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Predicting the Likelihood of Dating Violence Perpetration in a Sample of Women: Unidirectional Versus Bidirectional Violence

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**PREDICTING THE LIKELIHOOD OF DATING VIOLENCE PERPETRATION IN A
SAMPLE OF WOMEN:**

UNIDIRECTIONAL VERSUS BIDIRECTIONAL VIOLENCE

by

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ABSTRACT

PREDICTING THE LIKELIHOOD OF DATING VIOLENCE PERPETRATION IN A SAMPLE OF WOMEN: UNIDIRECTIONAL VERSUS BIDIRECTIONAL VIOLENCE

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Old Dominion University, 2020
Director: Dr. Michelle L. Kelley

Intimate partner violence (IPV) is a serious, pervasive problem affecting over 30% of young adults. Although early research focused on men as perpetrators, it is commonly found that women are just as likely, if not more likely, to perpetrate violence in relationships. Some studies have categorized violent couple dyads into unidirectional (perpetration only) or bidirectional violence (reporting both perpetration and victimization). The current study identified predictors of the two types of violent profiles, specifically among female perpetrators. Included in the regression model were early family variables as dictated by the literature (e.g., child abuse, parental violence, early aggressive behavior, and early dating violence) as well as individual-level proximal variables (e.g., alcohol problems, anger, hostility, emotion dysregulation, and psychological aggression) thought to differentiate unidirectional and bidirectional violence.

Participants (M age = 20.49 years; SD = 2.54) were recruited from a large, southeastern university. Study criteria were: must be female, between the ages of 18 and 29, and report being in a current or recent (within the previous 12 months), heterosexual, and in a dating relationship lasting at least 3 months. After reading a notification statement and agreeing to participate, participants completed an anonymous online survey.

Data were analyzed using multiple logistic regression models. Logistic regression models examined which variables predicted the likelihood of dating violence perpetration,

compared to no perpetration. Results indicated that witnessing mother-to-father interparental violence, experiencing dating violence in adolescence, emotion dysregulation, and psychological abuse each significantly and uniquely predicted the likelihood of dating violence perpetration (compared to no violence). A second logistic regression analysis distinguished the two dating violence perpetrators (unidirectional and bidirectional) to determine if predictors of interest differentially increased the likelihood of unidirectional violence compared to bidirectional violence. Results of the analysis indicated that the variables hostility and alcohol problems each significantly and uniquely predicted the likelihood of bidirectional violence, such that an increase in each of these variables increased the odds of bidirectional violence compared to unidirectional violence. The aim of this research was to better understand the variables that predict perpetration in a sample of college women and furthermore, to identify variables that differentiate women who report only perpetration in their relationship compared with women who report both perpetration and victimization.

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This dissertation is dedicated to my parents for their unwavering love and support.

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CHAPTER I

INTRODUCTION

Intimate partner violence (IPV) is a chronic problem affecting over 30% of relationships (Lewis & Fremouw, 2001; Rapoza & Baker, 2009; Shorey, Cornelius, & Bell, 2008; Simons, Simons, Lei, Hancock, & Fincham, 2012; Tyler, Brownridge, & Melander, 2011). Early research focused primarily on the male partner as the perpetrator of IPV (e.g., Makepeace, 1981). However, a growing body of research has demonstrated that women are just as likely, if not more likely to perpetrate physical partner violence (Archer, 2000; Cercone, Beach, & Arias, 2005; Foshee & Matthew, 2007; Kaukinen, Gover, & Hartman, 2012; Kimmel, 2002; Testa, Hoffman, & Leonard, 2011). For instance, in one of the earliest studies of IPV, the rate of female-to-male partner violence was 21.4%, whereas the rate of male-to-female violence was 13.6% (Schafer, Caetano, & Clark, 1998). Similarly, a review of 48 studies showed that with the exception of criminal justice samples, female-to-male violence was more prevalent than male-to-female violence in every sample type (i.e., population-based, community, convenience, and clinical) (Langhinrichsen-Rohling, Misra, Selwin, & Rohlin, 2012).

Researchers categorize violent relationships as unidirectional violence (i.e., only one partner perpetrates violence) versus bidirectional violence (i.e., both partners perpetrate violence). Bidirectional violence is the most prevalent form of couple violence and is reported in 45-95% of couples with physically violent relationships (Fass, Benson, & Leggett, 2008; Lussier et al., 2013; Renner & Whitney, 2012). Unidirectional violence perpetrated by the female partner is the second most common category of couple violence (rates ranging from 21% to 37% of reported IPV), nearly twice as prevalent as unidirectional violence by the male partner (rates ranging from 10% to 20% of reported IPV) (see Langhinrichsen-Rohling et al., 2012 for a

review). Despite awareness that women perpetrate IPV more often than men, the processes underlying unidirectional versus bidirectional violence among women are unclear. In part this may reflect the stigma men feel seeking help when victims of partner violence and the slowness of researchers and the mental health community to recognize that women may perpetrate physical violence as often, if not more often, than men. The purpose of this study was to further examine predictors and pathways that may differentiate female-perpetrated violence from bidirectional violence.

Definition of Intimate Partner Violence

Intimate partner violence (IPV) is a term coined by the Centers for Disease Control and Prevention that includes physical, emotional, and sexual aggression that occurs between current and former married, cohabitating, and dating partners (Saltman & Houry, 2009). One limitation of research on IPV is the wide range of operational definitions used to measure violence. Since IPV includes multiple types of violence, and different levels of severity, defining and measuring IPV are difficult. Further, the inconsistencies about how to define and measure IPV have resulted in discrepant findings in the prevalence rates, predictors, and consequences of IPV (Hamby, 2005; Kimmel, 2002). For example, a measure asking how many times the respondent yelled or swore at their partner in the last week would yield different rates of aggression than how often they hit or kicked their partner in the last year. To reduce these inconsistencies, Straus and colleagues (1996) developed a widely-used comprehensive measure of IPV, named the Revised Conflict Tactics Scale (CTS2), which asks respondents to indicate the frequency of a wide range of behaviors that differ in severity and type of aggression. For the purpose of the current study, partner violence is defined as “the use or threat of physical force or restraint carried out with the intent of causing pain or injury to another” (Sugarman & Hotaling, 1989, p.

5). The Physical Assault and Injury subscales of the CTS2 was used to operationally define IPV. These subscales include a wide range of physical behaviors that encompass many types of physical violence within dating, cohabitating, and married partners. Psychological aggression, or emotional abuse, was examined as a separate variable independent of partner violence.

Consequences of dating violence for men and women. Individuals report experiencing a range of physical and mental health consequences from IPV. Women who have been victims of IPV report more general health problems, including gynecological, chronic stress-related and central nervous system problems (Campbell et al., 2002). Specific physical health consequences for women include headaches, back pain, STIs, vaginal bleeding, vaginal infections, pelvic pain, painful intercourse, urinary tract infections, appetite loss, abdominal pain, and digestive problems (Campbell et al., 2002). Mental health related consequences include PTSD, depression, anxiety, and substance abuse (Briere & Jordan, 2004) including both increased levels of recreational and non-recreational substance use (Carbone Lopez, Kruttschnitt, & Macmillan, 2006). Further, the Center for Disease Control (2019) reports that 1 in 6 deaths (16%) by homicide are a result of intimate partner violence.

In comparison to women, most of the consequences of IPV for male victims are related to mental health issues. Men who are victims of IPV report poor mental health, depressive symptoms, substance use, and chronic mental illnesses (Coker et al., 2002; Reid et al., 2008). Other significant consequences for men include chronic disease and injury (Coker et al., 2002); however, research into the physical and mental health consequences of IPV for men is quite limited in comparison to women. Although both men and women who are victims of IPV report experiencing negative consequences, these consequences are not gender symmetrical. Women are more likely to sustain injuries from IPV and these injuries are more often severe (Tjaden &

Thoennes, 2000). In addition, women report greater fear of a male partner who is a physically violent batterer, defined by unidirectional perpetration of violence (Malloy, McCloskey, Grisby, & Gardner, 2003), and are more likely to remain in a violent relationship for economic reasons and unable to escape violence (Dutton & Nicholls, 2005).

