such it is important to explore the developmental trajectories and later outcomes for children following WPV with and without physical or sexual abuse.

Studies have consistently shown that WPV is associated with several negative outcomes throughout development. Negative effects of WPV have been reported in children and adolescents in several domains of functioning including PTSD (Levendosky et al., 2002), internalizing and externalizing behaviors (Dehon & Weems, 2010; Levendosky et al., 2002; Martinez-Torteya, Bogat, von Eye, & Levendosky, 2009; Moylan et al., 2010), anti-social behaviors (Wilson, Stover, & Berkovitz, 2009), and drug use (Fagan & Wright, 2011). The long term effects of WPV beyond childhood and adolescence are also well-documented. Among adults, WPV has been found to be related to high risks for depression, child maltreatment, and alcohol dependence (Roustit et al., 2009; Russell et al., 2010). Higher levels of mental health issues, substance abuse, and criminal offending (Fergusson & Horwood, 1998) and lower levels of social adjustment (Henning et al., 1996) have also been found in adults after WPV. Among college students, WPV has been found to be associated with PTSD, depression, lower self-esteem, and trauma symptoms (Hajyahia, Tishby, & de Koysa, 2011; Nicholas & Rasmussen, 2006; Silvern et al., 1995). Furthermore, abundant research has documented the strong relationship between WPV and IPV perpetration and victimization in adulthood, including in college students (Fritz, Slep, & O'Leary, 2012; White & Humphrey, 1994).

The dose-response model of trauma suggests that higher the level of exposure to a traumatic event, the greater the negative outcomes. This dose-response relationship has also been noted in the literature regarding WPV and outcomes. However, disparity lies in what is considered a higher “dose” of WPV. For example, some studies have noted that type of violence

exposure among children is related to higher levels of maladjustment (Fantuzzo et al., 1991; Grych, Wachsmuth-Schlaefel, & Klockow, 2002; Wolfe et al., 2003). Fantuzzo and colleagues found that children exposed to verbal conflict displayed moderate level of conduct problems, while those exposed to both physical and verbal aggression displayed clinical levels of conduct problems along with moderate emotional problems. In a meta-analytic study by Kitzmann et al. (2003), it was found that exposure to physical violence was associated with more severe symptoms than was exposure to verbal aggression and conflict. Severity of the violence, as indicated by both type and frequency, experienced by the mother may also have an important role in determining outcomes in children (Huth-Bocks, Levendosky, & Semel, 2001; Levendosky, Huth-Bocks, Shapiro, & Semel, 2003).

Most empirical literature, however, has focused on frequency of exposure to violence as the main predictor of outcomes. Russell et al. (2010) found that frequency of WPV was predictive of outcomes among college students exposed to such violence in childhood. Specifically, they found that individuals who had witnessed more than ten instances of violence reported significantly higher levels of depression than did individuals who reported less than ten instances of violence. Similarly, Howell et al., (2010) found that children who had been exposed to more violent incidents, as reported by their mothers, were less resilient indicated by lower social competence and emotion regulation abilities. Hanson, Saunders, and Kistner (1992) also found that the frequency of interparental conflict during childhood, as recalled by college students, was the most salient predictor of adjustment measured by externalizing problems, depression, and relational problems. These findings suggest that factors such as type and frequency of violence have significant impact on the type and severity of outcomes.

1.2 Emotion Regulation

Emotion regulation entails the capacity to experience and differentiate the full range of emotions, respond spontaneously, and attenuate and modulate strong negative emotions (Cole et al., 1994; Gross & Munoz, 1995). Based on the existing literature on emotion regulation, Gratz and Roemer (2004) define emotion regulation as the “awareness and understanding of emotions, acceptance of emotions, ability to control impulsive behaviors and behave in accordance with desired goals when experiencing negative emotions, and ability to use situationally appropriate strategies flexibly to modulate emotional responses as desired in order to meet individual goals and situational demands”. Hence, appropriate emotion regulation in stressful situations requires the individual to understand, accept, and modulate their emotions and adapt their behaviors in response to the situation at hand, and the inability to do so hinders successful emotion regulation (Gratz & Roemer, 2004).

Emotion regulation abilities greatly depend on the age of the individual, with the sophistication in the choices and application of emotion regulation strategies increasing as the individuals get older (Holodynski & Friedlmeier, 2006). Holodynski and Friedlmeier report that during the first two years of life emotion episodes and regulation of such episodes are interpersonal, i.e. shared between the infant and the caregiver. Parental sensitivity in emotion development allows the infants to differentiate emotions and signal their motives through emotion-specific expressions that allow the caregiver to respond with appropriate actions. At this stage, infants still depend on interpersonal emotion regulation via their caregivers and are not themselves able to perform motive-serving actions. As such, parental nurturing and child-rearing activities play crucial roles in the process of emotion regulation during infancy. Children 3-6 years of age reduce the support they get from their parents in interpersonal regulation and

become more capable of both interpersonal regulation and intrapersonal emotion regulation, which involves regulation of actions independently through emotions and volitions.

School-aged children are more able to use intrapersonal regulation by using mental expressions and signs rather than physical expressions and speech signs (Holodynski & Friedlmeier, 2006). They are also able to imagine scenarios about actions and outcomes and develop emotional reactions about such scenarios. Children in this age group also learn to use silent inner speech to regulate their actions in order to manage their emotions. Adolescents, on the other hand, need to not only anticipate and regulate emotions in the here and now but also consider the consequences for satisfying motives in the future. Holodynski and Friedlmeier also add that emotional events in this stage are increasingly recognized as a part of the self and emotion regulation is adjusted finely to the specific context and partner.

Adequate emotion regulation allows an individual to function appropriately in social and professional settings and also in intimate relationships, while dysfunctional emotion regulation can result in difficulties in these areas (Gross & Munoz, 1995). Emotion regulation difficulties, i.e. emotion dysregulation, have received considerable attention as the underlying function resulting in an array of symptoms and maladaptive behaviors, including substance abuse, anxiety disorders, Attention Deficit/Hyperactivity Disorder, and conduct disorder (Gratz & Roemer, 2004; Gross, 2007; Mullin & Hinshaw, 2007). Campbell-Sills and Barlow (2007) also argue for the strong relationship between emotion dysregulation and internalizing disorders. They conceptualize clinical features of mood and anxiety disorders as maladaptive attempts at regulating undesirable emotions such as situational avoidance, social withdrawal, use of safety signals, thought suppression, worry, rumination, and rationalization. As such, it is evident that

several psychological difficulties have strong associations with emotion dysregulation that serve as the base for both externalizing and internalizing disorders throughout development.

1.3 WPV and Emotion Regulation

Empirical evidence suggests that development of emotional skills is significantly impacted by observation, modeling, and explicit instruction from the family environment and caregivers. While displays of appropriate emotions and modeling of effective coping strategies can help promote healthy emotion regulation (Denham, Zoller, & Couchoud, 1994; Zeidner et al., 2003), violence and interpersonal disturbances that lead to negative affect can hinder the child's ability to understand, process, and regulate emotions in an effective way (Greenberg, Kusche, & Speltz, 1991). The literature on child maltreatment posits that being maltreated by significant others is associated with internalization of fears, rejection, and hostility, which in turn is associated with difficulties with emotion regulation abilities (Cullerton, 2008). Empirical evidence suggests that children who are physically, sexually, and/or emotionally maltreated are more likely to have less developed emotion regulation abilities (Shipman, Schneider, & Sims, 2005) and lower emotional understanding (Shipman, Zeman, Penza, & Champion, 2000) than their non-abused peers. Furthermore, Gratz, Bornovalova, Delany-Brumsey, Nick, and Lejuez (2007) also indicate that maltreated children have greater difficulty with accepting emotions than do their non-maltreated peers.

Parental conflict, low cohesion, and expression of aggression in the family are especially associated with problems in acquiring strategies for successful emotion regulation (Gardner, Qualter, & Whiteley, 2011). In the context of WPV, children may experience fear, confusion, threat, and a host of other negative emotions. Inconsistent or sparse attention and comfort from the caregiver can lead to the idea that emotions need to be amplified and conveyed explicitly before it can be controlled or need to be suppressed or avoided so as to keep them at a

manageable level (Ainsworth, 1989). As support seeking behaviors have failed in the past, expression of emotional states to gain external support is also likely to be avoided (Ainsworth, 1989). Howell and Graham-Bermann (2011) posit that children exposed to partner violence may experience arousal that does not habituate or reduce in intensity and may not be able to respond to the stressor adaptively. Based on Jenkins' (2000) and Jenkins and Oatley's (1997) research Fosco, Deboard, and Grych (2007) also add that exposure to high levels of violence and aggression are associated with the development of emotion organization based on anger so that any negative stimuli, even those not typically eliciting anger, is responded to with anger as the default emotion. Furthermore, Fosco et al. add that children who grow up in the context of WPV are also more emotionally reactive, such that they are sensitized to conflict and are quicker to react to potential threat so as to cope with the possible stress quickly.

Although effective in the short term, negative emotional reactivity are related to psychological maladjustment due to difficulties in regulating the vigilance and distress (Davies & Cummings, 1998). Dysregulation of emotional and physiological arousal can manifest themselves in the form of traumatic stress symptoms, internalizing and externalizing problems, and cognitive impairments (Howell & Graham-Bermann, 2011). Children exposed to partner violence may also have difficulties with emotion regulation as indicated by deficient empathy, low accuracy in attending to emotional cue in social interactions, inadequate or inappropriate expression of emotions, and high aggression when compared to children not exposed to partner violence (Graham-Bermann & Levendosky, 1997; Margolin, 2005).

A limited number of empirical studies have also found emotion regulation to be an important variable in the relationship between WPV and outcomes. For example, Davies and Cummings (1998) found that emotional reactivity partially mediated the relationship between

marital discord among parents and internalizing and externalizing problems in the children. Emotion regulation abilities, which play a significant role in resilience, were also found to predict lower rates of externalizing and internalizing problems in children exposed to partner violence, suggesting that children who have good emotion regulation abilities are less vulnerable to negative outcomes following WPV (Howell, Graham-Bermann, Czyz, & Lilly, 2010). These studies indicate that emotion dysregulation is an important outcome following WPV that are related to further psychological disturbances, and thus need to be understood and corrected.

As mentioned previously, the frequency of WPV is associated with differential outcomes in children and adolescents (Howell et al., 2010; Russell et al., 2010). Since WPV has been linked to emotion dysregulation (Fosco et al., 2007; Howell & Graham-Bermann, 2011), it is likely that frequency of WPV can also have differential impact on emotion regulation abilities. As such, the current study examined the role of the frequency of WPV in childhood in long-term emotion dysregulation. Since the type of violence witnessed has also been linked to differential outcomes (Kitzmann et al., 2003) the current study examined the relationship separately for verbal violence and for physical violence.

1.4 Age at WPV and Emotion Dysregulation

Graham-Bermann and Levendosky (2011), with a developmental perspective, suggest that the age at exposure to interparental violence, along with associated risk and protective factors, can impact physiological, behavioral, and/or emotional outcomes. Bogat, Levendosky, von Eye, and Davidson (2011) posit that WPV can have significant impact on development via infant attachment and maternal representations as early as in utero. Ongoing intimate partner violence may influence the mother's internal representations of self, the child, and others, thus influencing the attachment system she develops with the child during pregnancy and infancy (Bogat et al., 2011; Cohen & Slade, 2000). The attachment relationship between the mother and

the child may be further influenced by IPV during infancy by impairing the new mother's ability to sensitively parent the infant and decreasing their sense of well-being and safety (Herman, 1992; Margolin, 1998).

IPV can also impact emotional development in pre-school aged children who may witness the on-going violence (Howell & Graham-Bermann, 2011). Pre-school age children spend most of their time at home with their parents, and are thus likely to witness or be aware of the violence between the parents and their partners. Furthermore, they are also unable to escape the on-going violence by leaving the premises and seeking out refuge at a friend's or extended family's place. In the context of WPV young children have to stay and endure the violence or resort to hiding, purposefully dissociating, or emotional numbing (Howell & Graham-Bermann, 2011). Levendosky, Huth-Bocks, Semel, and Shapiro (2002) also add that attachment representations hold high significance during these years, and the disruption to attachment caused by WPV can have significant negative impact. WPV can have more deleterious effect during early years of childhood as emotion regulation is being learned the most during these years (Levendosky et al., 2002). Indeed, empirical studies have also found WPV to have severe and long-lasting impact on emotional and behavioral functioning in preschool aged children (Graham-Bermann, DeVoe, Mattis, Lynch, & Thomas, 2006; Huth-Bocks, Levendosky, & Semel, 2001; McDonald, Jouriles, Briggs-Gowan, Rosenfield, & Carter, 2007; Paterson, Carter, Gao, Cowley-Malcolm, & Iusitini, 2008).

The association between WPV and adjustment problems in school-age children has been well-documented in the literature. Meta-analyses by Kitzmann et al. (2003) and Wolfe et al. (2003) found significant relationship between WPV and adjustment among school-age children, with the effects sizes for those with WPV significantly higher than for those without WPV.

Sternberg et al. (2006) conducted a mega-analysis by aggregating raw data from 15 published studies on WPV and adjustment in school-aged children and found that children with WPV were 2.4 times more likely to exhibit externalizing problems and 2.03 times more likely to exhibit internalizing problems when compared to non-witnesses. Social learning theory suggests that modeling, beliefs about aggression in relationships, and acceptance of violence as possible mechanisms linking WPV to externalizing problems in this age group (DeBoard-Lucas & Grych, 2011). Cognitive-contextual framework (Grych & Finchman, 1990) on the other hand proposes children's appraisal, meaning making, and immediate response to WPV as the mechanism.

Although the impact of WPV on young and school-age children have been empirically studied and discussed in the literature, comparable information regarding such relationship in adolescents seems to be sparse (McCloskey, 2011). Despite this short-coming in the literature, the potential impact of WPV on development and adjustment in adolescents have been noted and discussed to some extent. Cunningham & Baker (2011) posit that adolescents in the context of WPV may have to assume caretaking role or assume premature independence, may feel shame or insecurity about family, may try to cope by engaging in risky behaviors, staying away from home, using maladaptive coping strategies such as drugs and aggression, have distorted self-image, and have difficulties with peer and intimate relationships. Black, Sussman, and Unger (2010) also report that WPV in emerging adulthood can have significant impact on functioning. They add that this developmental stage may be of special importance as parents may be more willing to share their experiences of IPV with such emerging adults, while the emerging adults may themselves be better able to notice subtle forms of IPV in the household.

Based on the existing information on the impact of WPV on different age groups, it can be seen that WPV can have different impact on functioning depending on the children's

developmental level, with broader range and severity of outcomes reported in early childhood compared to late childhood and adolescence. Coupled with the literature on emotion regulation which suggests that disruption to emotion regulation development earlier on life can have worse outcomes (Holodynski & Friedlmeier, 2006), it is highly plausible that WPV earlier in life causes more difficulties with emotion regulation than does WPV later on in life; i.e., the impact of WPV on emotion regulation decreases as the age at exposure increases. To this effect, Fosco et al. (2007) and Kitzmann et al. (2003) also note that younger children are at greater risk for negative outcomes because of less developed coping strategies and lower understanding of conflict. Indeed, Osofsky (1995) reports that the earlier the exposure to violence in children, the worse the outcomes. Wolfe et al. (2003) also note that the relationship between WPV and adjustment in children and adolescents is moderated by developmental stage. Specifically, they found that the effect sizes for preschoolers and school aged children is greater than that for adolescents, suggesting that younger children are more susceptible to difficulties in adjustment than are adolescents. Hence, although sufficient research regarding the age at WPV and outcomes in adulthood is lacking, the existing literature provides strong hints towards the negative relationship between these two factors. As such, the current study explored the moderating role of age at WPV in the relationship between frequency of exposure and emotion dysregulation.

1.5 Parenting Factors in WPV and Outcomes

As WPV can be emotionally distressing, parental reactions following such exposure can highly impact emotion regulation abilities. When parents are responsive and help their children understand their emotions, they promote appropriate ways of managing emotions and regulating distress (Denham et al., 1994). The children are then able to develop greater efficacy in coping strategies which, when applied in the context of further WPV, decrease their threat perception and distress. Sensitive parents may also use emotion coaching by validating, labeling, and

helping their children deal with their emotional reactions (Katz & Gottman, 1997). However, when the parents are dismissive or punitive when their children display negative emotions in the context of WPV, those children may learn to think of such emotions as bad and unacceptable. These children then may not learn to effectively cope with such emotions, and may instead suppress such emotions (Gottman, Katz, & Hooven, 1996; Katz & Gottman, 1997; Ziedner et al. 2003). Levendosky et al. (2003) report that mothers who are mentally healthy following abuse are able to parent better, and thus have children who function well despite being exposed to the violence. However, they also add that mothers who were depressed or had trauma symptoms has poorer parenting skills, and that their children had worse outcomes.

A host of empirical studies have found parenting factors to have significant impact on the relationship between interparental conflict and outcomes in childhood and adulthood. Katz and Low (2004) found that the relationship between marital violence and anxiety and depression in young children was mediated by hostile-withdrawn co-parenting. Sturge-Apple, Davies, Cicchetti, and Manning (2010) also found that maternal warmth, support, sensitivity, awareness, and disengagement (i.e., ignoring, choosing not to participate in activities with the child, and being apathetic about the child's needs) mediated the relationship between interparental violence and toddlers' internalizing and externalizing symptoms. Rea and Rossman (2005) also found that battered women's use of verbal hostility and permissiveness exacerbated their school-aged children's internalizing and externalizing problems while their authoritative parenting predicted better child adjustment. Johnson and Lieberman (2007) and Lieberman, Van Horn, and Ozer (2005) also report that the quality of the relationship between mother and child, as indicated by reciprocity and partnership during interactions, impacts the child's psychological functioning following WPV. Owen, Thompson, Shaffer, Jackson, and Kaslow (2009) found that children's

reports of family cohesion and relatedness mediated the relationship between WPV and adjustment.

Henning et al. (1996) and Nicholas and Rasmussen (2006) also found supportiveness of the family to be important predictor of outcome among adults who had been exposed to partner violence in childhood. Shen (2009) reports that quality of relationship with parents mediates the relationship between dual violence during childhood (WPV and physical abuse) and self-esteem in adulthood. Fergusson, Boden, and Horwood (2006) report that the relationship between WPV and violence in adulthood (IPV perpetration and victimization and violent crimes) is significantly influenced by parental care and overprotection, as measured by the Parental Bonding Instrument (Parker, Tupling, & Brown, 1979). A recent study by Gamez-Guadix, Almendros, Carrobbles, and Munoz-Rivas (2012) with college students also found that WPV in childhood as reported retrospectively was related to difficulties with psychosocial adjustment in adulthood, and that this relationship was mediated by parenting practices. Specifically, Gamez-Guadix et al. found that harsh discipline and warmth/affection mediated the relationship between exposure to interparental violence and antisocial behaviors and depressive symptoms.

Most of the studies assessing children's functioning following WPV have looked at mother-child relationships, with very few studies done on the children's relationship with the father. Fosco et al. (2007), however, posits that father's parenting and involvement can influence the impact of WPV in children. To this effect, Stover, Van horn, Turner, Cooper, and Lieberman (2003) found that children who had weekly visits with their fathers following divorce or separation had less internalizing symptoms regardless of the severity of the violence witnessed, while those who witnessed severe violence had more externalizing symptoms regardless of visitations from the fathers. Additionally, Fergusson et al. (2006) also report paternal

overprotection to be an important factor in the relationship between WPV and violent crime perpetration in adulthood.

Based on these studies, it is evident that parenting practices of both mother and father can have a significant impact on functioning following partner violence. As discussed above, parental factors also have important implications for emotion regulation abilities in children. Although most of the studies discussed thus far report parenting as a mediator, these studies use cross-sectional data, which weakens the causality implied by the mediation model. Furthermore, parental warmth and control may have different impact on emotion regulation difficulties following WPV than on other outcomes. As such, the current study examined the moderating role of parenting, specifically perceived warmth and control from both parents, in the relationship between WPV frequency and emotion dysregulation.

1.6 WPV and Social Support

Literature on the impact of social support on functioning following a negative life experience abundantly states that perceived support from family, friends, and other significant individuals can be a strong protective factor against negative outcomes (Muller, Gragtmans, Baker, 2008). Social support has been found to be an important predictor of outcomes following maltreatment in children and adult survivors of maltreatment, with studies finding lower levels of depression, aggression, and posttraumatic symptoms in individuals who report higher levels of social support (Muller, Goebel-Fabbri, Diamond, & Dinklage, 2000; Runtz & Schallow, 1997). However, it should also be noted that children and adults who report higher levels of childhood abuse also report lower perceived social support (Pepin & Banyard, 2006), compromised quality of support (McCarthy & Taylor, 1999), lesser use of available social support (Mullen, Martin, Anderson, Romans, & Herbison, 1996). Despite the rich literature on the impact of social support in the relationship between maltreatment and outcomes, studies on the impact of social

support in adjustment difficulties following WPV (Gonzales, Chronister, Linville, & Knoble, 2012; Owen et al, 2008) are sparse and this field needs attention.

Owen et al. (2008) conducted a study with low-income African American families and found that perceived social support from parents, teachers, and peers mediated the relationship between WPV and adjustment problems in children. Specifically, they found that perceived social support explained the link between WPV and internalizing and externalizing behaviors in the children. Gonzales et al. (2012) studied resilience in non-violent adult men who had been exposed to interparental violence in their childhood. In their qualitative analysis, Gonzalez and colleagues found that men who reported safe relationship with a caring adult (a parent or an extended family member) demonstrated higher levels of resilience, attributing their functioning to the availability of the person to help lessen the emotional distress caused by the exposure. Grych and Fincham (1997) also report that grandparents, aunts, and uncles can facilitate healthy adaptation in children in the context of interparental conflict by attending to their basic needs, taking over recreational and educational activities, and correcting distorted beliefs about the conflict.

Strong relationship with adults outside of the home has also been known to act as a protective factor against negative outcomes following WPV. Margolin and Gordis (2000) posit that children who have outside support in the form of a supportive adult or peers fare better following exposure to family violence than do children who do not report such support. Grych and Fincham (1997) also note that neighbors and teachers who are involved with the child can help them in direct ways. They may provide support by helping the children understand the conflict, correcting misconceptions, and providing emotional support.

Cummings and Davies (2010) note that research regarding WPV and peer relationships has focused on poor peer relations as a result of WPV, but has not adequately explored peer support as a moderator in the relationship between WPV and outcomes. For example, Owen et al. (2008) found that children from violent homes have lower quality of peer relationship, which Owen and colleagues attribute to lower frequency of school attendance, lack of available opportunity or conducive environment to bring friends home, and exhibition more physical and verbal aggression towards peers (Dodge, 1983; Graham-Bermann, 1998; Moore et al., 1990). However, a few studies have indeed found peer support to be protective against deleterious effects of marital conflict (Rogers & Holmbeck, 1997; Wasserstein & La Greca, 1996). Shen (2009) also found quality of peer relationship to be a mediator in the relationship between WPV and physical abuse in childhood and self-esteem in emerging adulthood.

Given these documented impact of perceived social support on adjustment following negative life experiences and the limited literature on the influence supportive adults and peers can have in the context of WPV, it is imperative that this relationship be explored further. The current study explored the impact of perceived social support from family members other than parents such as grandparents, uncles/aunts, and siblings, adults outside the home such as teachers, neighbors, and friends' parents, and peers in the relationship between WPV frequency and emotion dysregulation.

1.7 Coping with WPV

Coping strategies are the efforts made in response to a stressor that are aimed at reducing the anxiety and interferences with one's functioning brought on by the stressors (Burt & Katz, 1988). Davies and Cummings (1994) posit that when their sense of security is threatened by interparental conflict, children may respond with different types of coping strategies in order to reestablish the sense of security. Children may feel sad, angry, or scared along with a host of

other emotions in the context of WPV, which may lead them to intervene with the goal of stopping the violence or may withdraw with the idea that the violence is unlikely to end or that they are incapable of stopping it (DeBoard-Lucas & Grych, 2011; Overlien & Hyden, 2009). Likewise Cunningham and Baker (2011) also note that adolescents may use mental and behavioral engagement and disengagement coping strategies to deal with the distress they experience in the context of WPV, and while such strategies are helpful in the moment, they are adaptive or maladaptive in the long run.

Adaptive coping can help the children by providing external sources of support and helping them gain control of their environment (Cunningham & Baker, 2004). Adaptive coping strategies that children and adolescents may in the context of WPV use include physically separating self from the violence, physically trying to separate the parents during violence, assuming protective and caretaking role towards siblings and victimized parent, talking to teachers, neighbors, friends, or other supportive adults, calling the police, and redirecting emotions into positive activities (Cunningham & Baker, 2011; Kerig, 2001).

Children and adolescents may use maladaptive coping strategies in the context of WPV because they help them by providing an immediate mental avoidance route or diverting attention to other aspects of life (Cunningham & Baker, 2007). Empirical research has found that children's use of disengagement coping such as closing one's ears, listening to music to drown out the violence, staying physically away from the violence, and using alcohol or other drugs for mood alteration so as to distance themselves from the violence and thus reducing their arousal level are maladaptive and often result in negative outcomes (Cunningham & Baker, 2004; Mullender et al., 2002; Overlien & Hyden, 2009). Adolescents may also use maladaptive coping strategies such as blocking thoughts, numbing emotions, tuning out the noise, being oblivious,

fantasizing about happier life without the abuser, hoping for a rescuer, self-injury, suicidal ideations, aggressive behaviors and getting into fights, and drinking alcohol or doing drugs (Cunningham & Baker, 2011). Lepisto et al. (2010) found that among adolescents, exposure to interparental violence was associated with non-productive coping styles such as self-blame, ignoring the problem, worrying, tension reduction, and not coping. To the same effect, Popescu et al. (2010) found childhood exposure to domestic violence to be associated with negative coping such as drug and alcohol use, violent response, and suicidal ideation and attempt as reported in adulthood.

In their qualitative study with adult men, Gonzales et al. (2012) found that resilience in adulthood following WPV in childhood was attributed to adaptive coping strategies. Runtz and Schallow (1997) also found that expressing emotions and actively seeking change and understanding was associated with positive outcomes while self-destructive and avoidant behaviors were associated with negative outcomes in adult survivors of childhood maltreatment. Likewise adaptive engagement coping in the context of familial conflict has been found to act as a protective factor against short-term and long-term internalizing problems, whereas maladaptive disengagement coping such as avoidance and denial has been noted to exacerbate internalizing symptoms in children and adolescents (Nicolotti, El-Sheikh, & Whitson, 2003; Santiago & Wadsworth, 2009). Overlien and Hyden (2009) note that passive avoidance strategies is related to higher levels of psychological problems as compared to problem-focused adaptive coping.

These findings strongly suggest that coping strategies utilized following exposure to partner violence can play a significant role in psychological functioning in children and adolescents. Especially given the important relationship between coping and emotion regulation noted in the literature (John & Gross, 2007), it is imperative that this relationship be explored

and the impact of specific coping styles on certain emotion regulation difficulties be studied further. To this effect, the current study examined the moderating roles of adaptive coping and maladaptive coping on the relationship between WPV frequency in childhood and long term emotion dysregulation.

1.8 Gender Differences in WPV Outcomes

The literature on gender differences in outcomes following exposure to partner violence is inconsistent in its findings, and very much dependent on the type of violence, type of outcomes measured, and age at the assessment (McCloskey, 2011). Most studies that have explored gender differences have focused on either aggression or dating violence. For example, Herrera and McCloskey (2001) report that girls from violent households are more likely to be arrested for partner violence in their own relationship and show anti-social behavior than are boys. However, Lichter and McCloskey (2004) report that boys from violent households are more likely to perpetrate dating violence than are girls.

Differential outcomes have also been observed in males and females in adulthood following WPV in childhood (Nicholas & Rasmussen, 2006; Roustit et al., 2009; Silvern et al., 1996). Roustit et al. (2009) found that risk of depression was higher for women while risk of violence against their children and alcohol dependence was higher for men, while Nicholas and Rasmussen (2006) observed higher scores on aggression for men when compared to women. Silvern et al. (1995) found women exposed to partner violence in childhood to have more depression and anxiety symptoms than men from similar backgrounds.

Hanson et al. (1992) found significant gender differences in adjustment among college students exposed to interparental conflict in childhood. Specifically, they found that interparental conflict predicted depression, externalizing problems, and relational difficulties for females, but not for males. To explain their findings, Hanson and colleagues posit that women may assume

the role of helpless victim in their own relationship conflicts and stressful situations, thus leading to adjustment difficulties, having learned such response from watching their mothers be victimized. They also posit that the impact of WPV may be delayed in females, such that females may exhibit difficulties as they get older, while males may exhibit difficulties at younger age immediately, or soon after, such exposure. Shen (2009), however, found that among colleges students exposed to interparental conflict and physical abuse in childhood, dual exposure was related to self-esteem for males but not for females, suggesting that males may be more vulnerable to negative outcomes when both WPV and physical maltreatment are present than are females. Shen did not find gender differences in self-esteem when only WPV and only physical maltreatment were examined as predictors.

However, other studies have not found gender differences in the impact of WPV. For example, Ferguson and Horwood (1998) report that they did not find any differences in the outcome measures following interparental violence for males and females. In their meta-analysis, Kitzmann, Gaylord, Holt, and Kenny (2003) did not find gender to be a significant moderator of the effect sizes in the relationship between WPV and outcomes. Fergusson, Boden, and Horwood (2006) also did not find significant interaction between gender and WPV in the prediction of IPV perpetration and victimization, suggesting that the impact WPV can have on IPV and aggression are similar for males and females. Howell et al. (2010) also did not find gender differences in resilience, as defined by emotion regulation and social competence, following WPV in preschoolers. Gamez-Guadix et al. (2012) assessed psychosocial adjustment in college student who had been exposed to partner violence in their childhood and found that gender did not moderate the relationship between exposure and outcomes.

Although gender differences in the impact of WPV on emotion dysregulation have not been studied adequately, childhood maltreatment literature provides some information regarding this topic. Gratz et al. (2009) found that childhood physical and sexual abuse significantly predicts emotion dysregulation for both males and females, but that emotion dysregulation is a significant mediator of the relationship between maltreatment and IPV in adulthood for males, but not for females. The general literature on emotion regulation also sheds some light on gender differences. Males may be more vulnerable to emotion regulation difficulties following negative life events because gender socialization of emotional expressivity encourages males to deliberately inhibit emotional expression, especially with regards to sadness and fear (Eisenberg, Cumberland, & Spinard, 1998; Gross & John, 1998; Jakupcak, Salters, Gratz, & Roemer, 2003; Kuebli & Fuvush, 1992; Mennin et al., 2005). Despite these literatures, enough empirical evidence to suggest that one gender may be more vulnerable to emotion dysregulation following WPV than the other is lacking. The current study explored gender as a moderator in the relationship between WPV and emotion dysregulation to provide empirical data and further develop the literature on gender differences in exposure to family violence and outcomes.

1.9 Research Objectives

The existing literature on the impact of WPV in children and adults and emotion dysregulation suggests that WPV frequency can significantly impact emotion regulation abilities. Furthermore, this relationship between WPV and emotion dysregulation is likely impacted by parenting, perceived social support, coping strategies used in the context of WPV, age at exposure, and gender. The literature reviewed thus far regarding WPV, emotion regulation, and these related constructs posited the following hypotheses to guide the current study:

1. WPV in childhood is associated with emotion dysregulation in adulthood.
 - a. Higher frequency of WPV predicts higher level of emotion dysregulation

- b. The relationship between frequency and emotion dysregulation is stronger for exposure to physical violence than for exposure to verbal violence
- 2. The association between WPV and emotion dysregulation is moderated by parental warmth and control
 - a. Higher parental warmth decreases the association between WPV and emotion dysregulation
 - b. Higher parental control exacerbates the association between WPV and emotion dysregulation
- 3. Perceived social support moderates the relationship between WPV and emotion dysregulation. Specifically, higher level of perceived social support is associated with weaker link between WPV and emotion dysregulation
- 4. Coping moderates the association between WPV and emotion dysregulation
 - a. The relationship between WPV and emotion dysregulation is stronger as level of maladaptive coping increases
 - b. The relationship between WPV and emotion dysregulation is weaker as adaptive coping increases
- 5. Age at exposure also moderates the relationship between WPV and emotion dysregulation such that the association is weaker as the age at exposure increases

Gender was also examined as a moderator in the relationship between WPV and emotion dysregulation. However, given the discrepancies and lack of consensus on gender differences in outcomes following WPV, the current study conducted exploratory analyses in lieu of a specific hypothesis.

2.0 Method

2.1 Procedure

The sample for this study was undergraduate students from Virginia Tech. Students were recruited using the SONA system through the Psychology Department. 1276 students completed the survey. 1040 students (81.5%) reported at least one incidence of WPV and were included in the study.

2.2 Measures

Demographic Information. Individual's age, gender, year in college, ethnicity, and socio-economic status (SES) information were obtained via self-report. Parental education level for each parent was asked ranging from 1 to 4 (high school diploma-GED or less; some college or associate's degree; 4-year degree; post-graduate degree). Respondents also indicated their housing during their childhood (apartment, duplex/townhouse, mobile home, single-family home). For an SES composite, z-score was created using both parents' education levels and the housing score. Such method of calculating SES has been used in other studies looking at parental factors and child outcomes (see Deater-Deckard, Wang, Chen, & Bell, 2012).

Revised Conflict Tactics Scale- Adult Recall Version (CTS2-CA; Straus, 1999) is a modified version of the Revised Conflict Tactics Scale (Strauss et al., 1996) that is designed to assess for exposure to father-to-mother and mother-to-father violence during childhood as recalled by adults. Each participant was asked to indicate how often each of their parents or parent's partner perpetrated each of 20 behaviors (eight psychological aggression and 12 physical violence items) towards the other parent or partner before the participant was 18 years of age, on a scale of 1 to 7 (never to >20 times). The responses to the 40 items were summed to obtain a total WPV frequency score. The higher the total WPV score, the greater the frequency of exposure to violence perpetrated by and against the father and the mother. Separate frequency

scores were also obtained for verbal violence and physical violence subscales. The CTS2-CA has been found to have good construct validity (Levine, 2003) and internal consistency with Cronbach's alphas between .90 and .93 when used with adults (Milletich, Kelley, Doane, & Pearson, 2010). Similar modified versions of the CTS and CTS2 have been utilized in studies involving the recall of interparental violence in adulthood (e.g., Taft, Schumm, Marshall, Panuzio, & Holtzworth-Munroe, 2008). Taft et al. noted internal consistency reliability of .89 for this version of the CTS2 in their study. The CTS2-CA was found to have good internal consistency in the current data, with Cronbach's alphas of .942, .915, and .954 for total WPV, verbal violence, and physical violence scales respectively.

Age at exposure. Respondents were asked about their age at first exposure using a single item "How old were you when you first witnessed verbal or physical violence between your parents or a parent and his/her partner?" Additionally, respondents were also asked about the age at last exposure with a single item "How old were you when you were last witnessed verbal or physical violence between your parents or a parent and his/her partner?"

Stressful Life Events Screening Questionnaire, Revised (SLESQ; Goodman, Corocran, Turner, Yuan, & Green, 1998) is a measure regarding trauma history. The SLESQ is a 13-item self-report measure that assesses lifetime exposure to traumatic events. It is comprised of eleven specific and two general categories of events, such as life threatening accident, and physical and sexual abuse. Respondents are asked to indicate whether or not the event occurred ("yes" or "no"), their age at the time of the event, as well as the frequency, duration, and other specific events. Goodman et al. (1998) report that the SLESQ has adequate test-retest reliability ($k = .73$) and convergent validity (.64). The SLESQ was found to have a Cronbach's alpha of .642 in the current study.

Childhood Trauma Questionnaire-Short Form (CTQ-SF; Bernstein et al., 2003) is a validated self-report measure that consists of five subscales measuring different types of maltreatment during childhood and adolescence: emotional abuse, physical abuse, sexual abuse, emotional neglect, and physical neglect. Each subscale has five items, each scored on a 5-point scale (1 = “never true” to 5 = “very often true”). The measure also includes three validity questions, bringing the total number of items to 28. The CTQ-SF has good internal consistency ranging from .68 to .92 for the subscales (Majer, Nater, Lin, Capuron, & Reeves, 2010). The CTQ-SF also has excellent test-retest reliability ranging from .66 to .94 (Bernstein et al., 2003). Support for its construct validity and five-factor structure have also been documented in both clinical and community samples (Bernstein et al., 2003). A total CTQ-SF score was used in the current study by adding the scores from the 25 items. The CTQ-SF total score was found to have good internal consistency in the current study with a Cronbach’s alpha of .901.

Brief COPE (Carver, 1997) is a 28-item self-report measure that is commonly used for identifying coping strategies used by individuals when faced with a stressor. Brief COPE is derived from the COPE Inventory (Carver et al., 1979), and shows similar factor structure with the original version. It identifies 14 coping strategies, each with two items that are answered in the range of 1 (not at all) to 4 (a lot). For the purpose of the study, two commonly used subscales of the Brief-COPE were used: adaptive coping and maladaptive coping (Belizaire & Fuertes, 2011). Eight strategies were combined to form the adaptive coping subscale and the other six were combined to form the maladaptive coping subscale. The measure, when divided into these two subscales, yields good internal consistency, with Cronbach’s alphas between .81 and .89 (Belizaire & Fuertes, 2011). The current data yielded even better internal consistency, with alphas of .909 and .848 for the adaptive and the maladaptive scales respectively.

The Multidimensional Scale of Perceived Social Support (MSPSS, Zimet, Dahlem, Zimet, & Farley, 1988) is a 12-item self-report measure that assesses for the perception of support from family, friends, and a significant other. Each item is rated in a Likert-type scale of 1 to 7 (very strongly disagree to very strongly agree). The MSPSS has been found to have good overall reliability (.88) and has also been shown to be valid across various populations including college students (Zimet et al., 1988). For the purpose of the current study, MSPSS's format was used but the sources were family member other than parents, friends, and an adult outside of the family (teacher, pastor, neighbor, parent of a friend, etc.). The total MSPSS score yielded a Cronbachs alpha of .935, indicating good internal consistency in the current data.

Parental Bonding Instrument (PBI; Parker et al., 1979) is a widely used 25-item self-report measure that assess for subjective experiences of being parented during the first 16 years of life. The 25 items include 12 items regarding 'care/warmth' scale and 13 items regarding 'control' scale. These items are rated separately for mothers and fathers, yielding two scales for each parent. The 'care/warmth' scale measures parental warmth, acceptance, and empathy, and the 'control' scale measures parental overprotection and intrusion. Each item is rated on a four-point scale (0 = very unlike, 3 = very like). The PBI has been shown to have good test-retest reliability, with coefficients for the care and overprotection scales .76 and .62 respectively (Wilhelm, Niven, Parker, & Hadzi-Pavlovic, 2005) and construct validity with actual parental behaviors (Wilhelm & Parker, 1990). The measure also has good internal consistency among college students, with Cronbach's alpha ranging from .73 to .89 (Sira & White, 2010). The alphas in the current study were found to be .941 for the warmth subscale and .893 for the control subscale.

Difficulties in Emotion Regulation Scale (DERS; Gratz & Roemer, 2004) is a self-report questionnaire that includes six clinically relevant domains of difficulties with emotion regulation. The domains are: nonacceptance (not accepting emotional responses), awareness (lack of emotional awareness), strategies (limited access to emotion regulation strategies), goals (difficulties engaging in goal-directed behavior when emotionally aroused), impulse (difficulties with impulse control), and clarity (lack of emotional clarity). The DERS has been empirically supported for its validity and reliability with various samples (Fox et al., 2007; Tull & Roemer, 2007). It consists of 36 items scored on a 1-5 scale (almost never to almost always). Greater emotion regulation difficulties are indicated by higher scores. The DERS displays good internal consistency ($\alpha = .93$), test-retest reliability across 4-8 weeks ($p < .01$), and construct and predictive validity (Gratz & Roemer, 2004). Studies have also shown good subscale alphas ranging from .85 to .95 (Bender, Reinholdt-Dunne, Esbjorn, & Pons, 2012). The DERS total score had good internal consistency in the current data, with a Cronbach's alpha of .939.

3.0 Results

3.1 Measure Descriptions

A summary of all demographic variables is presented in Table 1. Means, standard deviations, ranges, and internal consistency coefficients of each of the measures and their subscales used are presented in Table 2. Each measure and subscale was found to have acceptable internal consistency, as reported above.

Additionally, the frequencies of the types of violence perpetrators against mother and father are presented in Table 3. Frequencies of reports of each item of the WPV scale for mother's victimization and father's victimization are listed in Table 4.

3.2 Relationship among Variables

Correlations were calculated among the scores of current age, gender, SES, WPV types, lifetime and childhood traumas, parental warmth and control, social support, adaptive coping, maladaptive coping, age of onset, and emotion dysregulation. Details of the correlations are presented in Table 5.

3.3 Power Analysis

G*Power software (Faul, Erdfelder, Buchner, & Lang, 2009) for power analysis was used to estimate the power achieved with the current $N = 1040$ to observe a small effect size of .02 at $\alpha = .05$ in a multiple regression model taking into consideration the estimates of likelihood of WPV, the likelihood of emotion dysregulation, as well as covariates. The analysis found that the analyses had adequate power = .987.

3.4 Prediction of Emotion Dysregulation

Hierarchical regression analyses were conducted to explore total WPV, total verbal violence exposure, and total physical violence exposure as potential predictors of emotion dysregulation. Due to the non-normality of the data, the predictor variables (total WPV, total physical violence, and total verbal violence) were log transformed. The normality of the distribution of the outcome variable (i.e. total DERS score) was also examined and found to be acceptable. Sufficiency in normality, homoscedasticity, and linearity for the use of OLS regressions was determined by examining the distribution of the residuals and by plotting residuals against predicted values. All control variables and proposed moderators were centered to eliminate problematic multicollinearity effects between first order terms and the higher order term (Holmbeck, 1997). In each of the model, current age, SES, lifetime trauma, and childhood trauma were entered first to control for their effects. The WPV type (total, physical, or verbal) was entered in the second step.

The first regression analysis tested the relationship between total WPV and emotion dysregulation. The model suggested that total WPV was not a significant predictor of emotion dysregulation ($\beta = .063$, $p = .063$). In the final model, current age was a significant predictor of emotion dysregulation ($\beta = -.061$, $p = .037$), as was total childhood trauma ($\beta = .366$, $p < .000$). Total WPV and the covariates collectively accounted for 15.9% of the variance in emotion dysregulation (see Table 6).

The second regression analysis tested the relationship between physical violence exposure and emotion dysregulation. The model suggested that physical violence exposure is a significant predictor of emotion dysregulation ($\beta = -.068$, $p = .043$). In the final model, current age was a significant predictor of emotion dysregulation ($\beta = -.063$, $p = .032$). Total childhood trauma was also a significant predictor of emotion regulation difficulties ($\beta = .429$, $p < .000$). The full model accounted for 15.9% of the variance in emotion dysregulation (see Table 7).

The relationship between verbal violence exposure and emotion dysregulation was tested next. The final model suggested that verbal violence exposure is a significant predictor of emotion dysregulation ($\beta = .100$, $p = .002$). In the model, the covariates current age ($\beta = -.061$, $p = .037$) and childhood trauma ($\beta = .357$, $p < .000$) were also significant predictors of emotion dysregulation. The final model accounted for 16.4% of the total variance in emotion dysregulation (see Table 8).

3.5 Moderator Model Tests

Parental warmth and control, social support, adaptive and maladaptive coping, age of onset, and gender were then tested as moderators in the relationship between the different types of WPV and emotion dysregulation using hierarchical regression analyses. Each of the analyses included four steps. In the first step current age, SES, lifetime trauma, and childhood trauma were entered to control for their effects. In the second step, WPV type was entered. The

proposed moderator was entered in step three. The last step consisted of entering the interaction variable (e.g. Total WPV X Age at onset). A moderation effect was found to be present if the interaction term significantly predicted emotion dysregulation when the main effects had been included in the model (Aiken & West, 1991). Post-hoc analyses were conducted probing each significant interaction. Cohen, Cohen, West, and Aiken (2003) suggest examination of simple slopes at three levels of the moderating variables when probing interactions in simple OLS regression models. Specifically, values are tested at one standard deviation above the mean of the moderating variable, at the mean, and at one standard deviation below the mean.

First total parental warmth was explored as a moderator in the relationship between total WPV and emotion dysregulation (see Table 9). In this hierarchical regression model, total WPV did not significantly predict emotion dysregulation ($\beta = .052, p = .123$). Total parental warmth predicted emotion dysregulation ($\beta = -1.373, p < .000$). In the model, current age was a significant predictor of emotion dysregulation ($\beta = -.066, p = .020$), as was total childhood trauma ($\beta = .196, p < .000$). The interaction term of total WPV X total parental warmth was also significant, suggesting that parental warmth is a moderator in the relationship between total WPV and emotion dysregulation ($\beta = 1.107, p = .001$). The full model accounted for 21% of the variance in emotion dysregulation. Post-hoc probing of the interaction (see Figure 1) revealed that the slope was significant for high parental warmth ($t = 3.019, p = .003$) but not for low parental warmth ($t = -.915, p = .361$).

Total parental warmth was then explored as a moderator in the relationship between physical violence exposure and emotion dysregulation (see Table 10). In this model, physical violence did not predict emotion dysregulation ($\beta = .016, p = .687$). Total parental warmth predicted emotion dysregulation ($\beta = -1.470, p < .000$). In the model, current age was a

significant predictor of emotion dysregulation ($\beta = -.069$, $p = .016$), as was total childhood trauma ($\beta = .232$, $p < .000$). The interaction term of physical violence X total parental warmth was also significant, suggesting that parental warmth is a moderator in the relationship between physical violence exposure and emotion dysregulation ($\beta = 1.217$, $p < .000$). The full model accounted for 21.4% of the variance in emotion dysregulation. Post-hoc probing of the interaction (see Figure 2) revealed that the slope was significant for low parental warmth ($t = -2.558$, $p = .011$) but not for high parental warmth ($t = 1.868$, $p = .062$).

Third, total parental warmth was explored as a moderator in the relationship between verbal violence exposure and emotion dysregulation (see Table 11). In this model, verbal violence significantly predicted emotion dysregulation ($\beta = .064$, $p = .044$). Total parental warmth predicted emotion dysregulation ($\beta = -.760$, $p = .001$). In the model, current age was a significant predictor of emotion dysregulation ($\beta = -.064$, $p = .024$), as was total childhood trauma ($\beta = .173$, $p < .000$). The interaction term of verbal violence X total parental warmth was also significant, suggesting that parental warmth is a moderator in the relationship between verbal violence and emotion dysregulation ($\beta = .479$, $p = .037$). The full model accounted for 20.8% of the variance in emotion dysregulation. Post-hoc probing of the interaction (see Figure 3) revealed that the slope was significant for high parental warmth ($t = 2.941$, $p = .003$) but not for low parental warmth ($t = .117$, $p = .907$).

The moderating role of total parental control in the relationship between total WPV and emotion dysregulation was then explored (see Table 12). In this model, total WPV did not predict emotion dysregulation ($\beta = .056$, $p = .099$). Total parental control predicted emotion dysregulation ($\beta = 1.252$, $p < .000$). In the model, current age was a significant predictor of emotion dysregulation ($\beta = -.058$, $p = .043$), as was total childhood trauma ($\beta = .318$, $p < .000$).

The interaction term of total WPV X total parental control was also significant, suggesting that parental control is a moderator in the relationship between total WPV and emotion dysregulation ($\beta = -1.074$, $p = .001$). The full model accounted for 19.8% of the variance in emotion dysregulation. Post-hoc probing of the interaction (see Figure 4) revealed that the slope was significant for low parental control ($t = 3.128$, $p = .002$) but not for high parental control ($t = -.762$, $p = .446$).

Total parental control was then explored as a moderator in the relationship between physical violence exposure and emotion dysregulation (see Table 13). In this model, physical violence exposure did not predict emotion dysregulation ($\beta = -.007$, $p = .850$). Total parental control predicted emotion dysregulation ($\beta = 1.521$, $p < .000$). In the model, current age was a significant predictor of emotion dysregulation ($\beta = -.062$, $p = .029$), as was total childhood trauma ($\beta = .368$, $p < .000$). The interaction term of physical violence X total parental control was also significant, suggesting that parental control is a moderator in the relationship between physical violence exposure and emotion dysregulation ($\beta = -1.348$, $p < .000$). The full model accounted for 20.7% of the variance in emotion dysregulation. Post-hoc probing of the interaction (see Figure 5) revealed that the slope was significant for high parental control ($t = -3.53$, $p = .000$) but not for low parental control ($t = 1.921$, $p = .055$).