Characteristics of Different Types of Intimate Partner Violence

Numerous studies have compared the prevalence and severity of violence among different types of violent couples (Archer, 2000; Caetano, Ramisetty-Mikler, & Field, 2005; Renner & Whitney, 2012; Straus, 2011). Although it is generally agreed that bidirectional violence is the most common form of couple violence (e.g., Foshee, 1996; Gray & Foshee, 1997; Straus, 2008), whether unidirectional or bidirectional violence is more severe is less clear. For example, some studies have found that unidirectional violence is more severe among female perpetrators (Foshee, 1996; Vivian & Langhimichsen-Rohling, 1994), whereas others find that bidirectional violence typically results in greater severity (Gray & Foshee, 1997; Kaukinen, Gover, & Hartman, 2011; Lewis & Fremouw, 2001). In the current study, unidirectional violence was defined as reporting any acts of physical violence toward a dating partner, whereas reporting no victimization in one's current or most recent dating relationship. Bidirectional violence was defined as reporting both perpetration and victimization of physically violent acts in one's current or most recent dating relationship.

Investigators have also begun to examine unique risk factors that predict violence among different dyadic pairings of violence (e.g., unidirectional male perpetrated, unidirectional female perpetrated, bidirectional) (e.g., Caetano et al., 2005; Renner & Whitney, 2012; Stith, Smith, Penn, Ward, & Tritt, 2004). For example, Caetano and colleagues (2005) found that factors that led to female unidirectional or bidirectional violence had greater associations with a history of

early violence or current alcohol problems. That is, partner characteristics were less important in predicting her likelihood of aggression than vice versa. Similarly, Renner and Whitney (2012) reported unique risk factors for women's unidirectional and bidirectional violence, such that childhood abuse was associated with bidirectional violence, whereas youth violence (defined as peer aggression, bullying, or getting into physical fights during early adolescence) increased the odds that women were in either type of violent relationship.

Women as perpetrators. In general, early studies on female-to-male violence have found that females perpetrate violence toward their male partners in self-defense or in the context of a violent episode. In a review that examined clinical samples of male and female perpetrators of IPV over a 10-year period, Hamberger and Larsen (2015) found that the majority of female-to-male violence was in response to violence initiated against them. Thus, studies with clinical samples show that women's perpetration of IPV typically occurs in response to their male partners' IPV. A growing body of research, however, has examined variables that lead to IPV perpetrated by females outside of a violent episode (i.e., not in self-defense). For example, Fanslow, Gulliver, Dixon, and Ayallo (2015) investigated women involved in violent relationships (N = 845) using a population-based cluster sampling procedure (i.e., interviewing women of random houses). They found that 19% indicated that had initiated physical violence toward their partner without being provoked by any violence from their partner. Among these women, their partners' alcohol problems, witnessing her mother being hit by her father, and both partners having been the victim of physical child abuse, predicted women's non-provoked physical violence. Another study found that female perpetrated violence was significantly associated with hazardous alcohol use and a general history of violence (Tsiko, 2015).

Emerging adulthood and dating relationships. Intimate partner violence was originally studied on married partners seeking treatment for violence, and typically among male batterers. This focus is because women are much more likely to be injured during a violent episode, and thus are more likely to report partner violence (Archer, 2000; Foshee, 1996; Jose & O’Leary, 2008; Roberts, Auinger, & Klein, 2005; Whitaker et al., 2007). Young adulthood is the ideal time of development for serious dating relationships. Coined by Arnett (2000) “emerging adulthood” is a period of time (ages 18 to 25 years) marked by new independence, identity exploration, personal achievement, and romantic relationships. The relationships during this period differ in quality compared to early adolescence and later adulthood (Tanner et al., 2009). Since they are more likely to cohabitate, emerging adults have more experiences with day-to-day conflict with their significant other (Michael, Gagnon, Laumann, & Kolata, 1995). They also report more intense feelings toward their partner, indicating a more serious relationship compared to dating relationships during adolescence (Tanner et al., 2009). These feelings of intensity can often lead to poor conflict management tactics escalating to violence. College-age students provide the most ideal sample to investigate the growing problem of dating violence. Base rates of physical partner violence among college students is around 26%, and one study found no significant differences compared to base rates of non-college students of the same age (e.g., Coker, Follingstad, Bush, & Fisher, 2016). When taking severity into account, prevalence rates among female college students range from 15% for severe physical violence, to 38% for minor physical violence (Cercone, Beach, & Arias, 2005). It is worthy to note that in Cercone et al.’s (2005) study, female students were significantly more likely to perpetrate severe violence, as compared to males (7.4%). Not only is emerging adulthood a critical time for forming relationship norms and conflict tactics, but rates of violence rise throughout adolescence and

peak at the age of 25 at 35% (O'Leary et al., 1989). Further, dating aggression during this period is longitudinally predictive of physical perpetration during marriage (Leonard & Senchak, 1993).

Limitations of Existing Studies

As previously mentioned, one key limitation in previous work is the inconsistency of the way intimate partner violence is defined and measured. For example, some studies report lifetime prevalence rates of violence, whereas others report rates of violence that has happened in the last 12 months. Further, many studies use self-report for convenience, even though interviews or questioning each partner may be more reliable. The proposed study used a well-established measure of partner violence (the Conflict Tactics Scale) to address some of the limitations of measurement. Another inconsistency among research on violence is the sampling procedure administered. Researchers yield very different rates of violence depending if they use a community-based sample, clinical sample, or court-mandated sample of offenders. The current study surveyed university students to obtain a sample of emerging adult women involved in current relationships, the peak time for reported IPV (O'Leary et al., 1989). Researchers also rarely distinguish types of violence in relationships; that is, bidirectional and unidirectional (female-to-male and male-to-female). There is reason to believe that unidirectional violence occurs in isolation compared to bidirectional violence, which often appears to be retaliatory or defensive in nature. Therefore, it is easy to assume that unidirectional violence is more aggressive in nature. This study expanded upon previous research to determine the qualitative differences of unidirectional and bidirectional violence, specifically among female perpetrators to determine risk factors associated with their occurrence.

The present study was based on three prominent perspectives of dating violence perpetration: social learning theory, the developmental perspective, and the psychopathological

perspective. These theories are integrated, with a group of variables thought to differentiate women's unidirectional versus bidirectional violence. The purpose of this research was two-fold: first, to examine variables, based on the theories above, that would predict dating violence perpetration among a sample of college adult women, and second, to identify variables that would differentially predict unidirectional versus bidirectional violence.

Theoretical Framework for the Proposed Model

The theoretical framework underlying the proposed model is based on an integration of three well-established theories of partner aggression: 1) social learning theory, including experiencing child abuse and parental violence within the family of origin; 2) developmental perspective, including a life-course of aggressive tendencies, such as youth violence and dating aggression during adolescence; and 3) psychopathological perspective, which includes the development of maladaptive problems, such as alcohol problems, emotion dysregulation, anger, and hostility. Although the social learning theory is more established in the violence literature, there is empirical support for other theories explaining the mechanisms through which violence develops throughout the lifespan. O'Leary, Tintle, and Bromet (2014) tested an integrated theory approach to partner violence and found support for social learning, developmental, dyadic (relationship discord), and psychopathological risk factors predicting IPV perpetration. Therefore, it appears that one theory may not adequately explain partner aggression; rather, it is a combination of different perspectives that have the most utility in explaining women's perpetration of partner violence.

Social learning theory. The intergenerational transmission of violence hypothesis follows Bandura's social learning theory and contends that children who experience violence (either with abuse or witnessing parental violence) are more likely to experience violence later in

adolescence and adulthood compared to those who did not experience violence (see Kimber, Adham, Gill, McTavish, & MacMillan, 2018 for a review). For instance, compared to adult women who were not abused as children, adult women who were severely abused as children, were 8.6 times more likely to be in a bidirectionally violent relationship (Caetano et al., 2005). Even if not abused themselves, children who witness violence between their parents are also more likely to become perpetrators. In many cases, children who witness violence between parents learn that aggression and violence are acceptable means for conflict resolution and may model this behavior in their own intimate relationships (Black et al., 2010; Franklin & Kercher 2012; Yok-Fong & Markham, 2019). Longitudinal research by Hall-Smith et al. (2003) found that among women, those most likely to be physically or sexually victimized or in bidirectionally violent relationships across the 4 years of college were those with a history of both childhood victimization and physical victimization in adolescence. As such, it appears that experiencing or witnessing violence during childhood can trigger a cycle of violence that may extend into adulthood.

Stith and colleagues (2000) conducted a meta-analysis of 39 studies to further understand the intergenerational transmission of violence hypothesis and found that violence in the family of origin predicted more perpetration among males and more victimization among females. They further concluded that in order to distinguish factors that contribute to IPV perpetration and victimization, including bidirectional and unidirectional violence, future research should examine the gender patterns of the violent parent and subsequent violent behavior of offspring. Based on previous research, it was hypothesized that social learning theory would explain several variables associated with bidirectional violence, however, social learning theory was expected to be less valuable for explaining unidirectional violence.

The developmental perspective. Many studies have demonstrated that a developmental trajectory of conduct problems can lead to partner aggression. Such variables include externalizing problems throughout childhood and adolescence, early dating aggression, and early onset of alcohol problems. Rooted in childhood, the developmental history of antisocial problems has longitudinally predicted partner aggression in young adulthood (Ehrensaft, Moffitt, & Caspi, 2004; Moffitt, Caspi, Rutter, & Silva, 2001). Early dating violence in adolescence is a stable predictor of later aggression in adulthood (see Williams, Ghandour, & Kub, 2008). Few studies have examined the longitudinal link between early dating violence and later IPV in adulthood, especially among girls. The developmental trajectory is hypothesized to take one of two paths, according to researchers. “Adolescence limited” refers to violence that starts in early adolescence but tapers off in young adulthood. The current paper, however, tested the “life course persistent” trajectory which posits that aggression begins in early childhood and persists throughout adolescence and young adulthood (United States Department of Health and Human Services, 2001).

The psychopathology perspective. Although social learning theory explains much of the variability in perpetration and victimization of violence, there remains unexplained variability in partner aggression, especially among adults that do not experience a life course of violence. Hamberger and Lohr (1989) theorized that certain psychopathological problems, such as alcohol abuse and emotion dysregulation, predict partner aggression. Further, Norlander and Eckhardt’s (2005) meta-analysis showed that male IPV perpetrators consistently had higher levels of anger and hostility than non-violent males, across various measurement approaches. Psychopathological variables are frequently found to be mediators and moderators on IPV perpetration. In a study of women arrested for domestic violence, findings illustrated that trait

anger and impulsivity significantly predicted physical perpetration against a partner (Shorey et al., 2011a). Further, they found that trait anger mediated the relationship between impulsivity and violence. Therefore, it was expected that these individual-level problems will further explain the developmental trajectory of violence perpetration.

Developmental Predictors of Violence Perpetration

Childhood physical abuse. Experiencing child abuse, especially physical abuse, is one of the most commonly identified predictors of later violence (Fang & Corso, 2007; Fang & Corso, 2008; Simons et al., 2008; Simons et al., 1998; Tyler et al., 2011). For instance, females were more likely to be perpetrators of partner violence when both she and her partner reported being physically abused in childhood (Fanslow et al., 2015). Caetano, Ramisetty-Mikler, and Field (2005) examined risk factors that lead to male and female unidirectional and bidirectional violence and determined that childhood physical abuse was a factor in all three types of violence; male-to-female, female-to-male, and bidirectional violence. Other research has found that child abuse increases the odds for bidirectional violence. Kaukinen (2015) found that child abuse significantly increased the risk for being in a bidirectionally violent relationship. However, the association between child abuse and dating violence was moderated by gender, such that women were at greater risk for bidirectional violence, but not unidirectional violence. Likewise, in an unpublished study by the author (2014), unidirectional and bidirectional patterns of violence were examined in a sample of young adults participating in the National Longitudinal Study of Adolescent to Adult Health. Numerous variables increased the odds of being in a bidirectionally violent relationship as compared to a unidirectional one. Variables that predicted the likelihood of bidirectional violence included being the victim of childhood physical abuse and early aggressive behavior. Due to previous findings, child abuse was hypothesized to predict

female perpetrated violence. Moreover, child abuse was expected to have a stronger effect on bidirectional violence as compared to unidirectional violence.

Interparental violence. Several research studies have shown that unprovoked IPV by females was more likely when women reported witnessing their mothers being abused by their fathers as children (e.g., Fanslow et al., 2015; Schwartz et al., 2006; Tsiko 2015). The effects of witnessing father-to-mother violence appear to have widespread consequences. For instance, witnessing parental abuse is linked to poor psychological adjustment, including alcohol and substance use problems, and experiencing violence in their own romantic relationships (e.g., Tsiko, 2015). Further, exposure to IPV increases children's proneness to bullying, aggressive, violent, and delinquent behavior (Baldry, 2003; Cauffman et al., 1998; Lemmey et al., 2001; McFarlane et al., 2003; Moretti et al., 2006). For instance, Flannery et al. (2001) found dangerously violent girls were 2-7 times more likely to have been exposed to violence and were 3-5 times more likely than controls to have scored in the clinical range of depression, anxiety, posttraumatic stress, anger, and dissociation. In a seminal study comparing unidirectional and bidirectional violence among a community sample, Caetano and colleagues (2005) reported that witnessing parental violence or even the threat of violence was associated with female-to-male partner violence, but not bidirectional violence. Other studies have found a significant link between experiencing child abuse and witnessing parental violence and later reporting victimization in a romantic relationship (see Stith et al., 2000 for a review). Due to these findings, it was hypothesized that witnessing parental violence would be an important predictor in predicting female perpetrated violence, and perhaps be a stronger predictor for unidirectional violence as compared to bidirectional violence.

Early aggressive behavior. Following the intergenerational transmission of violence hypothesis, child abuse often leads to youth violence (also referred to as early aggressive behavior) during young adolescence (Kuhl, Warner, & Warner, 2015). Early aggression is a strong and consistent predictor of the perpetration of dating violence in adulthood (Renner & Whitney, 2012). In a longitudinal peer cohort study, $N = 1,037$ subjects were followed through adolescence into adulthood. Moffitt and colleagues (2001) found that antisocial traits and conduct problems among females at age 15 predicted IPV perpetration against their partners at age 21, even after controlling for her partner's abuse. Whether early aggression predicts unidirectional or bidirectional violence among women is less understood. However, in a nationally representative longitudinal study (Murphy, Kelley, & Hollis, 2015b), early aggressive behavior increased the odds for both unidirectional and bidirectional dating violence perpetration among females.

Adolescent dating violence. One of the most common predictors of future violence is past violence. There is a well-established link between a family history of violence and dating violence during early adulthood. Perhaps even more crucial to forming expectations for adult relationships are initial dating relationships. Early dating relationships are pivotal in developing the normative behavior of future relationships; that is, experiencing dating violence may raise the likelihood of aggression in future relationships because it is viewed as a normal way to handle conflict (Connolly & Josephson, 2007). Research shows that violence is a prevalent problem in initial dating relationships during adolescence, though prevalence rates vary widely depending on how violence it is measured. In a review paper on adolescence dating violence, Foshee and Matthew (2007) report estimates of psychological abuse ranging from 14%-81% and physical violence ranging from 11%-41%. Nonetheless, early dating violence leads to a host of

psychological problems, including depressive symptoms, physical and psychological complaints, and substance use. These findings integrate the developmental and psychopathological perspectives (Haynie et al., 2013).

Psychopathological Predictors of Violence Perpetration

Although a family history of violence increases the risk for IPV, the pathways leading to IPV are less clear. Researchers have attempted to further understand the individual-level variables that might mediate the relationship between early violence and IPV. Several variables, however, have been identified that may mediate the relationship between early childhood violence and IPV. In a study by Shorey, Stuart, Moore, and McNulty (2014) that focused primarily on female perpetrators, respondents completed daily diaries for 90 days. Women were instructed to note instances of drug and alcohol use, feelings of anger, and instances of physical and psychological aggression. The authors found that on days where alcohol was consumed and angry affect was high, the odds for both physical and psychological aggression increased. Moreover, anger acted as a moderator between the alcohol use-aggression association, such that alcohol use only predicted physical and psychological aggression when angry affect was high, but not low. Although the Shorey et al. study found that anger moderated associations between alcohol and physical and psychological violence, their findings illustrate the need to further examine these variables, especially in relation to bidirectional versus unidirectional female-perpetrated violence.