Total parental control was explored as a moderator in the relationship between verbal violence exposure and emotion dysregulation (see Table 14). In this model, verbal violence exposure significantly predicted emotion dysregulation ($\beta = .080$, $p = .012$). Total parental control predicted emotion dysregulation ($\beta = .610$, $p = .005$). In the model, current age was a significant predictor of emotion dysregulation ($\beta = -.057$, $p = .047$), as was total childhood trauma ($\beta = .300$, $p < .000$). The interaction term of verbal violence X total parental control was

not significant, suggesting that parental control is not a moderator in the relationship between verbal violence exposure and emotion dysregulation ($\beta = -.429$, $p = .051$). The full model accounted for 19.6% of the variance in emotion dysregulation.

The moderating role of total perceived social support in the relationship between total WPV and emotion dysregulation was then explored (see Table 15). In this model, total WPV did not predict emotion dysregulation ($\beta = .053$, $p = .117$). Social support did not predict emotion dysregulation ($\beta = .244$, $p = .460$). In the model, current age was a significant predictor of emotion dysregulation ($\beta = -.068$, $p = .018$), as was total childhood trauma ($\beta = .280$, $p < .000$). The interaction term of total WPV X social support was not significant, suggesting that social support is not a moderator in the relationship between total WPV and emotion dysregulation ($\beta = -.436$, $p = .189$). The full model accounted for 18.9% of the variance in emotion dysregulation.

Total perceived social support was then explored as a moderator in the relationship between physical violence exposure and emotion dysregulation (see Table 16). In this model, physical violence exposure did not predict emotion dysregulation ($\beta = -.060$, $p = .092$). Social support did not predict emotion dysregulation ($\beta = -.093$, $p = .785$). In the model, current age was a significant predictor of emotion dysregulation ($\beta = -.071$, $p = .014$), as was total childhood trauma ($\beta = .340$, $p < .000$). The interaction term of physical violence X social support was not significant, suggesting that social support is not a moderator in the relationship between physical violence exposure and emotion dysregulation ($\beta = -.094$, $p = .783$). The full model accounted for 18.8% of the variance in emotion dysregulation.

Total perceived social support was explored as a moderator in the relationship between verbal violence and emotion dysregulation (see Table 17). In this model, verbal violence exposure predicted emotion dysregulation ($\beta = .088$, $p = .006$). Social support did not predict

emotion dysregulation ($\beta = .224, p = .287$). In the model, current age was a significant predictor of emotion dysregulation ($\beta = -.068, p = .019$), as was total childhood trauma ($\beta = .271, p < .000$). The interaction term of verbal violence X social support was significant, suggesting that social support is a moderator in the relationship between verbal violence exposure and emotion dysregulation ($\beta = -.415, p = .050$). The full model accounted for 19.4% of the variance in emotion dysregulation. Post-hoc probing of the interaction (see Figure 6) revealed that the slope was significant for low perceived social support ($t = 3.405, p = .001$) but not for high perceived social support ($t = .838, p = .402$).

The moderating role of adaptive coping in the relationship between total WPV and emotion dysregulation was then explored (see Table 18). In this model, total WPV predicted emotion dysregulation ($\beta = .073, p = .033$). Adaptive coping did not predict emotion dysregulation ($\beta = .653, p = .089$). In the model, current age was a significant predictor of emotion dysregulation ($\beta = -.063, p = .031$), as was total childhood trauma ($\beta = .362, p < .000$). The interaction term of total WPV X adaptive coping was not significant, suggesting that adaptive coping is not a moderator in the relationship between total WPV and emotion dysregulation ($\beta = -.716, p = .063$). The full model accounted for 16.5% of the variance in emotion dysregulation.

Adaptive coping was then explored as a moderator in the relationship between physical violence exposure and emotion dysregulation (see Table 19). In this model, physical violence exposure did not predict emotion dysregulation ($\beta = -.060, p = .076$). Adaptive coping did not predict emotion dysregulation ($\beta = .171, p = .690$). In the model, current age was a significant predictor of emotion dysregulation ($\beta = -.065, p = .027$), as was total childhood trauma ($\beta = .424, p < .000$). The interaction term of physical violence X adaptive coping was not significant,

suggesting that adaptive coping is not a moderator in the relationship between physical violence exposure and emotion dysregulation ($\beta = -.225$, $p = .600$). The full model accounted for 16.2% of the variance in emotion dysregulation.

Adaptive coping was explored as a moderator in the relationship between verbal violence and emotion dysregulation (see Table 20). In this model, verbal violence exposure predicted emotion dysregulation ($\beta = .106$, $p = .001$). Adaptive coping did not predict emotion dysregulation ($\beta = .374$, $p = .099$). In the model, current age was a significant predictor of emotion dysregulation ($\beta = -.062$, $p = .032$), as was total childhood trauma ($\beta = .354$, $p < .000$). The interaction term of verbal violence X adaptive coping was not significant, suggesting that adaptive coping is not a moderator in the relationship between verbal violence exposure and emotion dysregulation ($\beta = -.439$, $p = .053$). The full model accounted for 17.1% of the variance in emotion dysregulation.

The moderating role of maladaptive coping in the relationship between total WPV and emotion dysregulation was then explored (see Table 21). In this model, total WPV did not predict emotion dysregulation ($\beta = .004$, $p = .913$). Maladaptive coping did not predict emotion dysregulation ($\beta = .376$, $p = .237$). In the model, current age was a significant predictor of emotion dysregulation ($\beta = -.055$, $p = .049$), as was total childhood trauma ($\beta = .274$, $p < .000$). The interaction term of total WPV X maladaptive coping was not significant, suggesting that maladaptive coping is not a moderator in the relationship between total WPV and emotion dysregulation ($\beta = -.062$, $p = .848$). The full model accounted for 23% of the variance in emotion dysregulation.

Maladaptive coping was then explored as a moderator in the relationship between physical violence exposure and emotion dysregulation (see Table 22). In this model, physical

violence exposure did not predict emotion dysregulation ($\beta = -.066$, $p = .061$). Maladaptive coping predicted emotion dysregulation ($\beta = .634$, $p = .034$). In the model, current age was a significant predictor of emotion dysregulation ($\beta = -.058$, $p = .039$), as was total childhood trauma ($\beta = .315$, $p < .000$). The interaction term of physical violence X maladaptive coping was not significant, suggesting that maladaptive coping is not a moderator in the relationship between physical violence exposure and emotion dysregulation ($\beta = -.322$, $p = .291$). The full model accounted for 23.6% of the variance in emotion dysregulation.

Maladaptive coping was explored as a moderator in the relationship between verbal violence and emotion dysregulation (see Table 23). In this model, verbal violence exposure did not predict emotion dysregulation ($\beta = .036$, $p = .257$). Maladaptive coping did not predict emotion dysregulation ($\beta = .188$, $p = .380$). In the model, total childhood trauma was a significant predictor of emotion dysregulation ($\beta = .259$, $p < .000$), as was lifetime trauma ($\beta = -.067$, $p = .037$). The interaction term of verbal violence X maladaptive coping was not significant, suggesting that maladaptive coping is not a moderator in the relationship between verbal violence exposure and emotion dysregulation ($\beta = .124$, $p = .569$). The full model accounted for 23.1% of the variance in emotion dysregulation.

The moderating role of age of onset of WPV in the relationship between total WPV and emotion dysregulation was then explored (see Table 24). In this model, total WPV did not predict emotion dysregulation ($\beta = .056$, $p = .148$). Age of onset predicted emotion dysregulation ($\beta = -.822$, $p = .036$). In the model, current age was a significant predictor of emotion dysregulation ($\beta = -.081$, $p = .012$), as was total childhood trauma ($\beta = .365$, $p < .000$). The interaction term of total WPV X age of onset was significant, suggesting that age of onset of WPV is a moderator in the relationship between total WPV and emotion dysregulation ($\beta = .812$,

$p = .039$). The full model accounted for 15.3% of the variance in emotion dysregulation. Post-hoc probing of the interaction (see Figure 7) revealed that the slope was significant for high age of onset ($t = 2.284$, $p = .023$) but not for low age of onset ($t = .883$, $p = .378$).

Age of onset of WPV was then explored as a moderator in the relationship between physical violence exposure and emotion dysregulation (see Table 25). In this model, physical violence exposure did not predict emotion dysregulation ($\beta = -.032$, $p = .437$). Age of onset predicted emotion dysregulation ($\beta = -.890$, $p = .034$). In the model, current age was a significant predictor of emotion dysregulation ($\beta = -.083$, $p = .009$), as was total childhood trauma ($\beta = .407$, $p < .000$). The interaction term of physical violence X age of onset was significant, suggesting that age of onset of WPV is a moderator in the relationship between physical violence exposure and emotion dysregulation ($\beta = .869$, $p = .041$). The full model accounted for 15.5% of the variance in emotion dysregulation. Post-hoc probing of the interaction (see Figure 8) revealed that the slope was not significant for high age of onset ($t = .646$, $p = .518$) or for low age of onset ($t = -.250$, $p = .803$).

Age of onset of WPV was explored as a moderator in the relationship between verbal violence and emotion dysregulation (see Table 26). In this model, verbal violence exposure predicted emotion dysregulation ($\beta = .084$, $p = .022$). Age of onset did not predict emotion dysregulation ($\beta = -.365$, $p = .145$). In the model, current age was a significant predictor of emotion dysregulation ($\beta = -.079$, $p = .013$), as was total childhood trauma ($\beta = .354$, $p < .000$). The interaction term of verbal violence X age of onset was not significant, suggesting that age of onset of WPV is not a moderator in the relationship between verbal violence exposure and emotion dysregulation ($\beta = .363$, $p = .148$). The full model accounted for 15.5% of the variance in emotion dysregulation.

The moderating role of gender in the relationship between total WPV and emotion dysregulation was then explored (see Table 27). In this model, total WPV did not predict emotion dysregulation ($\beta = .000$, $p = .994$). Gender did not predict emotion dysregulation ($\beta = -.368$, $p = .306$). In the model, current age was a significant predictor of emotion dysregulation ($\beta = -.060$, $p = .040$), as was total childhood trauma ($\beta = .365$, $p < .000$). The interaction term of total WPV X gender was not significant, suggesting that gender is not a moderator in the relationship between total WPV and emotion dysregulation ($\beta = .431$, $p = .240$). The full model accounted for 16.3% of the variance in emotion dysregulation.

Gender was then explored as a moderator in the relationship between physical violence exposure and emotion dysregulation (see Table 28). In this model, physical violence exposure did not predict emotion dysregulation ($\beta = -.081$, $p = .166$). Gender did not predict emotion dysregulation ($\beta = -.034$, $p = .920$). In the model, current age was a significant predictor of emotion dysregulation ($\beta = -.063$, $p = .032$), as was total childhood trauma ($\beta = .429$, $p < .000$). The interaction term of physical violence X gender was not significant, suggesting that gender is not a moderator in the relationship between physical violence exposure and emotion dysregulation ($\beta = .092$, $p = .787$). The full model accounted for 16.3% of the variance in emotion dysregulation.

Gender was explored as a moderator in the relationship between verbal violence and emotion dysregulation (see Table 29). In this model, verbal violence exposure did not predict emotion dysregulation ($\beta = .024$, $p = .686$). Gender did not predict emotion dysregulation ($\beta = -.282$, $p = .222$). In the model, current age was a significant predictor of emotion dysregulation ($\beta = -.059$, $p = .043$), as was total childhood trauma ($\beta = .354$, $p < .000$). The interaction term of verbal violence X gender was not significant, suggesting that gender is not a moderator in the

relationship between verbal violence exposure and emotion dysregulation ($\beta = .347$, $p = .147$). The full model accounted for 16.8% of the variance in emotion dysregulation.

3.6 Exploratory Analyses

Additional exploratory analyses were conducted to examine the above relationships at a finer level. Specifically, warmth and control from the mother (or mother figure) and warmth and control from the father (or father figure) were each separately examined as a moderator between the three main types of WPV and emotion dysregulation. Social support from peers, family members, and non-family adult were also each examined separately as moderators between the three main types of WPV and emotion dysregulation.

Maternal warmth was first examined (see Table 30 and Figure 9). The interaction term of total WPV X maternal warmth was significant predictor of emotion dysregulation ($\beta = 1.565$, $p = .000$), with 20% of variance in emotion dysregulation accounted for. The interaction term of physical violence exposure X maternal warmth was significant predictor of emotion dysregulation ($\beta = 1.354$, $p = .000$), with 19.9% of variance in emotion dysregulation accounted for. The interaction term of verbal violence exposure X maternal warmth was also significant predictor of emotion dysregulation ($\beta = .841$, $p = .000$), with 19.7% of variance accounted for.

Paternal warmth was examined next (see Table 31 and Figure 10). The interaction term of total WPV X paternal warmth was significant predictor of emotion dysregulation ($\beta = .971$, $p = .004$), with 19.1% of variance in emotion dysregulation accounted for. The interaction term of physical violence exposure X paternal warmth was significant predictor of emotion dysregulation ($\beta = .788$, $p = .017$), with 19.2% of variance in emotion dysregulation accounted for. The interaction term of verbal violence exposure X paternal warmth was also significant

predictor of emotion dysregulation ($\beta = .488$, $p = .041$), with 19.0% of variance in emotion dysregulation accounted for.

The moderating role of maternal control was then examined (see Table 32 and Figure 11). The interaction term of total WPV X maternal control was significant predictor of emotion dysregulation ($\beta = -.865$, $p = .011$), with 18.4% of variance in emotion dysregulation accounted for. The interaction term of physical violence exposure X maternal control was significant predictor of emotion dysregulation ($\beta = -.951$, $p = .004$), with 18.7% of variance in emotion dysregulation accounted for. The interaction term of verbal violence exposure X maternal control was not significant predictor of emotion dysregulation ($\beta = -.401$, $p = .080$).

Next, paternal control was examined as a moderator (see Table 33 and figure 12). The interaction term of total WPV X paternal control was significant predictor of emotion dysregulation ($\beta = -1.242$, $p = .000$), with 19.4% of variance in emotion dysregulation accounted for. The interaction term of physical violence exposure X paternal control was also significant predictor of emotion dysregulation ($\beta = -1.360$, $p = .000$), with 19.1% of variance in emotion dysregulation accounted for. The interaction term of verbal violence exposure X paternal control was significant predictor of emotion dysregulation ($\beta = -.542$, $p = .014$), with 19.1% of variance in emotion dysregulation accounted for.

Several studies have found parenting practices to mediate the relationship between violence exposure and outcomes (Gamez-Guadix et al. 2012; Shen, 2009). As such, parental warmth and control were explored as mediators using Baron and Kenny's (1986) model of mediator test. Mediation is supported if: 1) independent variable (IV) predicts the mediator, 2) the IV predicts the dependent variable (DV) in the absence of the mediator, 3) the mediator predicts the DV, and 4) the effect of the IV on the DV shrinks in the presence of the mediator in

the model. Additionally, Sobel test (1982) is used to statistically determine the significance of the mediation.

First, parental warmth was tested as a mediator in the relationship between total WPV and emotion dysregulation using the four steps: 1) total WPV significantly predicted parental warmth, 2) total WPV did not predict emotion dysregulation. As a test of mediation requires significant relationship between the IV and the DV, the test of mediation was not continued.

Parental warmth was then tested as a mediator in the relationship between verbal violence exposure and emotion dysregulation using the four steps: 1) verbal violence significantly predicted parental warmth, 2) verbal violence also predicted emotion dysregulation, 3) parental warmth predicted emotion dysregulation, and 4) both verbal violence and parental warmth remained significant in the prediction of emotion dysregulation. The Sobel test was found to be significant ($z = 3.965$, $p = .000$). As such, the analyses provide support for partial mediation (see Table 34).

Parental warmth was then tested as a mediator in the relationship between physical violence exposure and emotion dysregulation using the four steps: 1) physical violence did not significantly predict parental warmth. As such, the test of mediation was discontinued.

Next, parental control was tested as a mediator in the relationship between total WPV and emotion dysregulation using the four steps: 1) total WPV significantly predicted parental control, 2) total WPV did not predict emotion dysregulation. As a test of mediation requires significant relationship between the IV and the DV, the test of mediation was not continued.

Parental control was then tested as a mediator in the relationship between verbal violence exposure and emotion dysregulation using the four steps: 1) verbal violence significantly predicted parental control, 2) verbal violence also predicted emotion dysregulation, 3) parental

control predicted emotion dysregulation, and 4) both verbal violence and parental control remained significant in the prediction of emotion dysregulation. The Sobel test was found to be significant ($z = 2.953$, $p = .003$). As such, the analyses provide support for partial mediation (see Table 35).

Parental control was then tested as a mediator in the relationship between physical violence exposure and emotion dysregulation using the four steps: 1) physical violence significantly predicted parental control, 2) physical violence also predicted emotion dysregulation, 3) parental control predicted emotion dysregulation, and 4) both physical violence and parental control remained significant in the prediction of emotion dysregulation. The Sobel test, however, was not found to be significant ($z = 1.92$, $p = .054$). As such, the analyses did not provide support for mediation (see Table 36).

The different types of perceived social support (nonfamily, other family, and friends) were next examined as moderators in the relationship between the three types of WPV and emotion dysregulation. The interaction term of total WPV X other family social support was not significant predictor of emotion dysregulation ($\beta = -.575$, $p = .087$), and neither was the interaction term of physical violence exposure X other family social ($\beta = -.197$, $p = .568$). The interaction term of verbal violence exposure X other family social support was significant predictor of emotion dysregulation ($\beta = -.506$, $p = .020$), with 19.1% of variance in emotion dysregulation accounted for (see Table 37 and Figure 13).

The interaction term of total WPV X nonfamily social support was not significant predictor of emotion dysregulation ($\beta = -.308$, $p = .377$). The interaction term of physical violence exposure X nonfamily social support was also not significant predictor of emotion

dysregulation ($\beta = -.474$, $p = .184$), and neither was the interaction term of verbal violence exposure x nonfamily social support ($\beta = -.196$, $p = .377$) (see Table 38).

The interaction term of total WPV X friend social support was not significant predictor of emotion dysregulation ($\beta = .188$, $p = .562$). The interaction term of physical violence exposure X friends social support was also not significant predictor of emotion dysregulation ($\beta = .506$, $p = .105$) and neither was the interaction term of verbal violence exposure X friends social support ($\beta = -.071$, $p = .735$) (see Table 39).

3.7 Factor Analysis of Brief COPE

The current study used the Brief COPE developed by Carver (1997) to assess for the different types of coping strategies utilized by the respondents following WPV. The adaptive/maladaptive subscales of the Brief COPE were used for the current study based on the current literature on the impact of those types of coping styles on emotion regulation difficulties (Belizaire & Fuertes, 2011). However, Carver posits that one of the major benefits of using Brief COPE is the flexibility in using the different coping strategies in developing subscales as needed and as suited for the population data. Gould, Watson, Price, and Valliant (2013) also suggest that the Brief COPE may be used with three subscales- emotion focused, problem focused, and dysfunctional. In order to determine which of the two subscale structures (two factor vs. three factors) fits better with the current data, confirmatory factor analyses (CFA) were conducted using Mplus Version 6.12 (Muthen & Muthen, 2011).

A CFA with robust maximum likelihood estimation was conducted on the 28 items of Brief COPE two-factor model (e.g. Belizaire & Fuertes, 2011). The fit of the model was evaluated using four fit indices: the comparative fit index (CFI; $>.90$ indicates good fit), the Tucker-Lewis Index (TLI; $>.90$ indicates good fit), the root-mean-square error of approximation (RMSEA; $<.06$ indicates good error of approximation), and the standardized root-mean-square

residual (SRMR; <.08 indicates good fit). The results of the two-factor CFA indicated that the current data did not fit this model well ($\chi^2(349) = 5704.88$, $p < .000$; CFI = .579; TLI = .544; RMSEA = .121, 90% CI = .119, .124; SRMR = .117). As such, further exploration of the factor structure of the Brief COPE was important.

Another CFA with robust maximum likelihood estimation was conducted on the Brief COPE three-factor model (e.g. Gould et al., 2012). The fit of the model was determined using the same four fit indices as in the first CFA. The results of the three-factor CFA indicated that the current data did not fit this model well ($\chi^2(347) = 5691.82$, $p < .000$; CFI = .579; TLI = .542; RMSEA = .122, 90% CI = .119, .124; SRMR = .115).

As both factor structures of the Brief COPE used in previous studies did not fit the current data well, an exploratory data analysis (EFA) was conducted using SPSS. The initial estimation yielded seven factors with eigenvalues greater than 1, accounting for 68.79% of the total variance. However, a scree plot suggested two factors, as did the incremental variance accounted for. Furthermore, only the first two factors has more than three items with factor loading >.40. As such, a two factor solution was rotated using promax rotation with principal axis method of extraction with iterated communalities. The final factor structure was selected by retaining items with factor loadings > .40 and deleting items with cross-loadings > .30.

The first factor consisted of 14 items (see Table 40). 13 of these were from the original Adaptive Coping factor of the Brief COPE. Item 21 (I expressed my negative feelings), which was in the original Maladaptive Coping, loaded onto this factor in the current study. The second factor consisted of 10 items (see Table 40). Nine of these were from the original Maladaptive Coping factor. Item 24 (I learned to live with it), which was in the original Adaptive Coping, loaded onto this factor in the current study. Item 19 (I did something to think about it less, such

as going to movies, watching TV, reading, daydreaming, sleeping, or shopping) was discarded because it cross-loaded onto both factors (cross loading $>.30$), and items 18 (I made jokes about it), 1 (I turned to work or other activities to take my mind off things), and 28 (I made fun of the situation) were discarded because they did not load onto either factor (factor loading $<.40$). Items 19 and 1 are venting strategies, whereas items 18 and 28 are humor strategies as described by Carver (1997) in the original Brief COPE.

The items in each of the modified factors were added to create the new modified adaptive coping and modified maladaptive coping subscales. These scales were found to have good internal consistency (Cronbach's α .913 for modified adaptive scale and .842 for modified maladaptive scale). Each of these scales was then analyzed as a moderator in the relationship between the three main types of WPV and emotion dysregulation. Neither the modified adaptive subscale nor the modified maladaptive subscale was found to moderate the relationship between any of the three WPV types and emotion dysregulation (see Tables 41 and 42).

4.0 Discussion

Witnessing partner violence (WPV) in childhood is associated with a number of difficulties such as internalizing and externalizing disorders (Dehon & Weems, 2010), substance use (Fagan & Wright, 2011; Russell et al., 2010), PTSD and trauma symptoms (Hajyahia et al., 2011; Levendosky et al., 2002), and IPV perpetration and victimization (Fritz et al., 2012) in childhood, adolescence, and adulthood. Importantly, WPV has been shown to have negative associations with functioning over and above the impact of physical, sexual, and emotional abuse and other trauma (Fergusson & Horwood, 1998; Henning, Leitenberg, Coffey, Turner, & Bennett, 1996; Roustit et al., 2009). WPV has also been linked to emotional difficulties including problems with habituation of arousal (Howell & Graham-Bermann, 2011), use of anger

as the default emotion (Fosco et al., 2007), and inappropriate and inadequate expression of emotions (Margolin, 2005). The current study sought to understand the relationship between WPV and emotion regulation difficulties in emerging adulthood. Specifically, parental bonds, perceived social support, coping style, age of onset of WPV, and gender were explored as moderators in the relationship between WPV and emotion dysregulation.