Alcohol problems. Alcohol consumption and its alcohol consequences can exacerbate an already violent relationship. This association could be on the part of the perpetrator or victim. It has been estimated that 27% to 41% of men and 4% to 24% of women report drinking at the time of a violent episode (Caetano, Cunradi, Schafer, & Clark, 2000). Findings on the effect of

alcohol consumption on violence have been mixed; it is generally found that light to moderate alcohol use does not predict violence. In contrast, heavy alcohol consumption/drunkenness, or experiencing the consequences of alcohol use, leads to violence (Caetano, McGrath, Ramisetty-Mikler, & Field, 2005; O’Leary & Schumacher, 2003; Roudsari et al., 2009; Wiersma, Cleveland, Herrera, & Fischer, 2010). In studies by the author (Murphy, Kelley, & Hollis, 2015a,b), alcohol use alone did not predict violence; rather, it was experiencing alcohol problems as a result of drinking that consistently predicted unidirectional violence by males, females, and bidirectional partner violence. Further, alcohol problems acted as a significant mediator on the relationship between childhood physical abuse and partner violence. In a study of women ordered to alcohol treatment, heavy drinking prior to an event significantly predicted women’s perpetration of physical violence (Kaufmann et al., 2014). Fanslow (2015) found that both partners’ alcohol problems contributed to women’s unprovoked perpetration of violence against their male partners. Similarly, Tsiko (2015) found that male partners’ drunkenness led to their female partners’ perpetration of violence. The effect of alcohol problems on female-to-male violence has been consistent across race as well (Caetano, Nelson, & Cunradi, 2001). Although alcohol problems have been shown to predict both unidirectional and bidirectional violence perpetration among women, it appears the association between alcohol problems and perpetration of partner violence may be stronger for women who report unidirectional violence toward their male partner (Fanslow, 2015). For this reason, alcohol problems was hypothesized to have a stronger association with unidirectional violence perpetration.

Anger and hostility. While little research has examined anger and hostility in female-to-male perpetrated violence, anger and hostility are robust predictors of male-to-female IPV. In one of the few studies to address this issue, using data from the Toledo Adolescent Relationships

Study of adolescents and young adults, anger contributed to both women's and men's perpetration of relationship violence (Giordano, Copp, Longmore, & Manning, 2016). For instance, in a meta-analysis of male-to-female IPV, Norlander and Eckhardt (2005) found IPV perpetrators reported significantly higher levels of anger and hostility compared to nonviolent men. Further, anger and hostility were associated with more severe types of violence. More recently, Birkley and Eckhardt (2015) conducted a meta-analysis that included both male-to-female and female-to-male IPV perpetration. Anger, hostility, and IPV perpetration were associated. Further, the associations were stronger for moderate to severe violence as compared with less severe IPV perpetration.

Although anger and hostility are often studied together, there is evidence that they represent different constructs and should be treated as separate variables (Norlander & Eckhardt, 2005). Hostility is defined as "a complex set of feelings and attitudes that motivate aggressive and often vindictive behavior," (Spielberger, 1988, p. 6). Key components of this definition are cynicism, mistrust, and denigration (Miller, Smith, Turner, Guijarro, & Hallet, 1996). Anger is defined as a multidimensional construct. Anger and hostility have also been found to mediate the relationship between witnessing parental violence and dating violence perpetration in adulthood (Clarey, Hokoda, & Ulloa, 2010). That is, experiencing conflict may trigger memories of familial violence and arouse anger, leading to aggression. Boivin and colleagues (2012) sampled ($n = 1,347$) teens and found that, for girls, hostility significantly mediated the relationship between dating violence in a previous relationship and physical violence in their current relationship. It was expected that anger and hostility would have a stronger association with female-to-male unidirectional violence as compared to bidirectional violence.

Psychological aggression. Among all the predictors believed to lead to female-to-male dating violence, perhaps the most common and consistent predictor is psychological aggression. Sometimes referred to as emotional abuse, psychological aggression is defined as any words or actions used with the intent to cause psychological harm. Such acts include threats of violence, calling derogatory names, belittling, and intimidation. Psychological aggression has been understudied relative to physical violence, because it is often deemed not as detrimental to one's physical health; however, self-reports and longitudinal research show that psychological abuse can be just as harmful as physical aggression with mental health outcomes and physiological complaints reported (O'Leary, 2015). Upwards of 70-80% of female respondents report psychological aggression in their relationships (Black et al., 2010; Jose & O'Leary, 2009; Shorey et al., 2008; Testa et al., 2011). Although psychological aggression is more prevalent than physical violence, it correlates strongly with physical aggression in both community-based and clinical samples (Capaldi & Crosby, 1997; O'Leary & Mauiero, 2001). Psychological aggression also predicts physical violence longitudinally, (Schumacher & Leonard, 2005) suggesting a general escalation of aggression within the couple over time. Testa and colleagues (2011) categorized female students into nonviolent, unidirectionally violent, and bidirectionally violent, and measured their violence at two time points over the course of one year. Controlling for their reported violence at Time 1, psychological aggression was the only predictor of physical aggression at T2. A limitation of the Testa et al. study; however, was that they compared each of the violent groups to the nonviolent, but not to each other. Although psychological aggression is a consistent predictor of physical aggression, whether psychological aggression differentially predicts specific categories of female-perpetrated violence is not known.

Emotion dysregulation. Emotion regulation is defined as the awareness and understanding of one's emotions, accepting them, and being able to control one's impulses and behaviors when experiencing negative emotions (Gratz & Roemer, 2004); therefore, emotion dysregulation represents the inability to understand and control one's emotions. Emotion regulation has been negatively associated with both psychological (e.g., Harper et al., 2005) and physical aggression (e.g., Bliton et al., 2015). In a study comparing perpetration of dating violence among a sample of college students, emotion regulation emerged as a significant correlate of violence for females. Specifically, a lack of emotional awareness and being able to control impulsive emotions contributed to female-to-male violence, but not male-to-female (Bliton et al., 2015). Other studies have similarly found support for the link between emotion dysregulation, specifically, failure to control impulses, and female-perpetrated aggression (Gratz & Roemer, 2004; Shorey et al., 2011a,b). When combined with anger, the effect on physical aggression can be even stronger. Shorey and colleagues (2011b) found a strong association between emotion regulation and female-perpetrated aggression that was mediated by trait anger. Although emotion regulation appears to be consistently related to female-perpetrated aggression, it is unclear whether it operates differently for unidirectional and bidirectional partner violence.

Study Purpose

The purpose of the study was to identify variables that predict dating violence perpetration among a sample of women in dating relationships. Furthermore, these variables were examined to determine whether they increased the likelihood of unidirectional intimate partner violence compared to bidirectional intimate partner violence. Given that research shows that IPV peaks in young adulthood (Straus 2004, 2008), the present study focused on college students. A sample of college adult women in serious, heterosexual dating relationships

completed an anonymous survey reporting on aspects of their childhood, their own self-reported levels of physical violence, and that of their partner, along with other variables of interest.

Aim 1. To determine the variables that uniquely and significantly predict the likelihood of physical perpetration in dating relationships. As dictated by the literature, key variables were examined based on the social learning theory (e.g., child abuse and witnessing parental violence), the developmental perspective (e.g., early aggressive behavior and adolescent dating violence), and the psychopathological perspective (e.g., anger, hostility, alcohol problems, psychological aggression, and emotion dysregulation).

Hypothesis 1a. An increase in experiencing physical child abuse would increase the odds of reported dating violence perpetration.

Hypothesis 1b. An increase in witnessing mother-to-father perpetration would increase the odds of dating violence perpetration.

Hypothesis 1c. An increase in witnessing father-to-mother perpetration would increase the odds of dating violence perpetration.

Hypothesis 1d. An increase in early aggressive behavior would increase the odds of dating violence perpetration.

Hypothesis 1e. An increase in experiencing dating violence in one's first serious relationship in adolescence would increase the odds of dating violence perpetration.

Hypothesis 1f. An increase in anger would increase the odds of dating violence perpetration.

Hypothesis 1g. An increase in hostility would increase the odds of dating violence perpetration.

Hypothesis 1h. An increase in alcohol problems would increase the odds of dating violence perpetration.

Hypothesis 1i. An increase in psychological aggression would increase the odds of dating violence perpetration.

Hypothesis 1j. An increase in emotion dysregulation would increase the odds of dating violence perpetration.

Aim 2. To determine and identify the variables that differentially predict unidirectional violence compared to bidirectional violence. Examining these differences may advance our knowledge and understanding of the dynamics of intimate relationship in which violence occurs and, thereby, help prevent the initiation and continuation of abusive relationships. With these considerations, the proposed study attempted to identify predictors of female-to-male perpetrated violence and establish the links that may be stronger for unidirectional violence as compared to bidirectional violence.

Hypothesis 2a. An increase in experiencing physical child abuse would decrease the odds of unidirectional violence compared to bidirectional violence.

Hypothesis 2b. An increase in witnessing mother-to-father perpetration would increase the odds of unidirectional violence.

Hypothesis 2c. An increase in witnessing father-to-mother perpetration would increase the odds of unidirectional violence.

Exploratory Hypothesis 2d. An increase in early aggressive behavior was expected to be a significant predictor of perpetration, but it was unknown how it would differentially predict the dyads.

Exploratory Hypothesis 2e. An increase in adolescent dating violence was expected to be a significant predictor of perpetration, but it was unknown how it would differentially predict the dyads.

Hypothesis 2f. An increase in anger would increase the odds of unidirectional violence.

Hypothesis 2g. An increase in hostility would increase the odds of unidirectional violence.

Hypothesis 2h. An increase in alcohol problems would increase the odds of unidirectional violence.

Exploratory Hypothesis 2i. An increase in psychological aggression was expected to be a significant predictor of perpetration, but it was unknown how it would differentially predict the dyads.

Exploratory Hypothesis 2j. An increase in emotion dysregulation was expected to be a significant predictor of perpetration, but it was unknown how it would differentially predict the dyads.

CHAPTER II

METHOD

Participants

Participants were recruited from a large southeastern university. The participating university is diverse in regard to race and ethnicity, and sampling from the Department of Psychology yields a sampling pool that is over 80% women. Since this study targeted women who report violence in their current or recent relationship, the author recruited from the psychology research pool and campus wide. Inclusion criteria for the study were (1) must be a woman, (2) between 18 and 29 years old, (3) involved in a current, heterosexual relationship lasting at least 3 months. However, it is possible that only targeting women in a current relationship in which violence is present might skew the sample. That is, some relationships with violence may have ended. For this reason, participants could participate if they had been in a relationship within the past year in which violence was present. A decision was made to include relationships within 12 months, as recall for relationships that occurred more than 12 months ago could be a concern. Participants in the Department of Psychology research pool were given research credit in exchange for participation; non-psychology students were entered into several raffles for cash prizes.

The initial sample included $N = 1169$ women. Data from $n = 126$ women were excluded because they were younger than 18 years of age or older than 29 year of age. Additionally, $n = 52$ self-identified as homosexual. Given the study focus on heterosexual violence in dating couples, data from these participants were excluded. Being in a current, serious relationship was a criterion for participating; $n = 79$ women indicated they were not in a current relationship, had not been in a relationship in the previous 12 months, or reported being in a dating relationship

less than 3 months. Data from these 79 women were also excluded from analyses. The final sample included $N = 912$ women, aged 18 – 29 years old ($M = 20.49$, $SD = 2.54$), mostly Caucasian (44%) or African American (35.9%). The majority of respondents categorized their relationship status as dating one person exclusively (57.4%), followed by single (but reported relationship in previous 12 months; (27.1%), married (7.2%), cohabitating (4.9%), or engaged (3.3%). The length of the reported relationship ranged from 3 months to 14 years, with a median length of 17.5 months. The majority of relationships (64.4%) were less than 2 years.

Measures

Dating violence perpetration. To measure dating violence, the Revised Conflict Tactics Scales-2 was administered (CTS2; Straus et al. 1996). The CTS2 is a 78-item questionnaire that assesses Physical Assault, Injury, Psychological Aggression, Negotiation, and Sexual Coercion. Physical partner violence was assessed using only the Physical Assault (12 items; e.g., “*I slammed my partner up against a wall.*”) and Injury (6 items; e.g., “*My partner went to a doctor because of a fight with me.*”) subscales from the CTS2 (see Appendix G). The Physical Assault and Injury subscales each demonstrated good reliability; Cronbach’s alphas were .82 and .81, respectively. Questions were asked in pairs (perpetration and victimization) so that respondents were able to report on the frequency of their own and their partner’s aggression in their current or most recent dating relationship (if that relationship ended within the past 12 months). Respondents indicated how many times an act occurred within the past 12 months, ranging from: 0 (*this never happened*) to 6 (*more than 20 times in the past year*) with an additional response of 7 (*not in that past year but it did happen before*). As suggested by Straus (1990), the frequency of violent acts was rescored as follows: never = 0; once = 1; twice = 2; 3-5 times = 4; 6-10 times

= 8; 11-20 times = 15; over 20 times = 25. In this way, scores were summed to get an overall continuous measure of dating violence prevalence.

Childhood physical abuse. Childhood physical abuse was measured using the Exposure to Abusive and Supportive Environments Parenting Inventory (EASE-PI; Nicholas & Bieber, 1997). The EASE-PI is a widely used measure to assess the frequency of retrospective negative and positive interactions with parents during childhood. For the purpose of the present study, only the Physical Abusiveness subscale was used to assess experiences of child physical abuse (see Appendix A). This subscale demonstrated good reliability, $\alpha = .79$. Using a 5-point Likert scale from 0 (*Never*) to 4 (*Very Often*), participants reported how often they had experienced 13 specific types of aggressive behaviors (e.g., “*Your parent kicked you*” or “*Your parent threw things at you*”) from their mother or father figure during childhood. Item scores were summed to create a total physical child abuse score with higher scores representing greater levels of aggression.

Interparental violence. To assess participants’ exposure to interparental violence, the Interparental Version Revised Conflict Tactics Scale was administered (CTS2-CA, Straus, 2000; Appendix B). The CTS2-CA assesses violence perpetration between parents. For the purpose of the present study, participants completed the (1) Physical Assault and (2) Injury CTS2-CA subscales, each demonstrating good reliability, $\alpha = .78$ and $\alpha = .85$, respectively. Each item was repeated twice so that respondents reported mother-to-father and father-to-mother behavior. A sample Physical Assault item is (e.g., “*My mother pushed or shoved my father*”); and Injury (e.g., “*My father felt physical pain that still hurt the next day because of a fight with my mother*”; (64 total items, see Appendix B). Respondents reported the frequency of mother-to-father and father-to-mother perpetrated acts, using the following response scale: 0 (*This has never*

happened), 1 (*Once*), 2 (*Twice*), 3 (*3-5 times*), 4 (*6-10 times*), 5 (*11-20 times*), 6 (*More than 20 times*), and 7 (*I'm not sure*). As suggested by Straus, item scores were rescored to reflect mid-points prior to summing item scores to create a total score for mother-to-father violence and father-to-mother violence, higher scores representing witnessing more interparental physical violence.

Early aggressive behavior. To measure early aggressive behavior, The Aggression Scale was administered (Orpinas & Frankowski, 2001). The Aggression Scale is an 11-item measure that assesses youth violence during early adolescence (see Appendix C). In the current study, internal consistency was good, $\alpha = .83$. Respondents indicated how often aggressive acts took place during early adolescence (between ages 12 and 16) on a rating scale from 0 (*0 times*) to 6 (*6 or more times*). Item scores were summed, with higher scores reflecting greater aggression reported during early adolescence. Sample items include: “*I teased students to make them angry*,” “*I fought back when someone hit me first*,” and “*I pushed or shoved other students*.”

Adolescent dating violence. Victimization and perpetration in early dating relationships was assessed using the Conflict in Adolescent Dating Relationships Inventory (CADRI; Wolfe, et al., 2001; see Appendix D). The CADRI is a well-established measure of adolescent dating violence and contains five subscales: Physical Abuse, Verbal or Emotional Abuse, Threatening Behavior, Relational Aggression, and Sexual Abuse. For the purpose of this study, the Physical Abuse (4 items; e.g., “*My partner threw something at me*”), and Verbal/Emotional Abuse (10 items; e.g., “*My partner ridiculed or made fun of me in front of others*”) were utilized since they are the types of violence of focus. Each of these subscales demonstrated adequate reliability, $\alpha = .72$ and $\alpha = .74$, respectively. Participants were asked to reflect on their first serious relationship

in adolescence. They indicated the frequency of perpetrating or being victimized by certain behaviors on a 4-point response scale, ranging from Never (*this has never happened in your relationship*) to Often (*this happened 6 or more times in your relationship*). All items were summed for each subscale, with higher scores corresponding to higher levels of violence. Physical and Verbal Abuse were combined to represent overall dating violence during adolescence.