4.1 Summary of Findings

As mentioned above, 1,040 (81.5%) respondents out of 1,276 who completed the survey reported at least one incidence of WPV and were thus included in the current study. Out of these included respondents, 1,039 (99.9%) reported at least one incidence of verbal violence, while only 319 (30.7%) reported at least one incidence of physical violence. Similar to this finding, Blumenthal, Neeman, and Murphy (1998) used both verbal and physical violence subscales of the CTS2 in college population and found that 30.1% of the respondents reported witnessing at least one type of physical violence, and 95.3% respondents reported witnessing at least one type of verbal violence. However, these numbers are higher than noted in most literature, where the prevalence rates of childhood interparental violence as reported by adults have been between 20 to 58.3% (Black et al., 2010; Evans et al., 2008; Frazier et al., 2008). This discrepancy in prevalence of WPV may be because of the use of the complete CTS2-CA and inclusion of non-biological parents and parent figures as perpetrators in the current study. Frazier and colleagues (2009), for example, used a single item to assess the prevalence of WPV, whereas Black et al. (2010) used a modified version of the CTS2 and did not specify violence from non-biological parents. The current data suggests that a significantly larger number of children may be exposed to partner violence than previously reported when a variety of types of verbal and physical violence and different perpetrators are considered.

Despite the high prevalence rate, the total WPV, verbal violence exposure, and physical violence exposure scores obtained from the CTS2-CA had low means, suggesting that although all respondents included in the study reported having witnessed violence between their parents or parent figures (henceforth referred to simply as parents) at least once, most of them endorsed having witnessed only few types of violence and in very low frequencies. This was especially true for physical violence exposure, as most respondents did not report having witnessed any of such violence, and when they did, they reported very low frequencies. These low means are similar to those reported in other studies using the CTS2 with undergraduate college students (e.g. Black et al., 2010; Blumenthal et al., 1998; Hanson et al., 1992; Silvern et al., 1996). A possible reason behind this may be the characteristics of the population at hand. Individuals who grow up in severely violent households may not progress to the college level, and thus would not be a part of this study (Hanson et al., 1992). It is likely that the respondents came from a relatively non-violent and functional family background that contributed to their entrance into and continued enrollment in college.

Exploration of reports of WPV based on the CTS2-CA revealed that majority of the respondents identified their biological parent as the perpetrator of the violence- 73.9% of the respondents reported that their biological father victimized their mother and 80.7% reported that their biological mother victimized their father. In both cases, perpetration by the step parent was the second most frequent, followed by parent's boyfriend or girlfriend, adoptive parent, and parent's same sex partner. This suggests that majority of individuals who are exposed to partner violence do so with their biological parents.

Respondents reported "shouted or yelled" to be the most frequent type of verbal violence perpetrated against both mother and father. "Pushed or shoved" and "grabbed" were the most

frequently reported physical violence perpetrated against the mother, while “pushed or shoved” and “threw something” were the most frequently reported physical violence against the father. Silvern et al. (1996) also found similar reports of violence frequency, with throwing an object at partner and pushing or shoving a partner being the two types of interparental physical violence reported to be most frequent by undergraduate students.

The proposed hypotheses were tested using hierarchical regression analyses controlling for current age, SES, lifetime trauma, and childhood abuse and neglect. The first hypothesis stated that higher frequency of WPV would predict higher levels of emotion dysregulation. It was also hypothesized that when explored separately, physical violence exposure would be a stronger predictor of outcome than verbal violence exposure. These hypotheses were tested using the total and the physical and verbal WPV subscales scores from the CTS2-CA and the total DERS score. When the total WPV was used as the predictor, the current data did not support this hypothesis. The data also showed that verbal violence exposure predicted higher levels of emotion dysregulation, whereas physical violence exposure predicted lower levels of dysregulation.

The finding regarding the impact of verbal violence exposure suggests that these experiences are negatively associated with emotion regulation abilities, thus providing partial support to the current literature on WPV and outcomes. Children’s development of understanding, processing, and regulation of emotions effectively can be disrupted by violence and interpersonal conflicts that cause negative affect (Greenberg et al., 1991). Children exposed to partner violence may experience fear, confusion, and negative arousal that do not habituate or subside (Ainsworth, 1989; Howell & Graham-Bermann, 2011). During such experiences, children may get inconsistent or inadequate attention and comfort from the caregiver, which may

be associated with amplification or suppression of the negative emotions due to the lack of proper emotional guidance from the caregiver (Ainsworth, 1989). As such, children living in households with partner violence may not acquire appropriate strategies for regulating their emotions and may resort to aggression and emotional reactivity to cope with potential threat (Fosco et al, 2007; Gardner et al., 2011). The current findings add to this literature by showing that exposure to verbal violence is associated with emotion regulation difficulties in distressing situations.

A reason behind the finding that verbal violence predicted higher levels of emotion dysregulation whereas physical violence did not may be because of the higher prevalence and frequency of verbal violence in the current sample. As verbal violence was more pervasive than physical violence was, it is likely that the emotional disturbances caused by repetitive verbal violence exposure was more stable over time, which was then related to greater levels of emotion regulation difficulties in adulthood (Blumenthal et al., 1998). Furthermore, Blumenthal and colleagues posit that college students are likely to report verbal violence to have occurred more recently than physical violence. Verbal violence between parents may have peaked or remained till later on in childhood and adolescence such that its impact would be more recent and stronger. Hanson and colleagues (1992) also report that presence of severe physical violence may result in termination of the relationship. It is possible that respondents reported low frequencies of physical violence because the victimized and perpetrating parent or parent figures separated, and as such, the sporadic violence exposure was not significantly associated with emotion regulation abilities. However, information regarding parental separation and divorce were not obtained and further inferences are not made.

Another important reason behind these discrepant findings may be the characteristics of the data collected regarding these violence types. More types and frequencies of verbal violence were reported than of physical violence, leading to a more normal distribution and more variance in the measure of verbal violence. On the other hand, most individuals reported not having witnessed any physical violence, and those who did endorsed few types in low frequencies, leading to a positive skew in this data. Similar skew was also observed in total WPV, as this measure was made up of both verbal and physical violence. As such, verbal violence exposure may have higher predictive potential than physical violence and total WPV. The non-normality of the physical violence measure may also be responsible for the marginally significant prediction of lower levels of emotion dysregulation from physical violence, a finding opposite of what is reported in the literature (Fantuzzo et al., 1991; Kitzmann et al., 2003).

Despite these methodological concerns, the current findings suggest that individuals may be resilient to adverse effects of sporadic and low levels of physical violence exposures. Mancini and Bonanno (2010) posit that isolated potentially traumatic events in childhood are rarely associated with significant PTSD, suggesting that children cope well with these types of trauma. Studies have overall found high resilience among children exposed to traumatic events (Masten, 2001; Copeland, Keeler, Angold, & Costello, 2007). For example, in their longitudinal study on children exposed to violence, interpersonal loss, and other childhood traumas, Copeland and colleagues found that less than 0.5% of the children met PTSD diagnostic criteria. The findings from this study suggest that while more frequent verbal violence exposure may be associated with negative outcomes in adulthood, individuals may be more resilient to sporadic physical violence exposure.

The next set of hypotheses tested parental bonds as moderators in the relationship between WPV and emotion dysregulation. Parenting practices have been found to play a vital role in outcomes following WPV in children (e.g. Owen et al., 2009; Sturge-Apple et al., 2010). The current study sought to add to the literature by examining the roles of parental warmth and control in the relationship between WPV and emotion dysregulation. Analyses found that parental warmth did act as a moderator in the relationship between total WPV and emotion dysregulation. When examined separately for the prediction of emotion dysregulation, the interactions between parental warmth and physical violence exposure and parental warmth and verbal violence were both significant. Both maternal and paternal warmth were moderators in the relationship between the three types of WPV and emotion dysregulation when analyzed separately.

However, these interactions were found to be in the direction contrary to what was expected based on previous research. Maternal warmth, support, authoritative parenting, and good quality of relationship between mother and child have previously been found to mitigate the negative impact of WPV on psychological outcomes in children (Johnson & Lieberman, 2007; Owen et al., 2009; Sturge-Apple et al., 2010). Parental support, quality of relationship, parenting practices, and parental warmth have also been found to impact the relationship between childhood WPV and outcomes in adults and college students (Gamez-Guadix et al. 2012; Nicholas & Rasmussen, 2006; Shen, 2009). The current study however, found that for individuals who reported high parental warmth, higher doses of WPV predicted higher levels of dysregulation.

From a family systems perspective, triangulation, a process in which partner violence may inappropriately involve the child by him or her having to take sides (Minuchin, 1974), may

provide insight into the current findings. Recent studies on triangulation have found that such a phenomenon can result in the children feeling pressured and torn between the parents, which can develop into adjustment problems and externalizing behaviors (Kerig & Swanson, 2010). More importantly, Etkin, Koss, Cummings, and Davies (2014) found that the triadic process of triangulation is influenced by the dyadic-level relationships between the child and each of the parents. Specifically, they found significant 3-way interaction among triangulation and maternal and paternal warmth, such that certain types of high warmth in the context of high triangulation predicted increased externalizing problems. It is imperative that the construct of triangulation be explored further in the context of WPV and parental warmth in examining their long term impact on emotion regulation.

It may also be possible that the individuals who experience interparental violence and high degree of parental warmth find the contradictory parental responses from the two incidents inconsistent and confusing. While parental warmth is associated with parental availability and care and is related to positive emotions, marital violence is associated with emotional disengagement and unavailability and is related to fear, vulnerability, and other negative emotions (Cyr et al., 2010; Godbout, Dutton, Lussier, & Sabourin, 2009). In the attachment literature it has been noted that inconsistent parenting that involves high degree of neglect or dismissal during some emotional situations and care and protection in other is associated with insecure attachment due to the disruption of reliable felt security (Mikulincer & Shaver, 2007). Insecure attachment, in turn, has been associated with high degree of emotional difficulties that involves exaggeration, suppression, or denial of emotions (Ainsworth, 1989; Lussier, Sabourin, & Turgeon, 1997). It may be that witnessing high degrees of WPV and experiencing high levels

of warmth was associated with development of attachment insecurity due to the contradictory nature of these incidents, which was in turn related to higher levels of emotional difficulties.

Another reason why high parental warmth exacerbated the impact of WPV on emotion dysregulation could be that witnessing a parent with whom one has strong emotional connection be victimized by another parent or be violent to each other is more detrimental than if the ties were not as strong. It may be, for example, that if a child experienced high levels of warmth from the mother and thus formed strong emotional connection with her, seeing her be verbally or physically attacked is more traumatic. Similarly, experiencing the mother be warm and caring to the child but violent and aggressive towards her partner could also be associated with conflicted emotions and cognitions regarding the mother, which in turn may be related to more severe difficulties. Research demonstrating these relationships, however, are lacking and should be considered in order to understand the current findings adequately.

The current study explored parental warmth as a moderator in the relationship between WPV and emotion dysregulation, but it is possible that WPV exposure actually moderated the relationship between warmth and the outcome. As several studies have shown, parental warmth is an important factor in the development of emotion regulation abilities (Fosco & Grych, 2013). It may be that the respondents also experienced positive gains from parental warmth in their childhood, but introduction of WPV was associated with reduction in the impact warmth had on emotion regulation. These relationships need to be theoretically and empirically explored further, but are beyond the scope of the current study.

Parental control also acted as a moderator between total WPV and emotion dysregulation. When analyzed separately, the interaction between parental control and physical violence exposure was significant, while the interaction between parental control and verbal violence was

not. Maternal control and paternal control were also analyzed separately as moderators in the prediction of emotion dysregulation. It was found that maternal control acted a moderator via its interaction with total WPV and physical violence exposure, but not for its interaction with verbal violence exposure. Paternal control, on the other hand, was a moderator in the prediction of emotion dysregulation via its significant interactions with total WPV, physical violence exposure, and verbal violence exposure.

Upon closer examination of the interactions between the WPV types and parental control, it was found that the interaction predicted lower levels of emotion dysregulation, suggesting that parental control mitigated the negative impact of WPV. This finding is contrary to what was predicted based on previous studies on parenting which have found that harsh parenting that involves control, hostility, and disengagement can worsen the impact of WPV on functioning in a variety of domains (Gamez-Guadix et al., 2012; Katz & Low, 2004; Sturge-Apple et al., 2010).

The prediction of lesser emotion regulation difficulties by the interaction between parental control and WPV may be due to the protective nature of parenting control. Some studies have shown that low levels of parental control are associated with negative outcomes such as aggression, poor self-control, and delinquency (e.g. Gray & Steinberg, 1999). This may be especially true in the context of WPV, where children who are exposed to such violence may be at risk of developing such emotional and behavioral difficulties. Parents who experience violence in their own intimate relationships may be over-protective of their off-springs to ensure their safety and development. In such cases, parental control and monitoring may prevent negative outcomes and help develop appropriate emotional regulation abilities. Indeed, some studies on parenting practices among high risk children and adolescents have found that high

parental control and monitoring serve as protective factors against alcohol and substance use disorders (Ciairano, Liewer, & Rabaglietti, 2009; Moore, Rothwell, & Segrott, 2010).

Furthermore, factor analytic studies have shown that parental control can be of two distinct types- psychological and behavioral (Aunola & Nurmi, 2005; Hasebe, Nucci, & Nucci, 2004; Shek, 2007). While psychological control is generally found to be associated with negative outcomes, optimal levels of behavioral control that involves developmentally appropriate and reasonable limits are associated with reduced maladaptive behaviors via allowance of adequate learning of self-regulation (Barber et al., 1994). Given that the control subscale of the PBI used in the current study consists of mostly behavioral items (e.g. “Tried to control everything I did”; Parker et al.; 1979), such parenting practices may have functioned as protective factors in emotion regulation difficulties following WPV.

Parenting practices and parent-child relationship have often been examined as and found to be a mediator in the relationship between childhood trauma and outcomes (Gamez-Guadix et al., 2012; Shen, 2009; Sturge-Apple et al., 2010). The current study also explored parental warmth and control as mediators in the relationship between WPV and emotion dysregulation. The mediation hypotheses for both warmth and control were partially supported only for verbal violence exposure and its association with emotion dysregulation. The inclusion of parental warmth decreased the negative association between verbal violence and emotion dysregulation but did not completely account for it. Same was the case for parental control, which accounted for partial but not all of the negative association between verbal violence and emotion dysregulation. This suggests that witnessing verbal violence between parents is related to lower levels of parental warmth and higher levels of parental conflict, which may in turn be associated with difficulties with emotion regulation.

These findings regarding parental warmth and control's mediation, at least partially, of the impact of verbal violence on negative outcome is consistent with previous mentioned studies. The spillover hypothesis (Easterbrooks & Emde, 1988) posits that negativity, anger, and other emotions generated by marital and intimate partner violence may result in diminished warmth and responsiveness and increased hostility and control in parenting practices. This decrease in responsive parenting and increase in hostile parenting may in turn weaken the children's perception of source of security, protection, and support, thus resulting in adjustment problems (Sturge-Apple et al., 2010). These parenting behaviors may also diminish the opportunities for the children to learn adaptive emotion regulation skills, thus resulting in more emotional and behavioral difficulties (Ziedner et al. 2003).

Taken together, the findings from the moderation and mediation analyses present a complex dynamic between WPV and parental bonds in the prediction of long term emotional adjustment. Generally, the moderation analyses showed that in the context of WPV, high levels of parental warmth may be detrimental to emotion regulation abilities, while high levels of parental control may be beneficial. However, parental warmth and control were also found to explain a part of the mechanism via which verbal violence exposure impacts emotion regulation; i.e., overall, verbal violence exposure is associated with lower parental warmth and higher parental control, which in turn are associated with worse outcomes. It is imperative that further research explore these different relationships carefully to understand their complexities.

The next set of hypotheses tested the moderating role of perceived social support, which has been long known to be significantly associated with psychological functioning following a variety of stressful events (e.g Muller et al., 2000). In the prediction of emotion dysregulation, total perceived social support's interaction with verbal violence exposure was significant, but its

interactions with total WPV and physical violence exposure were not. These findings partially support previous findings on the impact of social support on mental health. Owen et al. (2008), for example, found that social support mediated the relationship between intimate partner conflict and internalizing problems in children. The current study added to this literature by demonstrating that perceived social support in presence of exposure to verbal interparental violence is associated with emotion dysregulation.

Limited studies on social support in the context of WPV have examined the roles of family members, friends, and others separately (e.g. Gonzales et al., 2012). As such, support from family members other than parents, adults outside the family, and friends were each assessed individually in the prediction of emotion dysregulation. Support from family members other than parents moderated the relationship between verbal violence exposure and emotion dysregulation, but not for total WPV and physical violence exposure. This result partially supports findings from studies, although limited, on the impact of family members on adjustment in the context of WPV. Gonzales and colleagues' (2012) qualitative study found that men who were exposed to family violence in childhood but had caring adult family members reported better adjustment in their adulthood. Grych and Fincham (1997) also add that availability of extended family members can allow for better adjustment in children who live in marital conflict environment. The current results add empirical support to this literature by showing that having family members other than parents to get emotional help and support and talk to about problems is associated with reduction in the negative impact of exposure to verbal violence.

Social support from non-family adults and friends were not moderators for any of the three types of WPV. These findings contradict the literature on social support that suggests that having good relationships with adults outside of the house and peers is related to better outcomes

in the context of family violence (Grych & Fincham, 1997; Rogers & Holmbeck, 1997; Shen, 2009). However, it should be noted that the methodological rigor used in the current study is quite different from those used in previous research. For example, Rogers and Holmbeck's study (1997) explored peer relationship as a measure of cognitive appraisal regarding parental conflict while Shen (2009) used two items that were not based on an empirically supported social support measure to assess peer relationship quality. Furthermore, these studies did not adequately control for other childhood traumas that may play a significant role in peer support and outcomes. Regarding support from non-family adults, Grych and Fincham's (1997) reports are based on clinical accounts and qualitative data and have not been demonstrated by empirical research.

These discrepant findings may also be accounted for by the poor nature of social relationships in children from severely violent families reported in the literature. For example, Moore et al. (1990) note that children living in violent household may not be allowed to or be afraid to bring their friends home, and may not attend school regularly to develop close peer relationships. Children may also lose extra-familial social support if they are forced to move away from the perpetrator or due to parental separation (Beeman, 2001), thus reducing the resources that the children may perceive to be supportive and available.

It is also possible that the disruption to emotion regulation abilities following WPV itself is associated with reduction in the availability of adequate social support and appropriate use of what is available. Although total WPV and physical violence exposure did not predict long term outcomes, possibly due to the factors mentioned above, they may have been associated with immediate or short term impact on emotion regulation and other difficulties, which then were related to low social resources. To this effect, Graham-Bermann (1998) notes that children who are exposed to violence at home are more likely to use aggression in their peer relationships and

have poorly developed social skills, which may contribute to the lack of quality social support. Furthermore, children from violence households may also have poor conflict resolution skills and be more socially isolated such that they do not develop adequate peer relationship (Owen et al., 2008). However, information regarding the impact of WPV on the quality of peer relationships in childhood was not obtained, and as such inferences are made based on the findings of existing research.

Perception, availability, and use of social support may also depend on age and developmental level of the individual. Adolescents may be more able to seek out and benefit from peer support and individuals outside the family, whereas younger children may be more reliant on family members who are readily available (Bokhorst, Sumter, & Westenberg, 2010; Helsen, Vollebergh, & Meeus, 2000). This may also explain why family support emerged as a moderator but peer and non-family support did not- the former type of support may be available to individuals since early childhood, and they may thus be able to use those resources better due to closeness and familiarity. However, support from peers and other adults may not be available until later in childhood, and as such may be associated with outcomes of WPV. Analyses of these complex relationships between age and social support in the context of WPV and its outcomes were outside the scope of the current study and are thus not discussed further.

The moderating roles of adaptive and maladaptive coping strategies were explored in the next set of hypotheses. The role of coping strategies used during stressful life events in determining outcomes is abundant in the literature (e.g. Cunningham & Baker, 2011). How children and adults cope with traumatic experiences can have significant impact on resilience against, the development and course of, and recovery from psychological disorders (Overlien & Hyden, 2009). Studies in the field of WPV, although limited, have found adaptive coping

strategies to have positive effects and maladaptive or dysfunctional coping to have negative effects on functioning (Cummingham & Baker, 2011; Nicolotti et al., 2003; Santiago & Wadsworth, 2009). As such, the current study explored these two types of coping styles as moderators in the relationships between the three types of WPV and emotion dysregulation. Contrary to previous findings, neither adaptive coping nor maladaptive coping was found to be a moderator in those relationships.

A possible explanation for the lack of moderation by the adaptive and maladaptive subscales of the Brief COPE is that these subscales did not adequately capture the coping styles used by the respondents to deal with WPV. Brief COPE (Carver, 1997), the measure used to assess coping, is flexible in terms of its classification according to the issue and the population at hand. As such, CFAs were conducted to explore the possibility of other classifications of the Brief COPE fitting the data better, and hence being more predictive of outcomes. The current data did not fit either of the classifications of the Brief COPE used widely in coping research (i.e., two factor adaptive and maladaptive, and three factor emotion-focused, problem-focused, and dysfunctional). An EFA revealed a two-factor structure very similar to the original adaptive-maladaptive subscales structure, which were then used as modified coping subscales. The interactions between these modified subscales and WPV also did not predict emotion dysregulation.

A reason why the hypotheses regarding adaptive and maladaptive coping as moderators were not supported for either the original subscales or the modified versions may be the use of Brief COPE as the coping measure. While the Brief COPE has been used extensively and been found to predict a variety of outcomes in the context of stressful life events (Meyer et al., 2012), it may not have adequately captured the full depth and breadth of behavioral and cognitive

strategies utilized by individuals following WPV. Cunningham and Baker (2011), for example, report that adolescents may use coping strategies such as taking charge through caretaking of siblings and victimized parents, fantasizing about happier life, lashing out in anger, and causing self-injuries, which were not examined by the Brief COPE.

Furthermore, the retrospective nature of the report of coping behaviors may not have adequately captured the actual thoughts and behaviors utilized during and after WPV. Exposure to family violence can be a very emotional situation, and responses to such situation may be instantaneous and not remembered well. Additionally, although the respondents in the current study were asked to specifically report on coping strategies used in the context of WPV, they might have reported on their ways of coping with general childhood stress, which may not be related to outcomes following WPV.

Coping strategies may have also failed to moderate the relationship between WPV and outcomes because coping was not appropriately assessed for different developmental levels. Certain adaptive coping strategies may be used more effectively in early childhood while others may be more influential in adolescents. Maladaptive strategies that impact emotion regulation abilities in the context of WPV may also differ based on age and developmental level. For example, self-distraction, substance use, and other emotion-focused coping strategies are more prevalent in adolescents while problem focused coping such as direct action and support seeking are preferred by younger children (Hampel & Peterman, 2005; Rossman, 1992). However, these possible interactions between coping styles and age were not examined in the current study.

Age of onset of WPV was also explored as a moderator in the prediction of emotion regulation difficulties. It was hypothesized that higher age of onset would mitigate the impact of WPV on emotion dysregulation. The current data, however, did not support this hypothesis.

The impact of total WPV on emotion regulation was exacerbated, rather than mitigated, by high age of onset of exposure. While the interaction between physical violence exposure and age of onset initially emerged as significant in the prediction of emotion dysregulation, post-hoc probing indicated a lack of meaningful moderation. Age of onset failed to show any moderating effect for the prediction of emotion dysregulation from verbal violence exposure.

Theories on emotional development state that disruption of emotional development because of interpersonal conflicts earlier in life can be more detrimental than that later in life, when most emotion regulation abilities are likely already established (Holodynski & Friedlmeier, 2006). Levendosky and colleagues (2002) posit that WPV in early childhood can have worse outcomes, and a wide variety of research on the impact of WPV in preschool aged children support this notion (Graham-Bermann et al., 2006; McDonald et al., 2007; Paterson et al., 2008). Developmental stage and age at exposure have been found to be important factors in the severity of outcomes following WPV (Fosco et al., 2007; Kitzmann et al., 2003; Wolfe et al., 2003). The current results, however, do not support these previously noted findings.

The discrepancies between previous reports and current findings may be due to a number of factors. First of all, the current study differed from previous ones that have examined developmental differences in that age of onset was analyzed as a continuous scale rather than as developmental stages. Kitzmann et al. (2003) and Wolfe et al. (2003), for example, explored age differences by comparing developmental stages rather than using age as a continuous variable. Perhaps the influence of WPV on emotion regulation differs among individuals based on stages such as preschool-aged, school-aged, and adolescents, and exploration of age itself may have diminished this potential effect.