Emotion dysregulation. To assess emotion participants' emotion regulation, the Difficulties in Emotion Regulation Scale was administered (DERS; Gratz & Roemer, 2004). The DERS is a 36-item questionnaire, comprised of six subscales (see Appendix E). The following six subscales have demonstrated good reliability (Cronbach's alphas included with each subscale): Non-acceptance of Emotional Responses (e.g., "*When I'm upset, I feel guilty for feeling that way;*" $\alpha = .91$, 6 items), Difficulties Engaging in Goal-Directed Behavior (e.g., "*When I'm upset, I have difficulty concentrating,*" $\alpha = .87$; 5 items), Impulse Control Difficulties (e.g., "*When I'm upset, I lose control over my behaviors,*" $\alpha = .87$; 6 items), Lack of Emotional Awareness (e.g., "*I am attentive to my feelings,*" $\alpha = .80$; 6 items), Limited Access to Emotion Regulation Strategies (e.g., "*When I'm upset, I believe that I'll end up feeling very depressed,*" $\alpha = .89$; 8 items), and Lack of Emotional Clarity (e.g., "*I have difficulty making sense out of my feelings,*" $\alpha = .79$; 5 items). Participants rated their agreement to each statement on a 5-point scale ranging from 1 (*almost never*) to 5 (*almost always*). Item scores were summed to create an overall score for emotion dysregulation (Cronbach's $\alpha = .82$), with higher scores representing greater difficulties with emotion regulation (Gratz & Roemer, 2004).

Psychological aggression. The current study measured psychological aggression using the Multidimensional Measure of Emotional Abuse scale (MMEA; Murphy & Hoover, 2001).

The MMEA scale is a 28-item scale measuring emotional or psychological aggression in dating relationships (see Appendix F). The MMEA has four subscales: Restrictive Engulfment, (7 items, e.g., *“Complained partner spends too much time with friends”*), Denigration, (7 items, e.g., *“Called partner worthless”*), Hostile Withdrawal, (7 items, e.g., *“Refused to discuss the problem”*), and Dominance/Intimidation, (7 items, e.g., *“Intentionally destroyed belongings”*). Participants were directed to rate the frequency with which each item occurred in the past 12 months, in regards to their own perpetration and that of their partner, using the following response scale: 0 (*this never happened*) to 6 (*more than 20 times in the past year*) with an additional response of 7 (*not in the past 6 months, but it has happened before*). The frequency of psychologically aggressive acts was re-scored by taking the midpoint as follows: never = 0; once = 1; twice = 2; 3-5 times = 4; 6-10 times = 8; 11-20 times = 15; over 20 times = 25. These scores were summed to reflect an overall score of the occurrence of psychological aggression in the relationship. Cronbach’s $\alpha = .80$ in the present study.

Anger and hostility. The current study measured anger and hostility using the Buss Perry Aggression Questionnaire (BPAQ; Buss & Perry, 1992). The BPAQ is a 29-item measure consisting of four scales that assess Anger, Hostility, Verbal Aggression, and Physical Aggression (see Appendix H). For the purposes of this study, only the subscales of Anger (8 items; $\alpha = .78$) and Hostility (8 items, $\alpha = .86$) were utilized. Respondents rated how characteristic each item is of them on a 7-point scale with higher scores reflecting greater anger and hostility. Sample Anger items include: *“When frustrated, I let my irritation show,”* and *“Sometimes I fly off the handle for no reason.”* Sample Hostility items include: *“I am sometimes eaten up with jealousy,”* and *“I wonder why sometimes I feel so bitter about things.”*

Alcohol problems. To measure alcohol problems, the Brief Young Adult Alcohol Consequences Questionnaire was administered to respondents (B-YAACQ; Kahler, Strong, & Read, 2005). The B-YAACQ is a widely used 24-item measure that assesses the amount of alcohol problems as a result of drinking (see Appendix I). Participants endorsed consequences from their own alcohol consumption, such as: “*I have found it difficult to limit how much I drink,*” “*I have passed out from drinking,*” and “*I have become very rude, obnoxious, or insulting after drinking.*” Each question was scored on a Yes/No format, where affirmative responses were assigned a “1”. Item scores were summed to reflect the frequency of alcohol problems experienced in the past 30 days. Previous research has justified the scoring of alcohol-related problems measures dichotomously (e.g., Martens, Neighbors, Dams-O’Connor, Lee, & Larimer, 2007).

Demographics questionnaire. Each participant was given a general background questionnaire with demographic questions pertaining to inclusion criteria, that is, age, relationship status, length of current/most recent dating relationship, living arrangements, gender, race/ethnicity, and family history (see Appendix J).

Procedure

The study was an anonymous online survey, and participation was voluntary. The study was conducted in accordance with the code of ethics of the American Psychological Association and approved by the College Human Subjects Committee at Old Dominion University prior to data collection. To recruit subjects, a description of the study was posted on an online psychology research website. Respondents first read a brief screening questionnaire: 1) are you a woman, 2) are you between the ages of 18 and 29, and 3) are you currently in a dating relationship or have you been in a dating relationship within the past 12 months? If potential

subjects answered affirmatively to each of these questions, they were asked to read a detailed description of the study, including the study's risks and benefits. They noted that they understood their study involvement and then consented to participate. Participants were directed to a separate link to complete the anonymous survey, which lasted approximately 45 minutes. After completing the survey, participants were redirected to a separate website where they input information into a database to receive extra credit in their psychology courses for their participation; however, their identity was not be linked to the data. Due to the sensitive nature of the questions, participants had the option to refuse to answer any question they did not feel comfortable answering. In addition, upon completion, resources were listed at the end of the survey in the event that the participant wanted to speak to a mental health professional after completing the study.

CHAPTER III

RESULTS

Dating violence perpetration was measured using self-reported responses to the CTS Physical Assault and Injury subscales. The variable (acts of perpetration) was positively skewed with $n = 559$ respondents indicating no acts of perpetration and $n = 353$ respondents indicating at least one act, see Figure 1 for a histogram. Because of the skew, respondents were then categorized into one of four groups. The purpose of the categorization was to place respondents into groups based on previous relationship violence. Specifically, responses to the CTS subscale items were dichotomized into “0” (*never occurred*) and “1” (*occurred at least one time*) representing whether violence had taken place in their current relationship. These dichotomizations were then recategorized into the four groups as follows: “0; non-violent” ($n = 511$; reported neither perpetration nor victimization), “1; unidirectional perpetration” ($n = 88$; reported at least one act of perpetration but no victimization), “2; bidirectional perpetration” ($n = 235$, reported both perpetration and victimization), and “3; unidirectional victimization” ($n = 51$, reported victimization but no perpetration). Of the total sample, 120 participants had missing data on one or more items from the CTS2 Physical Assault and Injury subscales. Data from these respondents were manually inspected and categorized into their respective groups based on their responses to like items. If a participant indicated perpetrating violence on some items but left one question blank, they were coded as a perpetrator. If a participant indicated no perpetration but left any questions blank, they were excluded from primary analyses ($n = 27$), as it was unclear if they could be classified as a perpetrator. For the purpose of this study, the victimization-only group was excluded from analyses because the scope of the study focused on factors predicting perpetration. Missing data were less than 5% on all relevant variables and were imputed using Maximum Likelihood estimation methods. After missing data were imputed,

composite (i.e., summary) scores were computed and used for further analyses. Descriptive tables (Tables 1 – 4) provide means and standard deviations for all variables of interest, separated by categorized violent group.

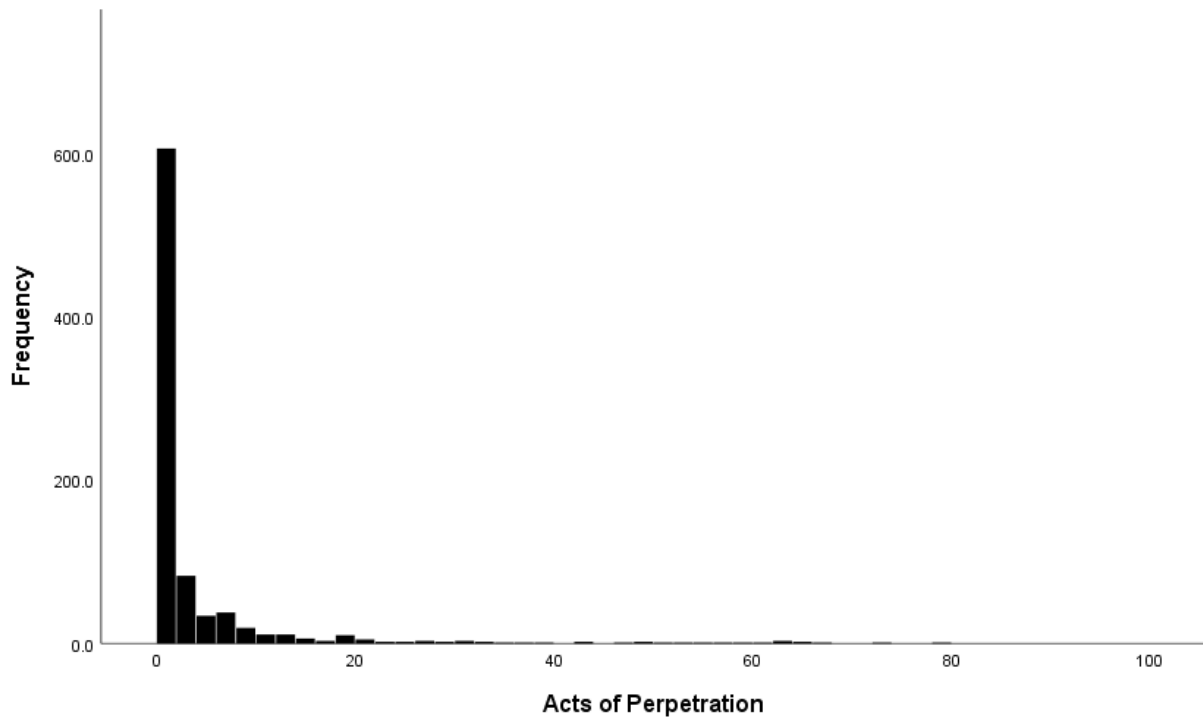


Figure 1. Histogram of total acts of perpetration.

Table 1

Descriptive Statistics for All Participants

Variable	<i>N</i>	<i>Mean</i>	<i>SD</i>	Scale Minimum	Scale Maximum	Group Minimum	Group Maximum
Child Abuse- Mother	912	44.59	19.89	32	160	32	160
Child Abuse- Father	912	41.13	16.24	32	160	32	160
Emotion Dysregulation	912	101.45	10.79	36	180	56	148
Alcohol Problems	909	28.14	4.86	24	48	1	48
Psychological Aggression	912	44.83	62.64	0	700	0	500
Anger	912	14.81	7.87	6	42	6	42
Hostility	912	20.32	10.92	8	56	8	56
Early Aggressive Behavior	911	18.96	31.61	0	275	0	275
Adolescent Dating Violence	517	109.93	54.89	0	700	0	348
Parental Violence- M	819	9.77	33.14	0	800	0	350
Parental Violence- F	823	12.35	43.87	0	800	0	425

Table 2

Descriptive Statistics for Non-violent Participants

Variable	<i>N</i>	<i>Mean</i>	<i>SD</i>	Scale Minimum	Scale Maximum	Group Minimum	Group Maximum
Child Abuse- Mother	511	42.45	17.63	32	160	32	144
Child Abuse- Father	511	40.63	15.39	32	160	32	160
Emotion Dysregulation	511	100.55	10.03	36	180	70	148
Alcohol Problems	509	27.50	4.59	24	48	1	48
Psychological Aggression	511	24.32	33.88	0	700	0	300
Anger	511	13.76	7.48	6	42	6	42
Hostility	511	18.74	10.44	8	56	8	56
Early Aggressive Behavior	511	16.89	29.93	0	275	0	250
Adolescent Dating Violence	286	99.62	47.38	0	700	0	348
Parental Violence- M	470	6.26	25.52	0	800	0	321
Parental Violence- F	464	8.33	36.91	0	800	0	425

Table 3

Descriptive Statistics for Unidirectionally Violent Participants

Variable	<i>N</i>	<i>Mean</i>	<i>SD</i>	Scale Minimum	Scale Maximum	Group Minimum	Group Maximum
Child Abuse- Mother	88	44.55	17.98	32	160	32	106
Child Abuse- Father	88	40.83	17.58	32	160	32	131
Emotion Dysregulation	82	8.46	26.91	36	180	79	136
Alcohol Problems	80	10.81	43.82	24	48	24	43
Psychological Aggression	88	21.72	36.22	0	700	0	316
Anger	46	111.36	41.57	6	42	6	39
Hostility	88	101.89	10.22	8	56	8	45
Early Aggressive Behavior	88	27.96	4.31	0	275	0	200
Adolescent Dating Violence	88	65.32	61.44	0	700	36	196
Parental Violence- M	88	15.80	8.01	0	800	0	223
Parental Violence- F	88	19.57	9.04	0	800	0	262

Table 4

Descriptive Statistics for Bidirectionally Violent Participants

Variable	<i>N</i>	<i>Mean</i>	<i>SD</i>	Scale Minimum	Scale Maximum	Group Minimum	Group Maximum
Child Abuse- Mother	235	48.32	23.82	32	160	32	160
Child Abuse- Father	235	42.11	17.11	32	160	32	150
Emotion Dysregulation	200	20.27	50.21	36	180	56	143
Alcohol Problems	211	23.06	57.73	24	48	24	48
Psychological Aggression	234	23.30	34.81	0	700	0	500
Anger	145	134.42	67.88	6	42	6	42
Hostility	235	103.27	12.44	8	56	8	56
Early Aggressive Behavior	234	29.85	5.45	0	275	0	275
Adolescent Dating Violence	235	88.64	88.55	0	700	0	348
Parental Violence- M	235	17.09	8.35	0	800	0	350
Parental Violence- F	235	23.81	11.75	0	800	0	350

Bivariate Correlations by Group

Bivariate correlations were conducted among all study variables of interest. Specifically, with dating violence coded dichotomously (0 = bidirectional violence, 1 = unidirectional violence), the output was split by group and analyzed with bivariate correlations to understand how the predictors of interest were associated for each group (see Tables 5 and 6).

Some interesting bivariate differences emerged between the two dyadic classifications, unidirectional violence and bidirectional violence (see Tables 5 and 6). There were significant relationships among early childhood violence variables (child abuse, interparental violence, and early aggressive behavior) in both groups. For example, interparental violence (mother-to-father violence and father-to-mother violence) was strongly correlated for the bidirectional violence group ($r = .69$) compared to the unidirectional violence group ($r = .36$), both producing large effect sizes between the variables. Additionally, mother-to-child violence was significantly correlated with mother-to-father violence for both the unidirectional groups ($r = .43$) and the bidirectional group ($r = .35$). Similarly, father-to-child violence was significantly correlated with father-to-mother violence for the unidirectional group ($r = .55$) and the bidirectional group ($r = .35$). The effect sizes for the parent-to-parent violence and parent-to-child violence relationships were larger for the unidirectional violent group compared to the bidirectional violent group. There were also significant strong associations between child abuse by the mother or the father and early aggressive behavior. Mother-to-child violence significantly correlated with early aggressive behavior for the unidirectional violence group ($r = .51$), producing a large effect size, as well as a medium effect size in the bidirectional violence group ($r = .19$). Likewise, father-to-child violence also significantly correlated with early aggressive behavior for the unidirectionally-violent group ($r = .47$) and the bidirectionally violent group ($r = .25$). The effect

sizes for parent-to-child violence and early aggressive behaviors relationships were each larger for the unidirectional violent group compared to the bidirectional violent group.