It should also be noted that studies that report developmental stage differences in outcomes do so based on examination of outcomes in those respective stages. For example, studies included in Wolfe and colleagues' meta-analysis (2003) examined outcomes in preschool age children, school-aged children, etc. rather than assessing outcomes in adulthood based on exposures at these stages. Studies on the impact of age or developmental stage at exposure to violence on long-term outcomes examined in adulthood are lacking. The current study adds to the literature by indicating that the long term impact of exposure to verbal violence may not in fact be associated with the age at which the exposure occurs.

Examination of the impact of total violence exposure on emotion dysregulation did indicate that high age of onset exacerbated this relationship, a finding that contradicts the hypothesis. A possible reason behind this may be that high age of onset means more recent exposure to violence. Individuals who are exposed to high levels of violence in late childhood or adolescence may report higher levels of difficulties as their exposure is more recent, thus allowing less time for the posttraumatic and other negative outcomes related to such exposures to be ameliorated (Classen, Palesh, & Aggarwal, 2005; Wild & Paivio, 2003). As such, these findings have implications towards resilience to adverse outcomes following childhood traumas mentioned above (Mancini & Bonanno, 2010). Although individuals may overall be resilient to sporadic exposure to physical violence among parents in their childhood as shown by the results of the first hypothesis test, such exposures in combination with more frequent verbal violence later on in life might be associated with lingering effects and need to be considered in understanding the dynamic relationship between childhood trauma and later negative outcomes.

In this sample, the mean age of first exposure to WPV was 8.54 years and the mean age of last exposure was 14.70 years indicating that majority of individuals who experienced WPV in

early childhood likely did not do so later on. Indeed, Blumenthal and colleagues (1998) posit that exposure to interparental violence decreases as the children grow older as they are able to leave or intervene. Furthermore, the perpetrating and victimized parents may have separated or divorced as the children got older, thus ceasing or limiting the exposure to violence. As such, individuals who had younger age of onset may not have experienced much WPV in their late childhood, thus allowing for its negative outcomes to subside. It would hence be conceivable that younger age of onset did not exacerbate the impact of childhood exposure on long term, i.e. current, outcomes as predicted.

The moderating role of gender was then explored. Studies have often cited gender differences in exposure to childhood WPV and their numerous outcomes (Roustit et al, 2009; Shen, 2009). However, several studies have also found results on the contrary (Gamez-Guadix et al., 2012; Howell et al., 2010). Given these discrepancies in the literature regarding the role of gender in outcomes following WPV, the current study explored gender as a moderator without a specific hypothesis. Analyses revealed that gender was not a significant moderator for the relationship between any of the WPV types and emotion dysregulation. As such, these findings add to the literature that suggest males and females respond similarly to WPV and do not exhibit significant differences in overall outcomes (Fergusson et al., 2006; Howell et al., 2010; Kitzman et al., 2003). The current results demonstrate that the long term disruption of adaptive emotion regulation abilities following WPV in childhood may not be associated with gender.

Although gender failed to moderate the relationship between WPV and emotion regulation, it should be noted that it may moderate WPV's impact on other outcomes not assessed in the current study. Emotion dysregulation may manifest in males and females differently, with externalizing disorders being more prominent in males and internalizing

disorders being more common in females. In fact, previous studies on gender differences in the context of WPV note that females are more prone to depression and anxiety symptoms while men are more prone to violence and aggression (Gamez-Guadix et al., 2012; Nicholas & Rasmussen, 2006; Roustit et al., 2009; Silvern et al, 1995). Gamez-Guadix and colleagues, for example, posit that gender role socialization promotes emotionality and sensitivity in females and autonomy and assertiveness in males, which serve as mechanisms for the manifestation of maladjustment in the form internalizing behaviors in females and externalizing behaviors in males. Information regarding these different types of difficulties were, however, not obtained in this study but should be explored in future research to explore the full breadth of outcomes that may be influenced by gender.

Some studies that have found gender differences in outcomes following childhood WPV and other traumas have noted that males and females may utilize and be impacted differentially by parental bonds (Barton & Kirtley, 2012; McKinney, Milone, & Renk, 2011), social support (Rueger, Malecki, & Demaray, 2010), and coping strategies (Eschenbeck, Kohlmann, & Lohaus, 2007; Hampel & Petermann, 2005). Hence, gender may have been associated with these different factors in the moderation of relationship between WPV and emotion regulation. These complex relationships between gender and the proposed moderators were, however, beyond the scope of the study and were thus not examined.

4.2 Benefits and Implications

The current study has several benefits that add to the literature on WPV and its outcomes, and the findings have important implications for research and clinical practice directed towards understanding and treatment of a variety of psychological difficulties. Further research implications are also discussed in the next section with regards to the study's limitations.

A major benefit of this study is the thorough measurement of WPV. Previous studies have used different measures for WPV such as a single item (Roustit et al., 2009; Russell et al., 2010) and only a subscale of the CTS (Ferguson & Herwood, 1998; Haj-Yahia et al., 2011; Silvern et al.; 1995) making it difficult to compare and contrast the findings. However, the current study's use of self-report of exposure using the CTS2-CA (Straus, 1999), an empirically supported and widely used measure of intimate violence, provides an extensive assessment of the frequency of a wide range of both verbal and physical violence as witnessed by the respondents which have been neglected in previous research.

The use of the term “witnessing partner violence” (WPV) encompassed exposure to violence on mother figure (mother, step-mother, or father's partner) perpetrated by a father figure (father, step-father, or mother's partner) and vice-versa. This allowed for the study to assess not only violence between mother and father but also between one and their partner. Furthermore, assessment of violence from both parents or parent figures is an important strength of this study, as most studies have focused on the mother's victimization by the father, leaving out a possibly significant portion of violence children may be exposed to- those perpetrated by their mothers (Dehon & Weems, 2010; Levendosky et al., 2011; Russell et al., 2010). Future studies on WPV should use the CTS2-CA or similar extensive measure designed to assess for violence perpetuated by and against both parents and their partners to get a nuanced understanding of their impact on functioning in children.

Another important benefit of the study is the exploration of emotion dysregulation as the primary outcome. While several studies have reported emotional difficulties to be important outcomes following WPV in children (Fosco et al., 2007; Graham-Bermann & Levendosky, 1997), studies examining emotion dysregulation as a long term outcome in adult survivors of

childhood WPV are lacking. The examination of emotion dysregulation in the current study allows for a better understanding of the mechanisms through which WPV can manifest into internalizing and externalizing disorders. Thus, the results from the study provide a trans-diagnostic inspection of outcomes rather than a focus on a particular disorder. Future studies should take the findings from the current study in conjunction with previous studies and explore emotion dysregulation as an outcome as well as a mechanism via which WPV impacts behavioral and emotional disorder.

The findings from this study provide a variety of information about aspects of childhood experiences that impact an individual's functioning while in college. Emotion regulation and their disruptions can affect students' general psychological functioning, academic achievement, and social practices (Gratz & Roemer, 2004). The current study suggests that knowledge of WPV and associated factors can shed much needed light onto the students' emotional abilities. This information can be greatly useful in college counseling practices where students may be referred for emotional difficulties. Given the link between emotion dysregulation and other difficulties including IPV in adulthood (Black et al., 2010) and PTSD (Weiss, Tull, lavender, & Gratz, 2013), it is imperative that college counselors target the students' experiences of WPV and accordingly help them develop appropriate emotion regulation skills to prevent such difficulties or treat already existing ones.

Explorations of various possible constructs that are associated with WPV and emotion dysregulation as moderators also provide a deeper understanding of the nature of the relationship between the two, and add to the research, clinical, and policy implications. First, the study found a complex pattern of associations among WPV, parental bonds, and emotion dysregulation, suggesting that both warmth and control need to be carefully studied, monitored, and considered

in understanding adjustment difficulties following WPV. High and low levels of warmth and control not only interact with WPV in the prediction of WPV, but also explain part of the mechanisms via which WPV can result in poorer outcomes. As such, the study emphasizes the need for appropriate levels of parenting practices and behaviors based on the WPV types and contexts. Future research should thus explore these various complex dynamics in both moderation and mediation models to understand their impact on outcomes better.

The study also suggests that it is important to consider different types of social support systems when examining the influences of WPV. Social support, particularly from family members was found to mitigate the association between verbal violence exposure and emotion dysregulation. As such, this study highlights the important role readily available and reliable source of comfort and guidance can play in outcomes in children living in violent households. Early intervention programs should involve siblings, grandparents, and other close family members who may be able to fulfill parental roles when the parents' ability to do so is compromised. Special care should also be taken to improve the children's relationships with their peers and adults outside the family such as teachers and pastors so that they can benefit from having social support outside of the family.

WPV may impact emotion regulation in college particularly for those who are exposed to such violence later in childhood. Although violence exposure may have immediate and significant impact on children at all ages, as demonstrated by previous studies, their effects may not last in the long term if the exposure begins and ends at an early age. The current study thus adds to the literature on resilience in children exposed to family violence (Mancini & Bonanno, 2010), while also cautioning against the impact later exposure can have on long term outcomes.

As such, another important implication of this study is the need for thorough investigation of WPV and outcomes throughout childhood and adolescence.

Although coping strategies and gender did not emerge as moderators, the findings have implications regarding both in the context of WPV. First, existing coping measures may not adequately capture the types and extent of coping strategies that children and adolescents utilize to deal with WPV. Factor analyses of the coping measure also revealed that some strategies that are adaptive with regards to general stress may in fact be maladaptive in the context of WPV, and vice versa. The current findings thus highlight the need for a more sophisticated assessment tool to adequately understand adaptive and maladaptive coping behaviors associated with WPV. Regarding gender differences, the current study suggests that emotion regulation in males and females may be equally disrupted by WPV. However, gender differences should be examined with other related factors such as parental bonds, coping, and social support in order to understand how these influence outcomes differently for males and females.

4.3 Limitations and Future Directions

The current study is the first to explore the direct relationship between WPV and emotion regulation difficulties in emerging adults over and above the impact of childhood and lifetime traumas. It is also the first to include an extensive array of factors that may influence that relationship as moderators. Despite the important findings of the study and their implications, some limitations should be noted. First, the data for the study were collected from undergraduate students using an online survey and as such, generalization of the findings needs to be made with caution. The current study may not have captured the full extent of emotional difficulties brought on by WPV, as individual who were more negatively impacted are less likely to enter college in the first place (Himelein, 1995). Future studies on the impact of childhood difficulties

on long-term functioning should gather information from a variety of sources including the general population to capture the full extent of WPV and the depth and breadth of outcomes.

As mentioned above, the respondents overall reported low means of physical and verbal violence exposures. Only about a third of the respondents reported having witnessed any physical violence, again likely due to the data being gathered from college population. As such, caution should be taken in generalizing the findings to populations that might have higher degree of exposure. The low means of WPV also resulted in a skewed data, which could have compromised the statistical power of the analyses utilized. Predictions and explanations of findings are also based on what are expected with a normal distribution of exposure so that inferences are made about high and low levels of WPV, outcome, and moderator variables. Caution should thus be taken with interpretation of “high exposure” in the current sample versus what might be present in the general population or a clinical sample.

Another limitation of the study is the use of retrospective online survey. There is a possibility that respondents misremembered the extent or types of WPV they were exposed to, the parental bonds, coping strategies used, perceived social support, and age of onset of WPV. A thorough longitudinal investigation of these matters with data collection at various time points from early childhood to adulthood may shed further light into the nature of their relationships. Future studies may also benefit from in-session assessment so as to ensure that the measures were being filled out appropriately. Additionally, semi-structured or open-ended interviews may provide more qualitative details on the types of WPV, their appraisal, and a variety of contextual factors that the measures used in the current study may not have adequately captured. Allowing the respondents to individually share their experiences with WPV may provide a deeper knowledge of the course of its consequences and help direct the path of future research in this

field. Furthermore, obtaining information from multiple sources could also enhance the quality of the data and provide additional perspective on the violence, related constructs, and their outcomes.

Furthermore, memory of violence exposure may have also been related to experiences of parenting and coping strategies used to deal with such exposures. For example, it is possible that the individuals who grew up in families with high control and low warmth used dissociation, denial, and suppression of the ongoing violence to cope with such experiences, which would then be associated with low reports of WPV. However, the intricacies of the relationship among violence exposure, parenting, coping, and memory of such events were not examined and should be studied in longitudinal studies to better understand recollection of traumatic events in context of WPV.

Although the current study was the first to examine emotion dysregulation as the primary outcome of WPV in childhood, this construct has been criticized for being prone to bias. Tull, Bornovalova, Patterson, Hopko, and Lejuez (2008) note that individuals with high levels of emotion dysregulation may not be able to accurately report on their negative emotional experiences. A combination of psychophysiological, behavioral, observational, and self-report measures from the respondents and their close relations can provide a better assessment of emotion dysregulation (Weiss et al., 2013). Future research would thus benefit from such a multi-method, multi-informant approach.

Another limitation of the study is its use of measures that were not specifically designed to assess psychological factors in the context of WPV. While the parental warmth and control, coping, and social support measures utilized in the study have been used extensively in previous trauma research, they may not have adequately captured the nature and the extent of impact

WPV has on the constructs they are measuring. For example, as mentioned above, Brief COPE did not assess certain types of coping behaviors (e.g. taking charge of family, self-harm, attention-seeking, etc.) that have been noted in qualitative research in adolescents living in violence households (Cunningham & Baker, 2011). It is important that appropriate measure that can fully gauge the variety of adaptive and maladaptive coping behaviors be developed. Similarly, a measure of social support that considers the variety and types of support individuals may seek and get following WPV is lacking. Development and use of such a measure would be crucial in future research exploring these relationships.

As mentioned above, perceptions of social support and use of coping strategies may differ significantly based on developmental level and gender. Future research should consider these developmental and gender differences in factors that are influenced by WPV and may in turn impact the outcome. Three way interactions and structural modeling could be used as statistical tools to examine these complex and dynamic relationships.

Furthermore, a variety of family situations and living conditions have been noted to be significantly related to outcomes in children and adults following WPV. Roustit and colleagues (2009), for example, note that family size, parents' substance and alcohol use, parental depression, and divorce or separation are some of the childhood stressors that are related to WPV and impact functioning. These factors, however, were not assessed in the current study. Future studies should include these and other family- and social-level stressors to get an in-depth understanding of factors that influence short-term and long-term functioning in the context of WPV.

4.4 Conclusion

The current study sought to explore the relationship between childhood WPV and emotion dysregulation in early adulthood, and how parental bonds, social support, coping

strategies, age of onset, and gender influence that relationship. The results suggest that verbal violence exposure is a significant predictor of long term emotion dysregulation. High parental warmth and older age of onset exacerbated the association between total WPV and physical violence exposure and the outcome, while high parental control mitigated that relationship. High parental warmth also exacerbated the association between verbal violence and emotion dysregulation while social support, particularly from family members, mitigated the relationship. Adaptive and maladaptive coping strategies and gender failed to emerge as significant moderators. Further research with thorough and nuanced explorations of these constructs might shed light into the complex relationships they hold among each other.

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Table 1.

Sample size of Demographic Variables

Variable	N	% of Sample
Gender		
Male	277	26.6
Female	763	73.4
Ethnicity		
Caucasian	839	80.7
African American	51	4.9
Asian	145	13.9
Hispanic	43	4.1
Native American	8	.8
Other	17	1.6
Year in School		
Freshman	394	37.9
Sophomore	259	24.9
Junior	220	21.2
Senior	167	16.1

Table 2.

Means, Standard Deviations, Range, and Internal Consistencies

Variable	Mean	SD	Range	Alpha
Age	19.65	1.55	18-34	-
SES*	0.00	.68	-2.01-.96	-
CTS2-CA				
Total WPV	68.87	28.60	41-280	.942
Verbal Violence	40.36	19.19	16-112	.915
Physical Violence	28.51	13.11	24-168	.954
SLESQ Total	1.23	1.63	0-10	.642
CTQ-SF Total	34.87	11.38	25-110	.901
PBI				
Warmth	55.57	13.85	0-72	.941
Control	25.86	12.37	0-75	.893
Brief COPE				
Adaptive	35.38	10.59	16-64	.909
Maladaptive	21.43	6.36	12-44	.848
MSPSS Total	59.51	16.44	12-84	.935
Age at Onset of WPV	8.54	3.56	0-19	-
DERS Total	83.45	23.41	37-170	.939

*z-score

Table 3.

Zero-order Correlations among variables

Variables	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.
1. Age	-														
2. Gender	-.008	-													
3. SES	-.157**	.054	-												
4. Total WPV	.037	.057	-.156**	-											
5. Verbal Violence	.034	.083**	-.142**	.924**	-										
6. Physical Violence	.032	.004	-.133**	.829**	.554**	-									
7. SLESQ Total	.161**	.015	-.064*	.324**	.324**	.232**	-								
8. CTQ Total	.080*	.009	-.179**	.538**	.486**	.463**	.477**	-							
9. PBI-Warmth	-.067*	.023	.199**	-.444**	-.430**	-.339**	-.333**	-.730**	-						
10. PBI-Control	.019	.052	-.127**	.291**	.275**	.232**	.180**	.393**	-.485**	-					
11. Total So Su	-.072*	.085**	.097**	-.229**	-.238**	-.152**	-.158**	-.425**	.486**	-.252**	-				
12. Adap Coping	-.012	.024	-.008	.065*	.059	.056	.090**	-.002	.029	.020	.270**	-			
13. Malad Coping	.036	.053	-.043	.381**	.407**	.235**	.380**	.475**	-.409**	.242**	-.148**	.503**	-		
14. Age of Onset	-.080*	.034	.071*	-.318**	-.349**	-.188**	-.245**	-.274**	.235**	-.160**	.184**	-.040	-.241**	-	
15. DERS Total	-.031	.061*	-.054	.226**	.248**	.130**	.179**	.390**	-.428**	.318**	-.317**	-.056	.420**	-.122**	-

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

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

Table 4.

Frequencies of the Types of Perpetrators of WPV

WPV perpetrator	Mother as the Victim		Father as the Victim	
	N	%	N	%
Biological Parent	769	73.9	839	80.7
Adoptive Parent	11	1.1	6	.6
Step Parent	66	6.3	31	3
Boyfriend/Girlfriend	20	1.9	9	.9
Same Sex Partner	2	.2	1	.1
None	219	21.1	184	17.7

Table 5.

Frequency of WPV Types

Type of Violence towards Mother	Never	Once	Twice	3-5	6-10	11-20	> 20
Swore	355	120	91	154	78	65	177
Calling fat or ugly	867	38	32	34	20	16	33
Shouted or yelled	156	111	108	196	134	79	256
Threatened to Hit	841	43	35	54	26	15	26
Say something to Spite	376	116	75	159	97	58	159
Stomped out of room	268	126	110	192	125	84	135
Destroyed belongings	846	54	44	43	17	11	25
Accused of being a lousy lover	897	33	24	31	16	12	27
Threw something	905	53	24	26	13	10	9
Twisted arm or hair	943	38	22	17	6	6	8
Pushed or shoved	877	53	43	40	7	7	13
Used a knife or gun	1006	13	9	5	3	2	2
Punched or hit	964	34	13	14	4	5	6
Chocked	986	21	12	9	5	2	5
Slammed against a wall	945	45	17	18	5	3	7
Beat up	991	13	11	16	2	2	5
Grabbed	857	68	41	36	18	7	13
Slapped	967	33	12	16	3	2	7
Burned or scalded	1007	10	7	8	4	2	2
Kicked	1004	9	10	7	4	2	4
Type of Violence towards Father	Never	Once	Twice	3-5	6-10	11-20	>20
Swore	328	107	115	157	84	71	178
Calling fat or ugly	875	35	32	35	15	13	35
Shouted or yelled	197	91	102	174	117	87	272
Threatened to Hit	861	55	25	33	18	14	34
Say something to Spite	453	69	88	134	81	65	150
Stomped out of room	374	106	109	167	93	68	123
Destroyed belongings	925	33	27	20	6	8	21
Accused of being a lousy lover	884	40	31	38	11	7	29
Threw something	882	54	28	36	16	8	16
Twisted arm or hair	985	16	10	17	6	3	3
Pushed or shoved	894	29	42	32	19	10	14
Used a knife or gun	1010	13	5	6	2	1	3
Punched or hit	963	18	24	15	5	3	12
Chocked	1019	6	9	4	0	0	2
Slammed against a wall	1004	8	7	8	5	5	3
Beat up	1015	5	7	3	4	2	4
Grabbed	943	23	25	24	10	5	10
Slapped	938	31	23	28	9	2	9
Burned or scalded	1017	9	5	3	3	0	3
Kicked	999	14	11	8	2	3	3

Table 6.

Summary of Hierarchical Regression Analyses of Total WPV as a Predictor of Emotion Dysregulation

Variable	$R^{2\dagger}$	$\Delta R^{2\dagger}$	F^\dagger	p^\dagger	β	p
Step 1	.156	.156	47.846	.000		
Age					-.062	.034
SES					.007	.816
SLESQ					.000	.999
CTQ					.396	.000
Step 2	.159	.003	39.058	.000		
Age					-.061	.037
SES					.011	.697
SLESQ					-.007	.844
CTQ					.366	.000
Total WPV					.063	.063

[†] = values were obtained for the entire model

Table 7.

Summary of Hierarchical Regression Analyses of Physical Violence Exposure as a Predictor of Emotion Dysregulation

Variable	R^2 [†]	ΔR^2 [†]	F [†]	p [†]	β	p
Step 1	.156	.156	47.846	.000		
Age					-.062	.034
SES					.007	.816
SLESQ					.000	.999
CTQ					.396	.000
Step 2	.159	.003	39.212	.000		
Age					-.063	.032
SES					.001	.961
SLESQ					.002	.946
CTQ					.429	.000
Physical Violence					-.068	.043

[†] = values were obtained for the entire model

Table 8.

Summary of Hierarchical Regression Analyses of Verbal Violence Exposure as a Predictor of Emotion Dysregulation

Variable	R^2 [†]	ΔR^2 [†]	F [†]	p [†]	β	p
Step 1	.156	.156	47.846	.000		
Age					-.062	.034
SES					.007	.816
SLESQ					.000	.999
CTQ					.396	.000
Step 2	.164	.008	40.512	.000		
Age					-.061	.037
SES					.012	.670
SLESQ					-.012	.719
CTQ					.357	.000
Verbal Violence					.100	.002

[†] = values were obtained for the entire model

Table 9.

Summary of Hierarchical Regression Analyses of Parental Warmth as a Moderator in the Relationship between Total WPV and Emotion Dysregulation

Variable	$R^{2\dagger}$	$\Delta R^{2\dagger}$	F^\dagger	p^\dagger	β	p
Step 1	.156	.156	47.846	.000		
Age					-.062	.034
SES					.007	.816
SLESQ					.000	.999
CTQ					.396	.000
Step 2	.159	.003	39.058	.000		
Age					-.061	.037
SES					.011	.697
SLESQ					-.007	.844
CTQ					.366	.000
Total WPV					.063	.063
Step 3	.202	.043	43.511	.000		
Age					-.062	.030
SES					.031	.288
SLESQ					.002	.944
CTQ					.157	.001
Total WPV					.034	.316
Parental Warmth					-.307	.000
Step 4	.210	.008	39.201	.000		
Age					-.066	.020
SES					.037	.199
SLESQ					.005	.884
CTQ					.196	.000
Total WPV					.052	.123
Parental Warmth					-1.373	.000
WPVxPW					1.107	.001

[†] = values were obtained for the entire model

Table 10.

Summary of Hierarchical Regression Analyses of Parental Warmth as a Moderator in the Relationship between Physical Violence Exposure and Emotion Dysregulation

Variable	R^2 [†]	ΔR^2 [†]	F [†]	p [†]	β	p
Step 1	.156	.156	47.846	.000		
Age					-.062	.034
SES					.007	.816
SLESQ					.000	.999
CTQ					.396	.000
Step 2	.159	.003	39.212	.000		
Age					-.063	.032
SES					.001	.961
SLESQ					.002	.946
CTQ					.429	.000
Physical Violence					-.068	.043
Step 3	.205	.045	44.288	.000		
Age					-.063	.026
SES					.023	.425
SLESQ					.008	.799
CTQ					.203	.000
Physical Violence					-.071	.030
Parental Warmth					-.313	.000
Step 4	.214	.009	40.149	.000		
Age					-.069	.016
SES					.030	.297
SLESQ					.007	.826
CTQ					.232	.000
Physical Violence					.016	.687
Parental Warmth					-1.470	.000
PVxPW					1.217	.000

[†] = values were obtained for the entire model

Table 11.

Summary of Hierarchical Regression Analyses of Parental Warmth as a Moderator in the Relationship between Verbal Violence Exposure and Emotion Dysregulation

Variable	R^2 [†]	ΔR^2 [†]	F [†]	p [†]	β	p
Step 1	.156	.156	47.846	.000		
Age					-.062	.034
SES					.007	.816
SLESQ					.000	.999
CTQ					.396	.000
Step 2	.164	.008	40.512	.000		
Age					-.061	.037
SES					.012	.670
SLESQ					-.012	.719
CTQ					.357	.000
Verbal Violence					.100	.002
Step 3	.204	.040	44.204	.000		
Age					-.062	.031
SES					.031	.274
SLESQ					-.002	.943
CTQ					.153	.001
Verbal Violence					.066	.038
Parental Warmth					-.299	.000
Step 4	.208	.003	38.634	.000		
Age					-.064	.024
SES					.036	.216
SLESQ					.001	.971
CTQ					.173	.000
Verbal Violence					.064	.044
Parental Warmth					-.760	.001
VVxPW					.479	.037

[†] = values were obtained for the entire model

Table 12.

Summary of Hierarchical Regression Analyses of Parental Control as a Moderator in the Relationship between Total WPV and Emotion Dysregulation

Variable	$R^{2\dagger}$	$\Delta R^{2\dagger}$	F^\dagger	p^\dagger	β	p
Step 1	.156	.156	47.846	.000		
Age					-.062	.034
SES					.007	.816
SLESQ					.000	.999
CTQ					.396	.000
Step 2	.159	.003	39.058	.000		
Age					-.061	.037
SES					.011	.697
SLESQ					-.007	.844
CTQ					.366	.000
Total WPV					.063	.063
Step 3	.189	.030	40.164	.000		
Age					-.057	.046
SES					.021	.459
SLESQ					-.003	.918
CTQ					.303	.000
Total WPV					.041	.228
Parental Control					.191	.000
Step 4	.198	.009	36.325	.000		
Age					-.058	.043
SES					.027	.347
SLESQ					-.008	.814
CTQ					.318	.000
Total WPV					.056	.099
Parental Control					1.252	.000
WPVxPC					-1.074	.001

[†] = values were obtained for the entire model

Table 13.

Summary of Hierarchical Regression Analyses of Parental Control as a Moderator in the Relationship between Physical Violence Exposure and Emotion Dysregulation

Variable	R^2 [†]	ΔR^2 [†]	F [†]	p [†]	β	p
Step 1	.156	.156	47.846	.000		
Age					-.062	.034
SES					.007	.816
SLESQ					.000	.999
CTQ					.396	.000
Step 2	.159	.003	39.212	.000		
Age					-.063	.032
SES					.001	.961
SLESQ					.002	.946
CTQ					.429	.000
Physical Violence					-.068	.043
Step 3	.193	.033	41.117	.000		
Age					-.059	.040
SES					.013	.664
SLESQ					.004	.912
CTQ					.358	.000
Physical Violence					-.081	.014
Parental Control					.200	.000
Step 4	.207	.014	38.369	.000		
Age					-.062	.029
SES					.021	.457
SLESQ					-.006	.846
CTQ					.368	.000
Physical Violence					-.007	.850
Parental Control					1.521	.000
PVxPC					-1.348	.000

[†] = values were obtained for the entire model

Table 14.

Summary of Hierarchical Regression Analyses of Parental Control as a Moderator in the Relationship between Verbal Violence Exposure and Emotion Dysregulation

Variable	R^2 [†]	ΔR^2 [†]	F [†]	p [†]	β	p
Step 1	.156	.156	47.846	.000		
Age					-.062	.034
SES					.007	.816
SLESQ					.000	.999
CTQ					.396	.000
Step 2	.164	.008	40.512	.000		
Age					-.061	.037
SES					.012	.670
SLESQ					-.012	.719
CTQ					.357	.000
Verbal Violence					.100	.002
Step 3	.193	.029	41.145	.000		
Age					-.057	.046
SES					.023	.430
SLESQ					-.009	.790
CTQ					.293	.000
Verbal Violence					.080	.013
Parental Control					.187	.000
Step 4	.196	.003	35.907	.000		
Age					-.057	.047
SES					.026	.373
SLESQ					-.009	.774
CTQ					.300	.000
Verbal Violence					.080	.012
Parental Control					.610	.005
VVxPC					-.429	.051

[†] = values were obtained for the entire model

Table 15.

Summary of Hierarchical Regression Analyses of Total Social Support as a Moderator in the Relationship between Total WPV and Emotion Dysregulation

Variable	$R^{2\dagger}$	$\Delta R^{2\dagger}$	F^\dagger	p^\dagger	β	p
Step 1	.156	.156	47.846	.000		
Age					-.062	.034
SES					.007	.816
SLESQ					.000	.999
CTQ					.396	.000
Step 2	.159	.003	39.058	.000		
Age					-.061	.037
SES					.011	.697
SLESQ					-.007	.844
CTQ					.366	.000
Total WPV					.063	.063
Step 3	.188	.029	39.734	.000		
Age					-.069	.016
SES					.014	.639
SLESQ					.006	.847
CTQ					.284	.000
Total WPV					.058	.086
Total Social Support					-.188	.000
Step 4	.189	.001	34.328	.000		
Age					-.068	.018
SES					.012	.690
SLESQ					.006	.852
CTQ					.280	.000
Total WPV					.053	.117
Total Social Support					.244	.460
WPVxSS					-.436	.189

[†] = values were obtained for the entire model

Table 16.

Summary of Hierarchical Regression Analyses of Total Social Support as a Moderator in the Relationship between Physical Violence Exposure and Emotion Dysregulation

Variable	R^2 [†]	ΔR^2 [†]	F [†]	p [†]	β	p
Step 1	.156	.156	47.846	.000		
Age					-.062	.034
SES					.007	.816
SLESQ					.000	.999
CTQ					.396	.000
Step 2	.159	.003	39.212	.000		
Age					-.063	.032
SES					.001	.961
SLESQ					.002	.946
CTQ					.429	.000
Physical Violence					-.068	.043
Step 3	.187	.028	39.727	.000		
Age					-.071	.014
SES					.005	.867
SLESQ					.014	.667
CTQ					.339	.000
Physical Violence					-.056	.088
Total Social Support					-.186	.000
Step 4	.188	.000	34.032	.000		
Age					-.071	.014
SES					.004	.882
SLESQ					.014	.663
CTQ					.340	.000
Physical Violence					-.060	.092
Total Social Support					-.093	.785
PVxSS					-.094	.783

[†] = values were obtained for the entire model

Table 17.

Summary of Hierarchical Regression Analyses of Total Social Support as a Moderator in the Relationship between Verbal Violence Exposure and Emotion Dysregulation

Variable	R^2 [†]	ΔR^2 [†]	F [†]	p [†]	β	p
Step 1	.156	.156	47.846	.000		
Age					-.062	.034
SES					.007	.816
SLESQ					.000	.999
CTQ					.396	.000
Step 2	.164	.008	40.512	.000		
Age					-.061	.037
SES					.012	.670
SLESQ					-.012	.719
CTQ					.357	.000
Verbal Violence					.100	.002
Step 3	.191	.027	40.727	.000		
Age					-.069	.016
SES					.014	.619
SLESQ					.001	.965
CTQ					.278	.000
Verbal Violence					.089	.005
Total Social Support					-.184	.000
Step 4	.194	.003	35.555	.000		
Age					-.068	.019
SES					.012	.678
SLESQ					.000	.990
CTQ					.271	.000
Verbal Violence					.088	.006
Total Social Support					.224	.287
VVxSS					-.415	.050

[†] = values were obtained for the entire model

Table 18.

Summary of Hierarchical Regression Analyses of Adaptive Coping as a Moderator in the Relationship between Total WPV and Emotion Dysregulation

Variable	R^2 [†]	ΔR^2 [†]	F [†]	p [†]	β	p
Step 1	.156	.156	47.846	.000		
Age					-.062	.034
SES					.007	.816
SLESQ					.000	.999
CTQ					.396	.000
Step 2	.159	.003	39.058	.000		
Age					-.061	.037
SES					.011	.697
SLESQ					-.007	.844
CTQ					.366	.000
Total WPV					.063	.063
Step 3	.162	.004	33.402	.000		
Age					-.063	.032
SES					.011	.713
SLESQ					.001	.988
CTQ					.360	.000
Total WPV					.068	.047
Adaptive Coping					-.061	.035
Step 4	.165	.003	29.195	.000		
Age					-.063	.031
SES					.011	.721
SLESQ					.002	.957
CTQ					.362	.000
Total WPV					.073	.033
Adaptive Coping					.653	.089
WPV _x AC					-.716	.063

[†] = values were obtained for the entire model

Table 19.

Summary of Hierarchical Regression Analyses of Adaptive Coping as a Moderator in the Relationship between Physical Violence Exposure and Emotion Dysregulation

Variable	R^2 [†]	ΔR^2 [†]	F [†]	p [†]	β	p
Step 1	.156	.156	47.846	.000		
Age					-.062	.034
SES					.007	.816
SLESQ					.000	.999
CTQ					.396	.000
Step 2	.159	.003	39.212	.000		
Age					-.063	.032
SES					.001	.961
SLESQ					.002	.946
CTQ					.429	.000
Physical Violence					-.068	.043
Step 3	.162	.003	33.334	.000		
Age					-.064	.028
SES					.001	.975
SLESQ					.009	.793
CTQ					.424	.000
Physical Violence					-.063	.058
Adaptive Coping					-.054	.063
Step 4	.162	.000	28.591	.000		
Age					-.065	.027
SES					.001	.980
SLESQ					.009	.782
CTQ					.424	.000
Physical Violence					-.060	.076
Adaptive Coping					.171	.690
PV \times AC					-.225	.600

[†] = values were obtained for the entire model

Table 20.

Summary of Hierarchical Regression Analyses of Adaptive Coping as a Moderator in the Relationship between Verbal Violence Exposure and Emotion Dysregulation

Variable	R^2 [†]	ΔR^2 [†]	F [†]	p [†]	β	p
Step 1	.156	.156	47.846	.000		
Age					-.062	.034
SES					.007	.816
SLESQ					.000	.999
CTQ					.396	.000
Step 2	.164	.008	40.512	.000		
Age					-.061	.037
SES					.012	.670
SLESQ					-.012	.719
CTQ					.357	.000
Verbal Violence					.100	.002
Step 3	.167	.004	34.640	.000		
Age					-.063	.032
SES					.012	.690
SLESQ					-.005	.888
CTQ					.352	.000
Verbal Violence					.103	.001
Adaptive Coping					-.061	.033
Step 4	.171	.003	30.307	.000		
Age					-.062	.032
SES					.012	.690
SLESQ					-.004	.913
CTQ					.354	.000
Verbal Violence					.106	.001
Adaptive Coping					.374	.099
VVxAC					-.439	.053

[†] = values were obtained for the entire model

Table 21.

Summary of Hierarchical Regression Analyses of Maladaptive Coping as a Moderator in the Relationship between Total WPV and Emotion Dysregulation

Variable	$R^{2\dagger}$	$\Delta R^{2\dagger}$	F^\dagger	p^\dagger	β	p
Step 1	.156	.156	47.846	.000		
Age					-.062	.034
SES					.007	.816
SLESQ					.000	.999
CTQ					.396	.000
Step 2	.159	.003	39.058	.000		
Age					-.061	.037
SES					.011	.697
SLESQ					-.007	.844
CTQ					.366	.000
Total WPV					.063	.063
Step 3	.230	.071	51.481	.000		
Age					-.055	.050
SES					-.004	.884
SLESQ					-.064	.047
CTQ					.273	.000
Total WPV					.003	.934
Maladaptive Coping					.316	.000
Step 4	.230	.000	44.091	.000		
Age					-.055	.049
SES					-.004	.894
SLESQ					-.064	.048
CTQ					.274	.000
Total WPV					.004	.913
Maladaptive Coping					.376	.237
WPVxMC					-.062	.848

[†] = values were obtained for the entire model

Table 22.

Summary of Hierarchical Regression Analyses of Maladaptive Coping as a Moderator in the Relationship between Physical Violence Exposure and Emotion Dysregulation

Variable	R^2 [†]	ΔR^2 [†]	F [†]	p [†]	β	p
Step 1	.156	.156	47.846	.000		
Age					-.062	.034
SES					.007	.816
SLESQ					.000	.999
CTQ					.396	.000
Step 2	.159	.003	39.212	.000		
Age					-.063	.032
SES					.001	.961
SLESQ					.002	.946
CTQ					.429	.000
Physical Violence					-.068	.043
Step 3	.235	.076	52.884	.000		
Age					-.056	.045
SES					-.011	.697
SLESQ					-.062	.054
CTQ					.312	.000
Physical Violence					-.081	.011
Maladaptive Coping					.320	.000
Step 4	.236	.001	45.494	.000		
Age					-.058	.039
SES					-.009	.751
SLESQ					-.061	.058
CTQ					.315	.000
Physical Violence					-.066	.061
Maladaptive Coping					.634	.034
PVxMC					-.322	.291

[†] = values were obtained for the entire model

Table 23.

Summary of Hierarchical Regression Analyses of Maladaptive Coping as a Moderator in the Relationship between Verbal Violence Exposure and Emotion Dysregulation

Variable	R^2 [†]	ΔR^2 [†]	F [†]	p [†]	β	p
Step 1	.156	.156	47.846	.000		
Age					-.062	.034
SES					.007	.816
SLESQ					.000	.999
CTQ					.396	.000
Step 2	.164	.008	40.512	.000		
Age					-.061	.037
SES					.012	.670
SLESQ					-.012	.719
CTQ					.357	.000
Verbal Violence					.100	.002
Step 3	.231	.067	51.764	.000		
Age					-.055	.050
SES					-.002	.943
SLESQ					-.066	.039
CTQ					.263	.000
Verbal Violence					.036	.252
Maladaptive Coping					.308	.000
Step 4	.231	.000	44.387	.000		
Age					-.055	.051
SES					-.003	.920
SLESQ					-.067	.037
CTQ					.259	.000
Verbal Violence					.036	.257
Maladaptive Coping					.188	.380
VVxMC					.124	.569

[†] = values were obtained for the entire model

Table 24.

Summary of Hierarchical Regression Analyses of Age of Onset as a Moderator in the Relationship between Total WPV and Emotion Dysregulation

Variable	R^2 [†]	ΔR^2 [†]	F [†]	p [†]	β	p
Step 1	.147	.147	37.749	.000		
Age					-.083	.010
SES					.006	.848
SLESQ					-.006	.880
CTQ					.384	.000
Step 2	.149	.002	30.595	.000		
Age					-.081	.011
SES					.010	.755
SLESQ					-.010	.787
CTQ					.360	.000
Total WPV					.050	.176
Step 3	.149	.000	25.522	.000		
Age					-.082	.011
SES					.010	.757
SLESQ					-.012	.747
CTQ					.359	.000
Total WPV					.045	.239
Age of Onset					-.018	.595
Step 4	.153	.004	22.568	.000		
Age					-.081	.012
SES					.012	.712
SLESQ					-.010	.788
CTQ					.365	.000
Total WPV					.056	.148
Age of Onset					-.822	.036
WPV _x AO					.812	.039

[†] = values were obtained for the entire model

Table 25.

Summary of Hierarchical Regression Analyses of Age of Onset as a Moderator in the Relationship between Physical Violence Exposure and Emotion Dysregulation

Variable	R^2 [†]	ΔR^2 [†]	F [†]	p [†]	β	p
Step 1	.147	.147	37.749	.000		
Age					-.083	.010
SES					.006	.848
SLESQ					-.006	.880
CTQ					.384	.000
Step 2	.150	.003	31.003	.000		
Age					-.084	.009
SES					.000	.989
SLESQ					-.002	.955
CTQ					.415	.000
Physical Violence					-.068	.059
Step 3	.151	.001	26.011	.000		
Age					-.085	.008
SES					.000	.997
SLESQ					-.006	.860
CTQ					.410	.000
Physical Violence					-.072	.049
Age of Onset					-.034	.307
Step 4	.155	.004	22.975	.000		
Age					-.083	.009
SES					.003	.926
SLESQ					-.001	.969
CTQ					.407	.000
Physical Violence					-.032	.437
Age of Onset					-.890	.034
PV \times AO					.869	.041

[†] = values were obtained for the entire model

Table 26.

Summary of Hierarchical Regression Analyses of Age of Onset as a Moderator in the Relationship between Verbal Violence Exposure and Emotion Dysregulation

Variable	R^2 [†]	ΔR^2 [†]	F [†]	p [†]	β	p
Step 1	.147	.147	37.749	.000		
Age					-.083	.010
SES					.006	.848
SLESQ					-.006	.880
CTQ					.384	.000
Step 2	.153	.006	31.602	.000		
Age					-.080	.013
SES					.011	.736
SLESQ					-.013	.717
CTQ					.349	.000
Verbal Violence					.087	.013
Step 3	.153	.000	26.312	.000		
Age					-.080	.012
SES					.011	.736
SLESQ					-.014	.704
CTQ					.348	.000
Verbal Violence					.085	.020
Age of Onset					-.006	.855
Step 4	.155	.002	22.880	.000		
Age					-.079	.013
SES					.012	.716
SLESQ					-.014	.707
CTQ					.354	.000
Verbal Violence					.084	.022
Age of Onset					-.365	.145
VVxAO					.363	.148

[†] = values were obtained for the entire model

Table 27.

Summary of Hierarchical Regression Analyses of Gender as a Moderator in the Relationship between Total WPV and Emotion Dysregulation

Variable	$R^{2\dagger}$	$\Delta R^{2\dagger}$	F^\dagger	p^\dagger	β	p
Step 1	.156	.156	47.846	.000		
Age					-.062	.034
SES					.007	.816
SLESQ					.000	.999
CTQ					.396	.000
Step 2	.159	.003	39.058	.000		
Age					-.061	.037
SES					.011	.697
SLESQ					-.007	.844
CTQ					.366	.000
Total WPV					.063	.063
Step 3	.162	.003	33.209	.000		
Age					-.061	.037
SES					.008	.784
SLESQ					-.007	.838
CTQ					.367	.000
Total WPV					.059	.084
Gender					.053	.062
Step 4	.163	.001	28.673	.000		
Age					-.060	.040
SES					.009	.752
SLESQ					-.007	.820
CTQ					.365	.000
Total WPV					.000	.994
Gender					-.368	.306
WPVxGender					.431	.240

[†] = values were obtained for the entire model

Table 28.

Summary of Hierarchical Regression Analyses of Gender as a Moderator in the Relationship between Physical Violence Exposure and Emotion Dysregulation

Variable	R^2 [†]	ΔR^2 [†]	F [†]	p [†]	β	p
Step 1	.156	.156	47.846	.000		
Age					-.062	.034
SES					.007	.816
SLESQ					.000	.999
CTQ					.396	.000
Step 2	.159	.003	39.212	.000		
Age					-.063	.032
SES					.001	.961
SLESQ					.002	.946
CTQ					.429	.000
Physical Violence					-.068	.043
Step 3	.163	.003	33.439	.000		
Age					-.063	.032
SES					-.002	.949
SLESQ					.001	.964
CTQ					.428	.000
Physical Violence					-.068	.042
Gender					.057	.046
Step 4	.163	.000	28.647	.000		
Age					-.063	.032
SES					-.002	.952
SLESQ					.001	.975
CTQ					.429	.000
Physical Violence					-.081	.166
Gender					-.034	.920
PVx Gender					.092	.787

[†] = values were obtained for the entire model

Table 29.

Summary of Hierarchical Regression Analyses of Gender as a Moderator in the Relationship between Verbal Violence Exposure and Emotion Dysregulation

Variable	R^2 [†]	ΔR^2 [†]	F [†]	p [†]	β	p
Step 1	.156	.156	47.846	.000		
Age					-.062	.034
SES					.007	.816
SLESQ					.000	.999
CTQ					.396	.000
Step 2	.164	.008	40.512	.000		
Age					-.061	.037
SES					.012	.670
SLESQ					-.012	.719
CTQ					.357	.000
Verbal Violence					.100	.002
Step 3	.166	.002	34.336	.000		
Age					-.061	.037
SES					.009	.750
SLESQ					-.012	.717
CTQ					.358	.000
Verbal Violence					.095	.003
Gender					.050	.081
Step 4	.168	.002	29.763	.000		
Age					-.059	.043
SES					.011	.705
SLESQ					-.012	.708
CTQ					.354	.000
Verbal Violence					.024	.686
Gender					-.282	.222
VVx Gender					.347	.147

[†] = values were obtained for the entire model

Table 30.

Summary of Hierarchical Regression Analyses of Maternal Warmth as a Moderator in the Relationship between Total, Physical, and Verbal WPV and Emotion Dysregulation

Variable	R^2 [†]	ΔR^2 [†]	F [†]	p [†]	β	p
Total WPV	.200	.019	36.915	.000		
Age					-.069	.017
SES					.034	.244
SLESQ					.006	.856
CTQ					.238	.000
Total WPV					.085	.011
Maternal Warmth					-1.746	.000
WPVxMtW					1.565	.000
Physical Violence	.199	.018	36.564	.000		
Age					-.071	.013
SES					.023	.427
SLESQ					.011	.729
CTQ					.288	.000
Physical Violence					.020	.580
Maternal Warmth					-1.518	.000
PVxMtW					1.354	.000
Verbal Violence	.197	.011	36.057	.000		
Age					-.067	.020
SES					.032	.269
SLESQ					.002	.961
CTQ					.220	.000
Verbal Violence					.097	.002
Maternal Warmth					-1.036	.000
VVxMtW					.841	.000

[†] = values were obtained for the entire model

*only the final step is presented for each model

Table 31.

Summary of Hierarchical Regression Analyses of Paternal Warmth as a Moderator in the Relationship between Total, Physical, and Verbal WPV and Emotion Dysregulation

Variable	$R^{2\dagger}$	$\Delta R^{2\dagger}$	F^\dagger	p^\dagger	β	p
Total WPV	.191	.006	34.736	.000		
Age					-.064	.027
SES					.027	.351
SLESQ					-.002	.961
CTQ					.289	.000
Total WPV					.045	.190
Paternal Warmth					-1.149	.001
WPVxPtW					.971	.004
Physical Violence	.187	.004	35.114	.000		
Age					-.064	.026
SES					.018	.535
SLESQ					.001	.976
CTQ					.326	.000
Physical Violence					-.027	.480
Paternal Warmth					-.971	.003
PVxPtW					.788	.017
Verbal Violence	.190	.003	34.628	.000		
Age					-.062	.031
SES					.027	.355
SLESQ					-.005	.883
CTQ					.278	.000
Verbal Violence					.063	.052
Maternal Warmth					-.667	.005
VVxPtW					.488	.041

† = values were obtained for the entire model

*only the final step is presented for each model

Table 32.

Summary of Hierarchical Regression Analyses of Maternal Control as a Moderator in the Relationship between Total, Physical, and Verbal WPV and Emotion Dysregulation

Variable	$R^{2\dagger}$	$\Delta R^{2\dagger}$	F^\dagger	p^\dagger	β	p
Total WPV	.184	.005	33.319	.000		
Age					-.054	.060
SES					.026	.377
SLESQ					-.007	.827
CTQ					.327	.000
Total WPV					.059	.078
Maternal Control					1.012	.003
WPVxMtC					-.865	.011
Physical Violence	.187	.007	33.809	.000		
Age					-.058	.043
SES					.017	.555
SLESQ					.000	.996
CTQ					.383	.000
Physical Violence					-.036	.285
Maternal Control					1.094	.001
PVxMtC					-.951	.004
Verbal Violence	.186	.002	33.637	.000		
Age					-.054	.062
SES					.025	.385
SLESQ					-.011	.735
CTQ					.315	.000
Verbal Violence					.088	.006
Maternal Control					.546	.017
VVxMtC					-.401	.080

[†] = values were obtained for the entire model

*only the final step is presented for each model

Table 33.

Summary of Hierarchical Regression Analyses of Paternal Control as a Moderator in the Relationship between Total, Physical, and Verbal WPV and Emotion Dysregulation

Variable	$R^{2\dagger}$	$\Delta R^{2\dagger}$	F^\dagger	p^\dagger	β	p
Total WPV	.194	.012	35.576	.000		
Age					-.064	.025
SES					.022	.456
SLESQ					-.009	.787
CTQ					.335	.000
Total WPV					.061	.078
Paternal Control					1.391	.000
WPVxPtC					-1.242	.000
Physical Violence	.199	.017	37.887	.000		
Age					-.067	.019
SES					.015	.600
SLESQ					-.009	.777
CTQ					.384	.000
Physical Violence					-.005	.892
Paternal Control					1.509	.000
PVxPtC					-1.360	.000
Verbal Violence	.191	.005	34.754	.000		
Age					-.063	.030
SES					.020	.485
SLESQ					-.009	.779
CTQ					.318	.000
Verbal Violence					.083	.010
Paternal Control					.695	.002
VVxPtC					-.542	.014

[†] = values were obtained for the entire model

*only the final step is presented for each model

Table 34.

Summary of Regression Analyses of Parental Warmth as a Mediator in the Relationship between Verbal Violence and Emotion Dysregulation

Variable	$R^{2\dagger}$	β	p
Step 1	.548		
Age		-.003	.892
SES		.063	.003
SLESQ		.032	.188
CTQ		-.682	.000
Verbal Violence on Parental Warmth		-.112	.000
Step 2	.164		
Age		-.061	.037
SES		.012	.670
SLESQ		-.012	.719
CTQ		.357	.000
Verbal Violence on Emotion Dysregulation		.100	.002
Step 3	.201		
Age		-.062	.029
SES		.029	.321
SLESQ		.006	.857
CTQ		.170	.000
Parental Warmth on Emotion Dysregulation		-.312	.000
Step 4	.204		
Age		-.062	.031
SES		.031	.274
SLESQ		-.002	.943
CTQ		.153	.001
Verbal Violence on Emotion Dysregulation		.066	.038
Parental Warmth on Emotion Dysregulation		-.299	.000

[†] = values were obtained for the entire model

Table 35.

Summary of Regression Analyses of Parental Control as a Mediator in the Relationship between Verbal Violence and Emotion Dysregulation

Variable	$R^{2\dagger}$	β	p
Step 1	.168		
Age		-.019	.513
SES		-.055	.060
SLESQ		-.017	.598
CTQ		.343	.000
Verbal Violence on Parental Control		.109	.001
Step 2	.164		
Age		-.061	.037
SES		.012	.670
SLESQ		-.012	.719
CTQ		.357	.000
Verbal Violence on Emotion Dysregulation		.100	.002
Step 3	.188		
Age		-.058	.044
SES		.019	.516
SLESQ		.001	.979
CTQ		.321	.000
Parental Control on Emotion Dysregulation		.195	.000
Step 4	.193		
Age		-.057	.046
SES		.023	.430
SLESQ		-.009	.790
CTQ		.293	.000
Verbal Violence on Emotion Dysregulation		.080	.013
Parental Control on Emotion Dysregulation		.187	.000

[†] = values were obtained for the entire model

Table 36.

Summary of Regression Analyses of Parental Control as a Mediator in the Relationship between Physical Violence and Emotion Dysregulation

Variable	R^2 [†]	β	p
Step 1	.162		
Age		-.019	.506
SES		-.056	.058
SLESQ		-.007	.839
CTQ		.354	.000
Physical Violence on Parental Control		.067	.045
Step 2	.159		
Age		-.063	.032
SES		.001	.961
SLESQ		.002	.946
CTQ		.429	.000
Physical Violence on Emotion Dysregulation		-.068	.043
Step 3	.188		
Age		-.058	.044
SES		.019	.516
SLESQ		.001	.979
CTQ		.321	.000
Parental Control on Emotion Dysregulation		.195	.000
Step 4	.193		
Age		-.059	.040
SES		.013	.664
SLESQ		.004	.912
CTQ		.358	.000
Physical Violence on Emotion Dysregulation		-.081	.014
Parental Control on Emotion Dysregulation		.200	.000

[†] = values were obtained for the entire model

Table 37.

Summary of Hierarchical Regression Analyses of Other-Family Social Support as a moderator in the Relationship between Total, Physical, and Verbal WPV and Emotion Dysregulation

Variable	$R^{2\dagger}$	$\Delta R^{2\dagger}$	F^\dagger	p^\dagger	β	p
Total WPV	.185	.002	33.458	.000		
Age					-.061	.035
SES					.009	.767
SLESQ					-.003	.920
CTQ					.281	.000
Total WPV					.056	.096
Other-Family SS					.396	.236
WPVxOFss					-.575	.087
Physical Violence	.182	.000	32.889	.000		
Age					-.064	.027
SES					.000	.998
SLESQ					.007	.840
CTQ					.343	.000
Physical Violence					-.061	.086
Other-Family SS					.026	.941
PVxOFss					-.197	.568
Verbal Violence	.191	.004	34.763	.000		
Age					-.060	.037
SES					.010	.736
SLESQ					-.010	.767
CTQ					.273	.000
Verbal Violence					.092	.004
Other-Family SS					.328	.127
VVxOFss					-.506	.020

† = values were obtained for the entire model

*only the final step is presented for each model

Table 38.

Summary of Hierarchical Regression Analyses of Non-Family Adults Social Support as a moderator in the Relationship between Total, Physical, and Verbal WPV and Emotion Dysregulation

Variable	$R^{2\dagger}$	$\Delta R^{2\dagger}$	F^\dagger	p^\dagger	β	p
Total WPV	.172	.001	30.729	.000		
Age					-.068	.020
SES					.010	.732
SLESQ					.000	.999
CTQ					.332	.000
Total WPV					.055	.109
Non-Family SS					.187	.591
WPVxNFss					-.308	.377
Physical Violence	.174	.001	31.033	.000		
Age					-.069	.017
SES					.000	.994
SLESQ					.008	.803
CTQ					.395	.000
Physical Violence					-.077	.027
Non-Family SS					.352	.323
PVxNFss					-.474	.184
Verbal Violence	.177	.001	31.623	.000		
Age					-.067	.021
SES					.011	.702
SLESQ					-.005	.874
CTQ					.324	.000
Verbal Violence					.091	.005
Non-Family SS					.078	.725
VVxNFss					-.196	.377

† = values were obtained for the entire model

*only the final step is presented for each model

Table 39.

Summary of Hierarchical Regression Analyses of Friends Social Support as a moderator in the Relationship between Total, Physical, and Verbal WPV and Emotion Dysregulation

Variable	$R^{2\dagger}$	$\Delta R^{2\dagger}$	F^\dagger	p^\dagger	β	p
Total WPV	.182	.000	32.851	.000		
Age					-.067	.020
SES					.017	.548
SLESQ					.007	.828
CTQ					.308	.000
Total WPV					.064	.059
Friends SS					-.348	.280
WPVxFrss					.188	.562
Physical Violence	.184	.002	33.271	.000		
Age					-.070	.015
SES					.010	.736
SLESQ					.013	.683
CTQ					.368	.000
Physical Violence					-.044	.205
Friends SS					-.662	.033
PVxFrss					.506	.105
Verbal Violence	.187	.000	33.823	.000		
Age					-.066	.021
SES					.018	.539
SLESQ					.002	.941
CTQ					.298	.000
Verbal Violence					.096	.003
Friends SS					-.090	.668
VVxFrss					-.071	.735

† = values were obtained for the entire model

*only the final step is presented for each model

Table 40.

Pattern Matrix of Exploratory Factor Analysis of the Brief COPE

Items (#)	Factor	
	1	2
I tried to get advice or help from other people about what to do (23)	.843	-.183
I got comfort and understanding from someone (15)	.808	-.134
I got help and advice from other people (10)	.802	-.131
I took action to try to make the situation better (7)	.748	-.087
I tried to come up with a strategy about what to do (14)	.731	.048
I got emotional support from others (5)	.722	-.083
I thought hard about what steps to take (25)	.704	.067
I looked for something good in what was happening (17)	.691	-.015
I tried to see it in a different light, to make it seem more positive (12)	.678	-.002
I concentrated my efforts on doing something about the situation I was in (2)	.568	.110
I tried to find comfort in my religion or spiritual beliefs (22)	.509	-.080
I accepted the reality of the fact that it had happened (20)	.499	.208
I prayed or meditated (27)	.482	-.078
I expressed my negative feelings (21)	.460	.209
I did something to think about it less, such as going to movies, watching TV, reading, daydreaming, sleeping, or shopping (19)	.417	.353
I made jokes about it (18)	.337	.269
I gave up the attempt to cope (16)	-.174	.729
I gave up trying to deal with it (6)	-.169	.711
I criticized myself (13)	.095	.644
I blamed myself for things that happened (26)	.017	.633
I used alcohol or other drugs to help me get through it (11)	-.139	.596
I refused to believe that it had happened (8)	-.089	.588
I said to myself "this isn't real (3)	-.011	.584
I used alcohol or other drugs to make myself feel better (4)	-.126	.576
I said things to let my unpleasant feelings escape (9)	.211	.479
I learned to live with it (24)	.284	.464
I turned to work or other activities to take my mind off things (1)	.279	.395
I made fun of the situation (28)	.225	.319

Extraction Method: Principal Axis Factoring.
Rotation Method: Promax

Table 41.

Summary of Hierarchical Regression Analyses of Modified Adaptive Coping as a moderator in the Relationship between Total, Physical, and Verbal WPV and Emotion Dysregulation

Variable	$R^{2\dagger}$	$\Delta R^{2\dagger}$	F^\dagger	p^\dagger	β	p
Total WPV	.166	.001	29.288	.000		
Age					-.063	.032
SES					.011	.720
SLESQ					.003	.923
CTQ					.357	.000
Total WPV					.069	.043
Mod Adap Coping					.400	.288
WPV _x mAC					-.477	.206
Physical Violence	.164	.000	28.944	.000		
Age					-.064	.027
SES					.001	.981
SLESQ					.010	.752
CTQ					.419	.000
Physical Violence					-.062	.064
Mod Adap Coping					-.018	.964
PV _x mAC					-.051	.902
Verbal Violence	.171	.002	30.424	.000		
Age					-.062	.033
SES					.012	.691
SLESQ					-.002	.949
CTQ					.349	.000
Verbal Violence					.103	.001
Mod Adap Coping					.250	.265
VV _x mAC					-.328	.145

[†] = values were obtained for the entire model

*only the final step is presented for each model

Table 42.

Summary of Hierarchical Regression Analyses of Modified Maladaptive Coping as a moderator in the Relationship between Total, Physical, and Verbal WPV and Emotion Dysregulation

Variable	R^2 [†]	ΔR^2 [†]	F [†]	p [†]	β	p
Total WPV	.258	.000	51.292	.000		
Age					-.051	.063
SES					-.009	.757
SLESQ					-.068	.030
CTQ					.235	.000
Total WPV					-.001	.964
Mod Mal Coping					.578	.061
WPV _x MC					-.202	.520
Physical Violence	.264	.001	52.877	.000		
Age					-.053	.052
SES					-.013	.630
SLESQ					-.067	.034
CTQ					.271	.000
Physical Violence					-.059	.088
Mod Mal Coping					.787	.006
PV _x MC					-.415	.156
Verbal Violence	.258	.000	51.370	.000		
Age					-.050	.067
SES					-.008	.784
SLESQ					-.072	.023
CTQ					.220	.000
Verbal Violence					.028	.367
Mod Mal Coping					.344	.104
VV _x MC					.031	.885

[†] = values were obtained for the entire model

*only the final step is presented for each model

Figure 1.

Effect of Total WPV on Emotion Dysregulation for High, Mean, and Low Levels of Parental Warmth

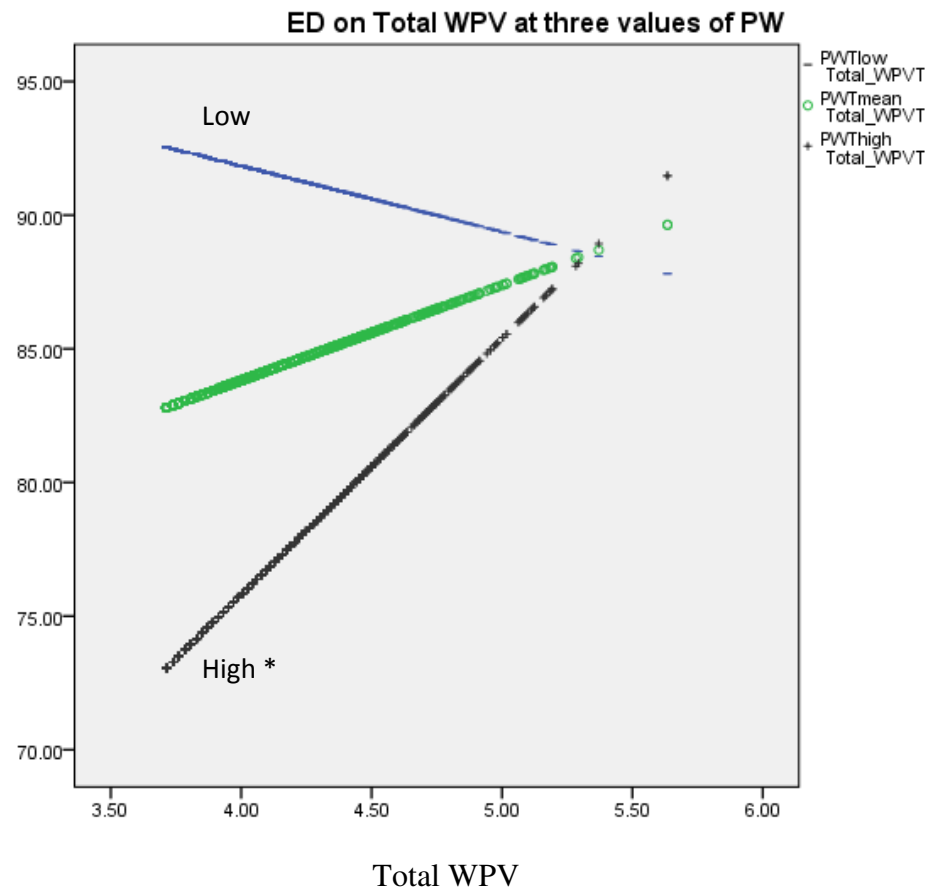


Figure 2.

Effect of Physical Violence Exposure on Emotion Dysregulation for High, Mean, and Low Levels of Parental Warmth

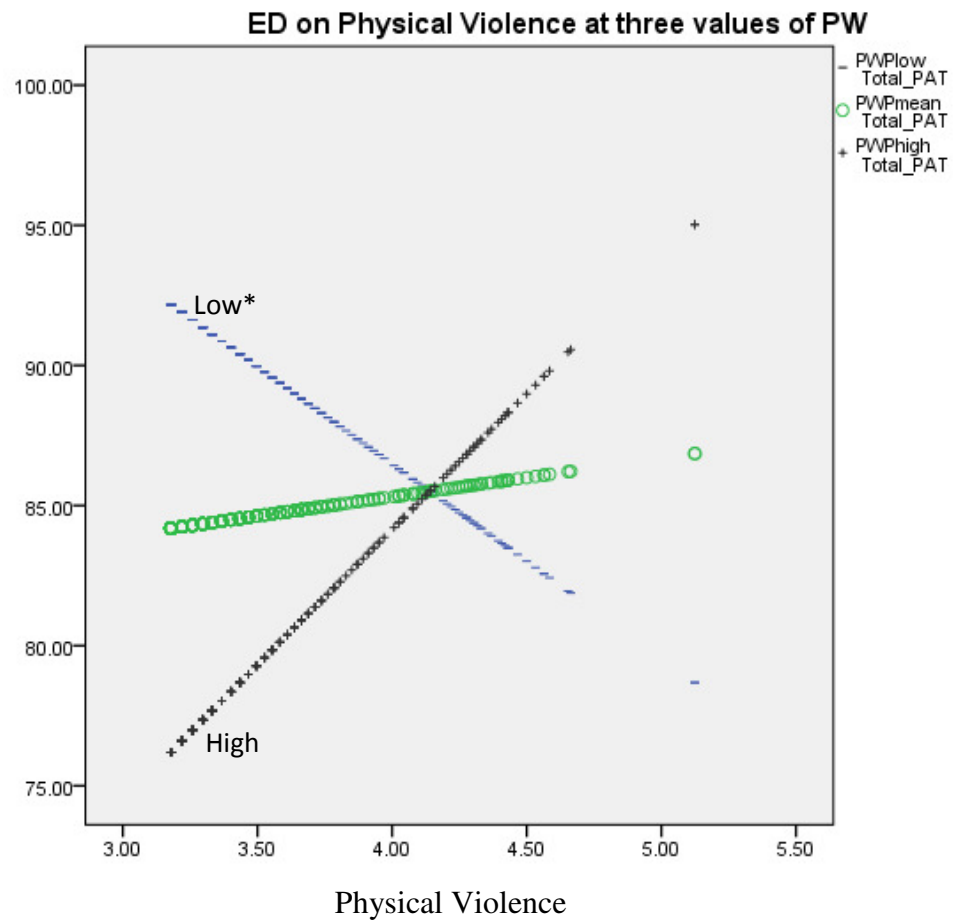


Figure 3.

Effect of Verbal Violence Exposure on Emotion Dysregulation for High, Mean, and Low Levels of Parental Warmth

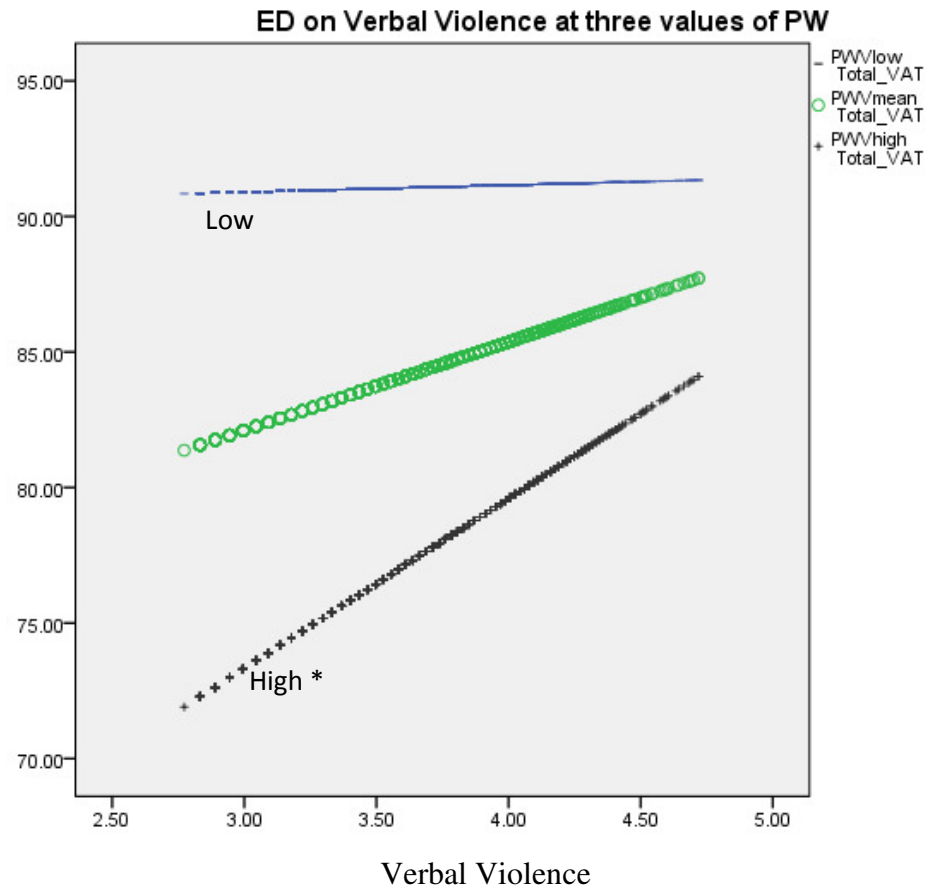


Figure 4.

Effect of Total WPV on Emotion Dysregulation for High, Mean, and Low Levels of Parental Control

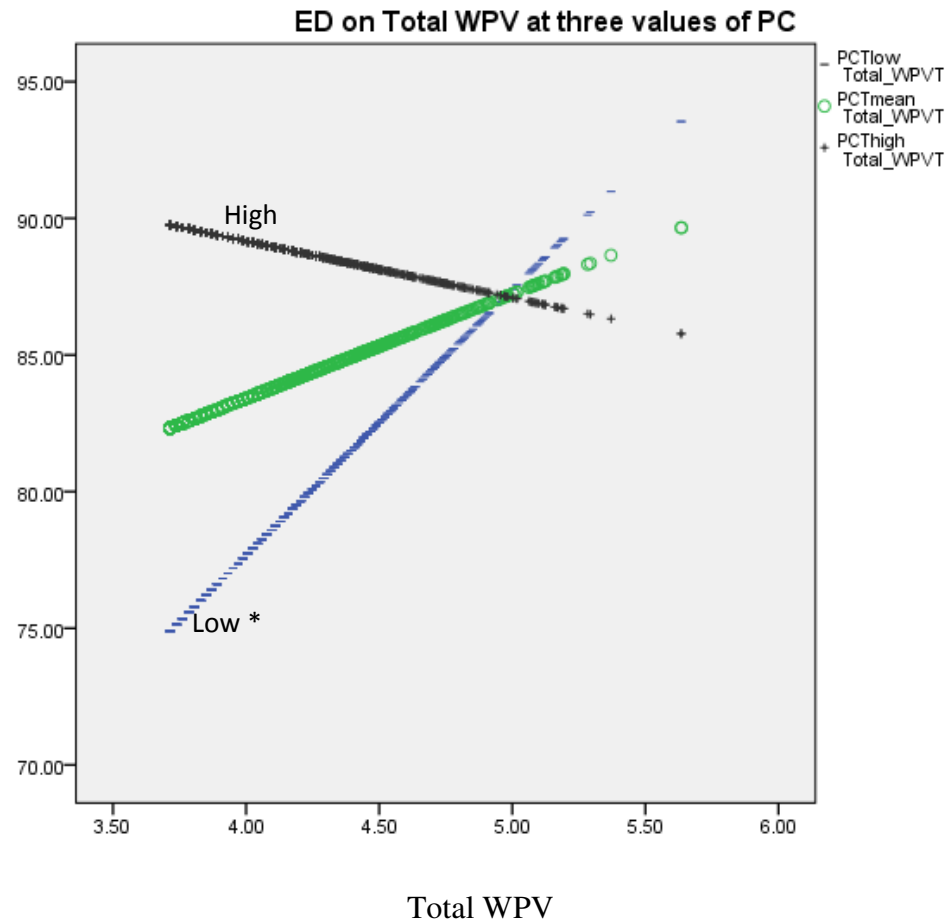


Figure 5.

Effect of Physical Violence Exposure on Emotion Dysregulation for High, Mean, and Low Levels of Parental Control

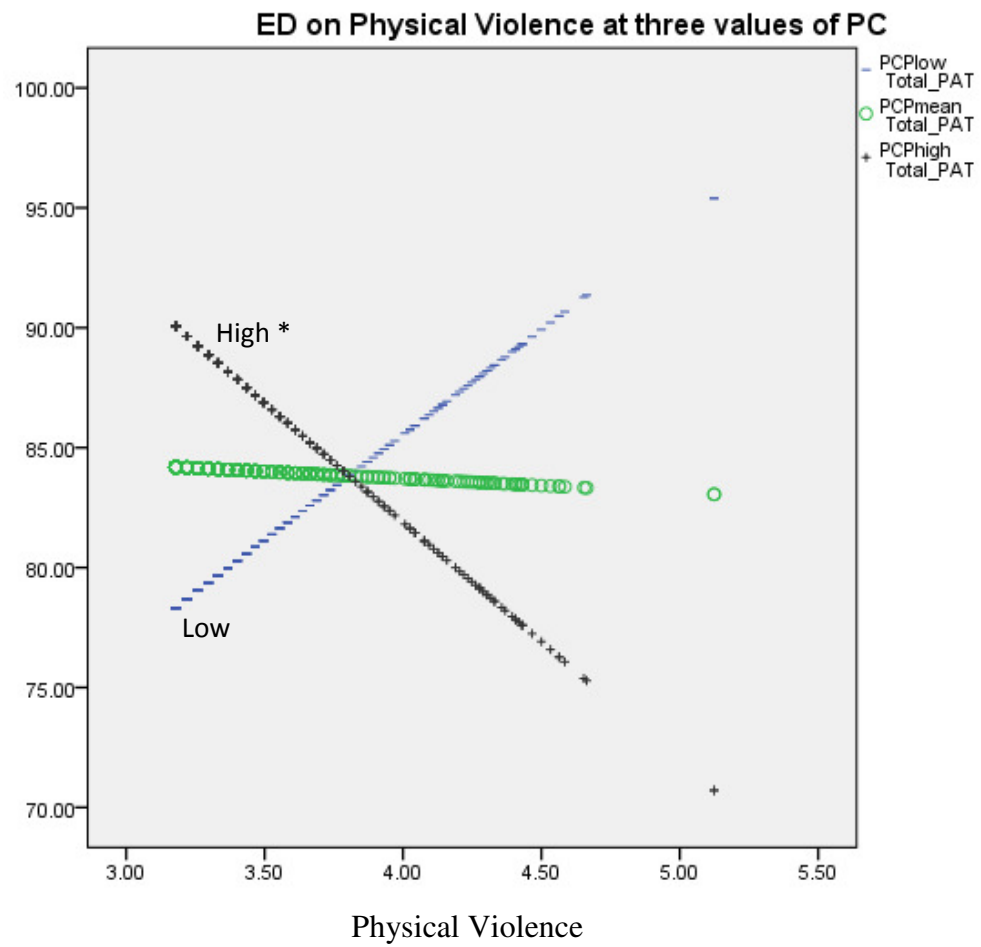


Figure 6.

Effect of Verbal Violence Exposure on Emotion Dysregulation for High, Mean, and Low Levels of Social Support

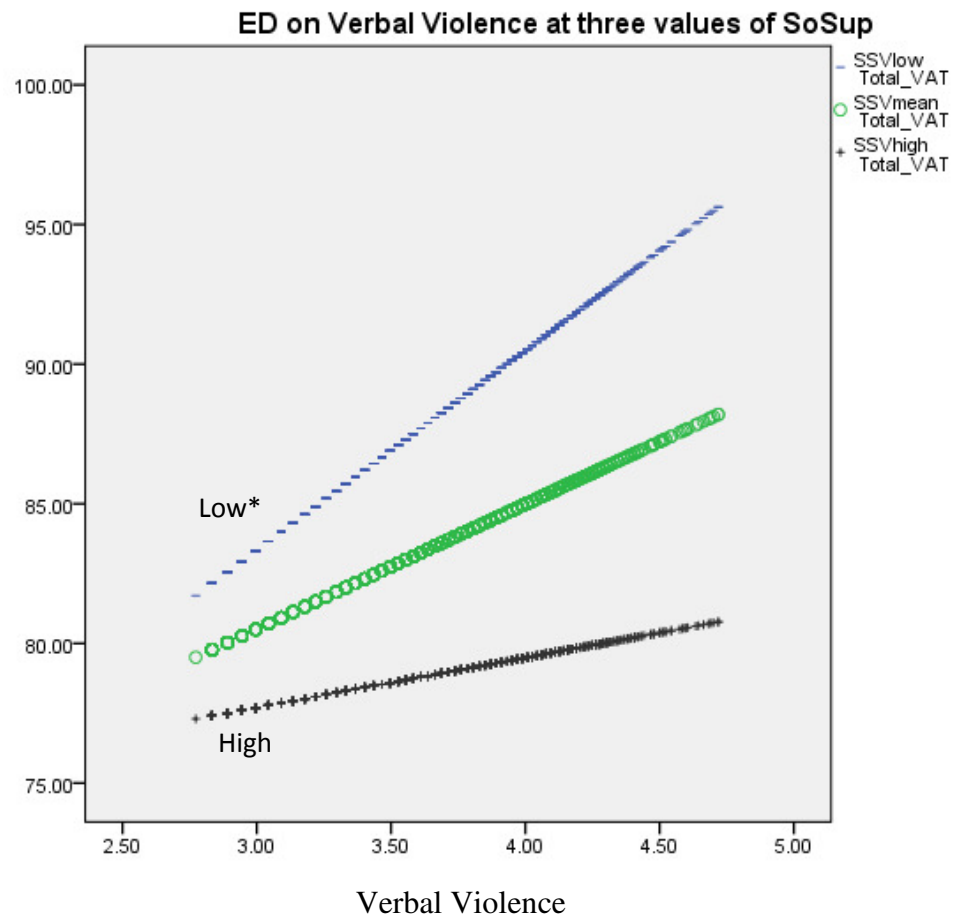


Figure 7.

Effect of Total WPV on Emotion Dysregulation for High, Mean, and Low Levels of Age of onset

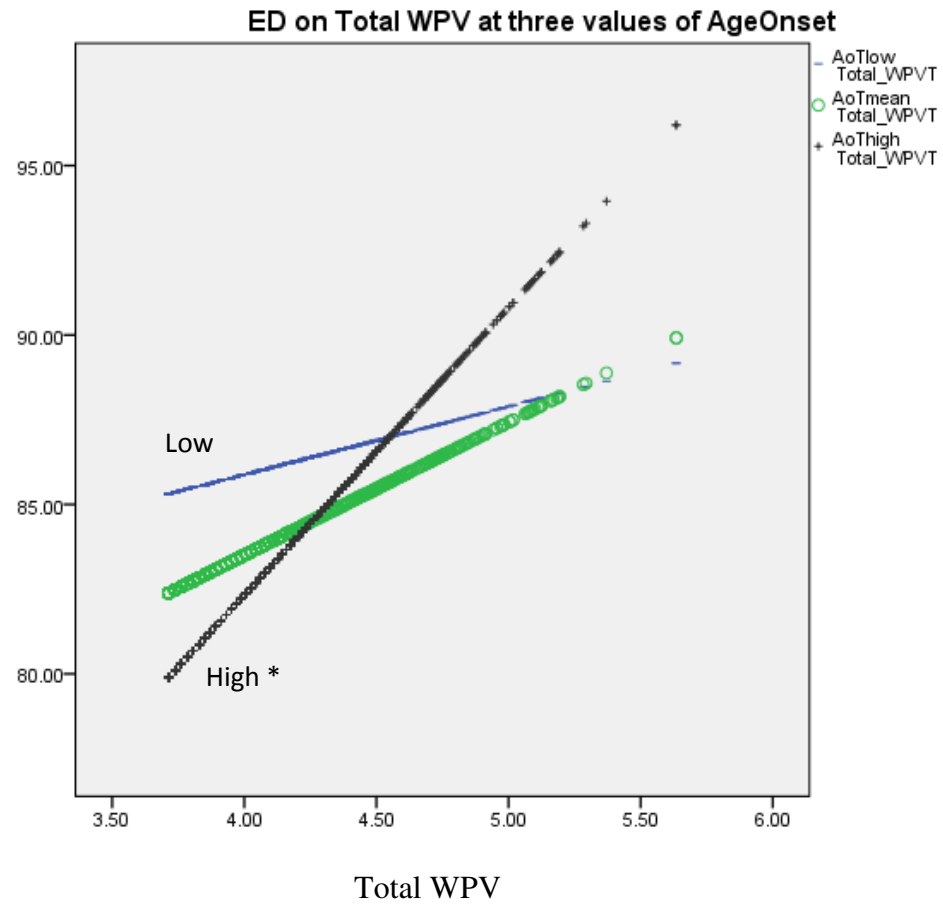


Figure 8.

Effect of Physical Violence Exposure on Emotion Dysregulation for High, Mean, and Low Levels of Age of onset

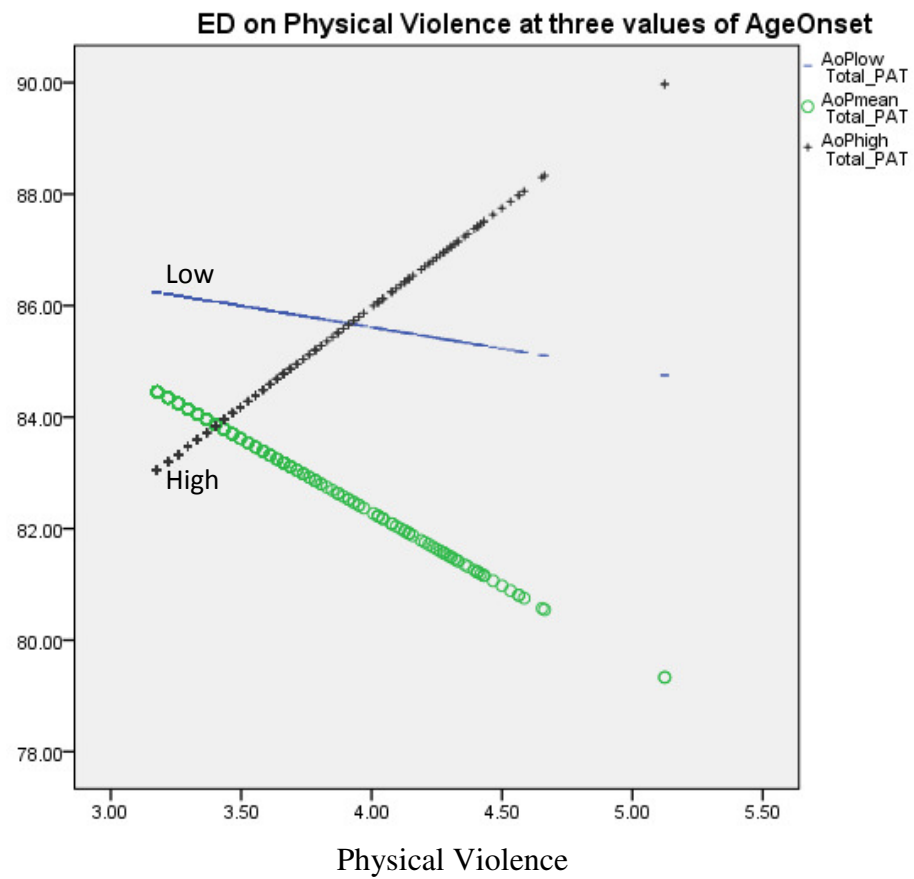


Figure 9.

Effect of Total WPV, Physical Violence, and Verbal Violence on Emotion Dysregulation for High and Low Levels of Mother's Warmth

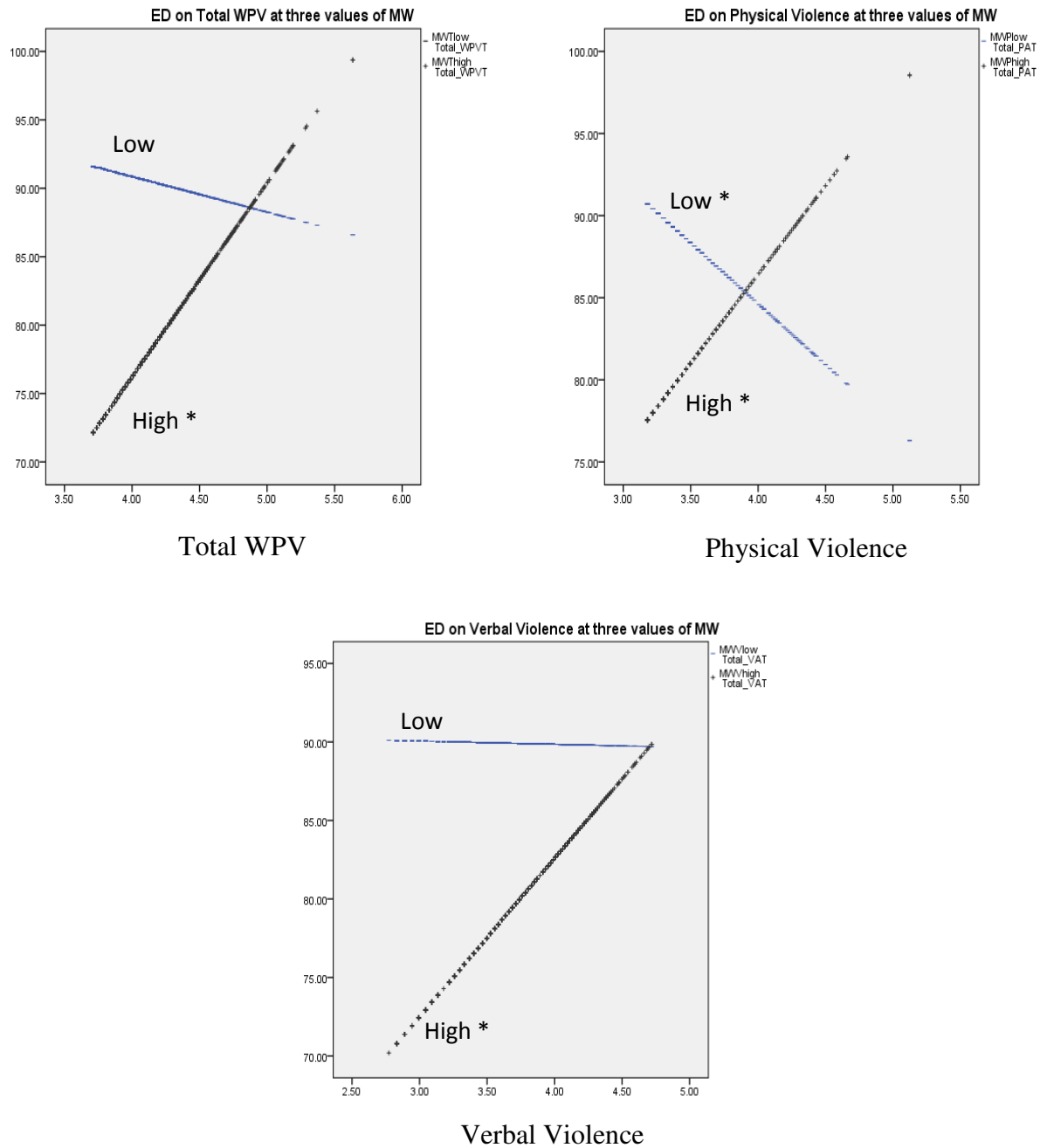


Figure 10.

Effect of Total WPV and Physical Violence on Emotion Dysregulation for High and Low Levels of Mother's Control

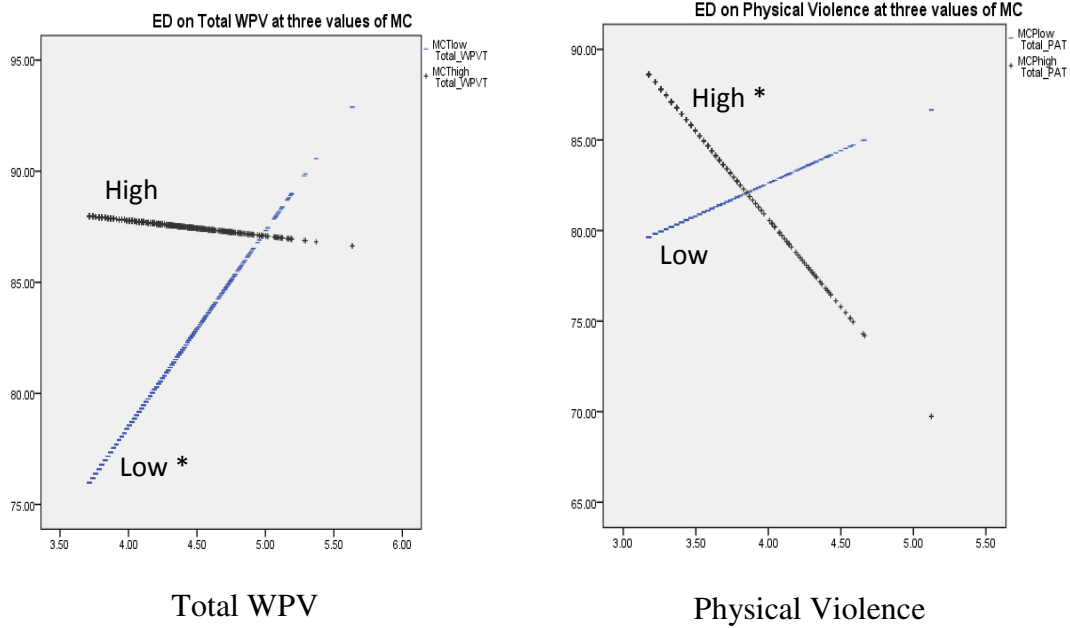


Figure 11.

Effect of Total WPV, Physical Violence, and Verbal Violence on Emotion Dysregulation for High and Low Levels of Father's Warmth

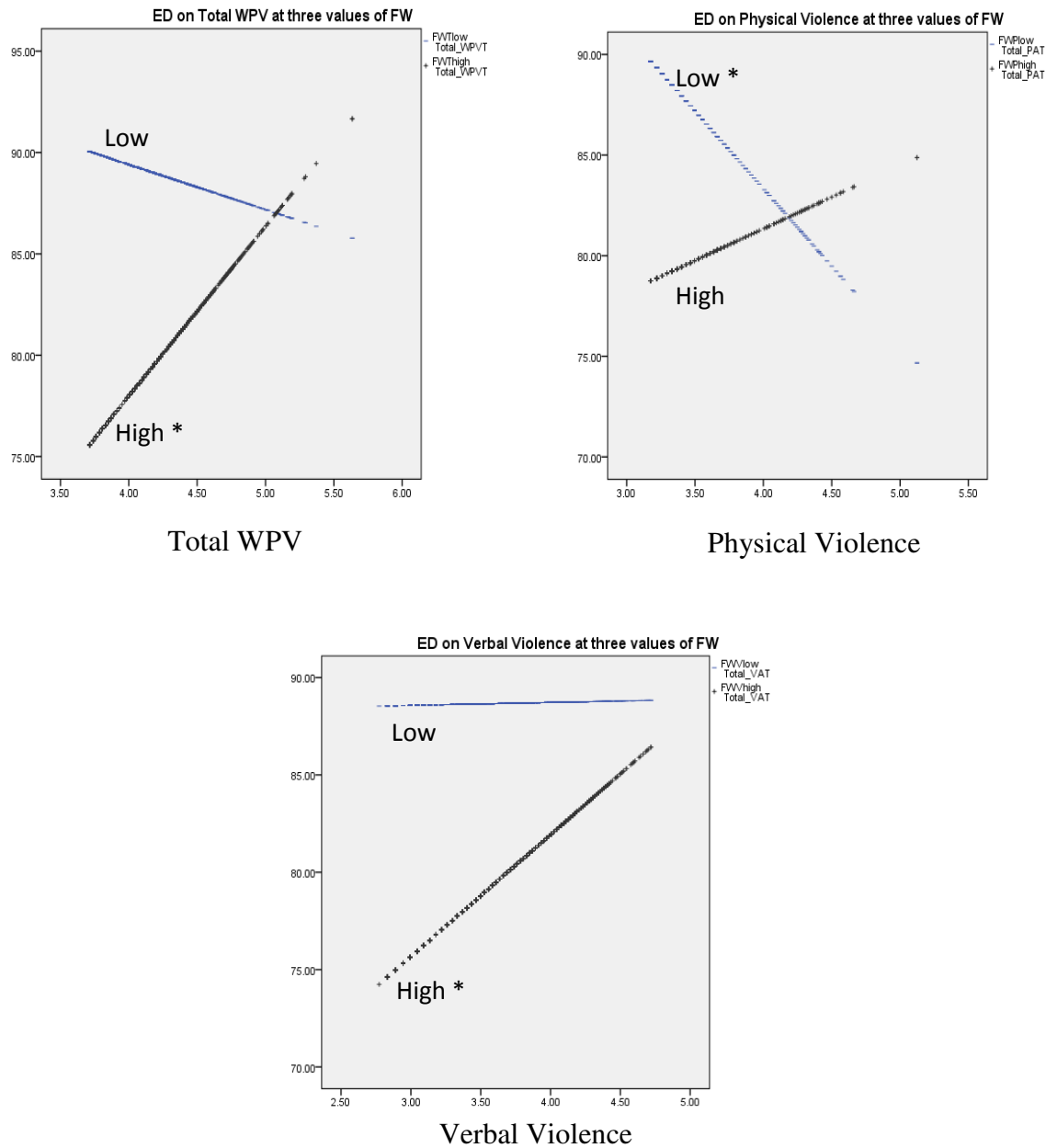


Figure 12.

Effect of Total WPV, Physical Violence, and Verbal Violence on Emotion Dysregulation for High and Low Levels of Father's Control

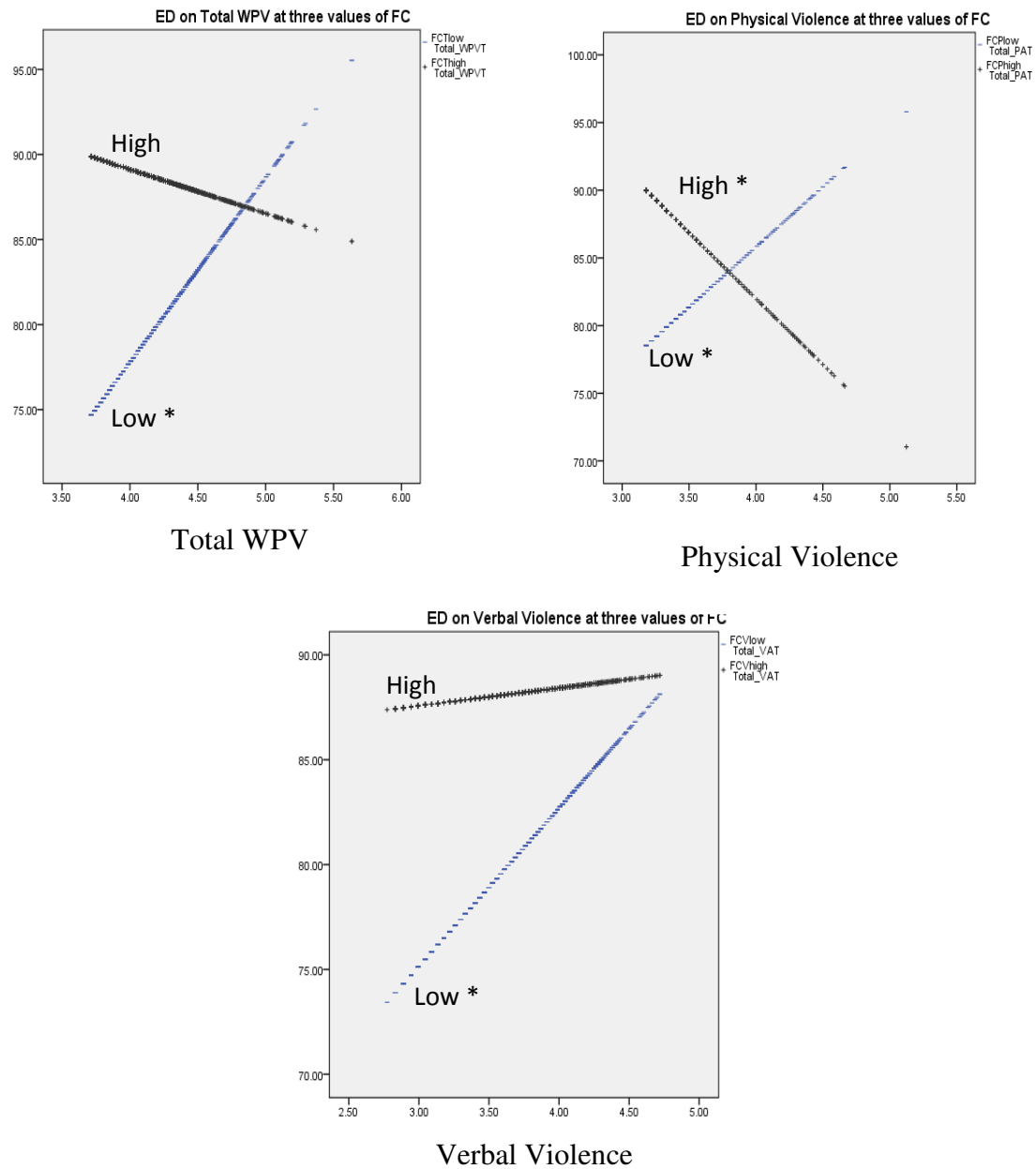


Figure 13.

Effect of Verbal Violence on Emotion Dysregulation for High and Low Levels of Other Family Social Support