Logistic Regression Models

Assumption testing. To test the hypotheses that examine what variables predicted unidirectional violence versus bidirectional violence, a series of binary logistic regression analyses were conducted. Prior to running the analyses, key assumptions were checked. The bivariate correlation coefficients were inspected to ensure there were no suspected issues of multicollinearity (i.e., highly related independent variables with a correlation greater than $r = .70$). There was one marginally high bivariate relationship ($r = .69$) between mother-to-father and father-to-mother perpetrated violence among participants categorized in the bidirectionally violent group. The decision was made to leave these variables as is when specifying the logistic regression models.

A second, and primary, assumption of binary logistic regression modeling is that the model is correctly specified. This includes verifying that a) relevant variables are included in the model, b) extraneous variables are excluded from the model (as they can lead to suppressor effects). An extraneous variable is one that has no significant relationship with the dependent variable. Therefore, prior to running the primary logistic regression models, the zero-order relationships were individually examined to determine whether to include it in the final model. The results of that process are discussed further below.

Table 5

Bivariate Correlations of Variables of Interest for Bidirectionally Violent Participants

	1	2	3	4	5	6	7	8	9	10	11
1. Child Abuse-M	--	.418**	.098	.093	.180**	.224**	.240**	.190**	.163*	.346**	.394**
2. Child Abuse- F		--	.080	.118*	.166**	.142*	.222**	.248**	.081	.156*	.349**
3. Emotion Dysregulation			--	.092	.138*	.283**	.297**	.208**	.202**	-.031	.093
4. Alcohol Problems				--	.191**	.226**	.144*	.014	.079	.052	.160*
5. Psychological Aggression					--	.344**	.341**	.258**	.235**	.184**	.193**
6. Anger						--	.629**	.321**	.181*	.108	.173**
7. Hostility							--	.249**	.199**	.103	.210**
8. Early Agg Behavior								--	.119	.009	.115
9. Adolescent Dating Violence									--	.087	.102
10. Parental Violence- M										--	.687**
11. Parental Violence- F											--

Table 6

Bivariate Correlations of Variables of Interest for Unidirectionally Violent Participants

	1	2	3	4	5	6	7	8	9	10	11
1. Child Abuse- M	--	.554**	.276**	.304**	.188	.142	.239*	.507**	.212	.432**	.406**
2. Child Abuse- F		--	-.020	.229*	.081	.116	.140	.473**	.352**	.113	.553**
3. Emotion Dysregulation			--	-.003	.055	.260*	.248*	.156	.169	.083	-.210*
4. Alcohol Problems				--	.193	.058	.058	.268**	.069	.372**	.268*
5. Psychological Aggression					--	.264**	.233*	.302**	.273*	.135	.084
6. Anger						--	.480**	.288**	.232	-.077	-.170
7. Hostility							--	.315**	.094	-.098	-.043
8. Early Agg Behavior								--	.306*	.284**	.338**
9. Adolescent Dating Violence									--	.100	.136
10. Parental Violence- Mother										--	.358**
11. Parental Violence- Father											--

Predicting perpetration. In the first logistic regression analysis, the dependent variable was dating violence perpetration with no violence coded as the reference group (0) and any indicated perpetration as the comparison group (1). All key variables significantly (zero-order) predicted the dependent variable and were thus included in the model. The initial model included all variables using an enter method of entry, see Table 7. In this model, the variables adolescent dating violence and psychological aggression significantly predicted the likelihood of perpetration. Specifically, an increase in each of these variables increased the likelihood of reporting perpetration, compared to no perpetration.

Because there was theoretical interest in examining the combined effect of the psychopathological variables above and beyond the effect of the social learning variables, a second logistic regression model was created using a blocked design with a forward stepwise likelihood ratio method of entry. In the first block, the social learning variables were entered (child abuse by mother, child abuse by father, mother-to- father violence, father- to- mother violence, early aggressive behavior, and adolescent dating violence) followed by the psychopathological variables in the second block (emotion dysregulation, anger, hostility, psychological abuse, and alcohol problems). The omnibus chi-square test (which tests the null hypothesis that there is no association between the predictors and the outcome) revealed good model fit, $\chi^2(4) = 137.18, p < .001$. A secondary model fit index, the Hosmer and Lemeshow Test (which tests the null hypothesis that the model is a good fit for the data) confirmed that the overall model adequately fit the data, $\chi^2(8) = 6.22, p = .62$.

Table 7

Full Logistic Regression Model Predicting Dating Violence Perpetration

Variable	<i>B</i>	<i>SE</i>	<i>OR</i>
Constant	-2.313**	.839	.099
Child Abuse- Mother	.007	.008	1.007
Child Abuse- Father	.001	.010	1.001
Early Aggressive Behavior	-.007	.005	.993
Adolescent Dating Violence	.005*	.002	1.005
Parental Violence- Mother	.006	.005	1.006
Parental Violence- Father	.005	.004	1.005
Emotion Dysregulation	-.003	.006	.997
Alcohol Problems	-.022	.030	.979
Psychological Aggression	.017***	.003	1.017
Anger	.008	.019	1.008
Hostility	-.015	.014	.985

Note. Dependent variable coded: 0 = no violence, 1 = any reported perpetration

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

As shown in Table 8, interparental violence perpetrated by the mother, adolescent dating violence, emotion dysregulation, and psychological abuse each significantly and uniquely predicted dating violence perpetration. Specifically, controlling for other variables in the model, as mother-to-father violence scores increased, the probability of dating violence perpetration (compared to no violence) increased [odds ratio = 1.010 (95% CI: 1.003, 1.018)]. To better

understand these odds ratios, conditional probabilities were calculated. When mother-to-father perpetrated violence is lower than average (one standard deviation below average), 36% of women are predicted to be perpetrators. This probability increases to as much as 53% when reported mother-to-father violence is high (one standard deviation above average). This means that the relative risk of women reporting witnessing higher levels of mother perpetrated violence is 1.47 times higher than those witnessing low levels. Similarly, after controlling for other variables in the model, increases in scores for adolescent dating violence were associated with increased probability of dating violence perpetration [odds ratio = 1.006 (95% CI: 1.002, 1.010)]. Specifically, when reporting high amounts of adolescent dating violence (one standard deviation above average), 56% of participants are predicted to be perpetrators compared to low levels of adolescent violence (33%). This equates to a relative risk factor of 1.70. Emotion dysregulation, the inability to control and manage one's emotions, emerged as a unique and significant predictor of perpetration, [odds ratio = .010 (95% CI: .003, .017)]. As expected, higher levels of emotion dysregulation predicted a higher amount of perpetration (52%) compared to low levels of emotion dysregulation (36%), equating to a relative risk factor of 1.44. Lastly, at higher levels of psychological aggression, controlling for other variables in the model, the probability for perpetration increased, [odds ratio = 1.021 (95% CI: 1.016, 1.026)]. Psychological aggression appeared to be the strongest predictor of perpetration. When psychological aggression is one standard deviation above the mean, 76% of participants are predicted to be perpetrators of violence. At one standard deviation below the mean, 18% of participants are expected to report dating violence. Comparing these predicted probabilities equates to a relative risk of 4.22, meaning that as psychological aggression increases from one standard deviation below the mean to one standard deviation above the mean of psychological aggression, participants are 4.22

times more likely to be perpetrators of physical violence. See Figure 2 for a summary of the conditional probabilities of the key variables that significantly predicted perpetration.

Table 8

Final Trimmed Logistic Regression Model Predicting Dating Violence Perpetration

Variable	Model 1			Model 2		
	<i>B</i>	<i>SE</i>	<i>OR</i>	<i>B</i>	<i>SE</i>	<i>OR</i>
Constant	-1.719	.231	.179	-.283	.991	.754
Parental Violence- Mother	.013***	.004	1.013	.010**	.004	1.010
Adolescent Dating Violence	.008***	.002	1.008	.006**	.002	1.006
Emotion Dysregulation				.020*	.010	.980
Psychological Abuse				.021***	.003	1.021

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

Unidirectional versus bidirectional violence. The second logistic regression analysis distinguished the two groups of perpetrators and predicted the likelihood of unidirectional violence (1) compared to bidirectional violence (0). The purpose of this analysis was to determine which individual variables predicted the likelihood of unidirectional violence as compared to bidirectional violence. To ensure the model was correctly specified, each variable was individually examined as it predicted the dependent variable. The following independent variables had non-significant zero-order relationships with the dependent variable and were thus excluded from the model: child abuse perpetrated by the father, emotion dysregulation, and early aggressive behavior. A blocked design with a forward stepwise method of entry for each block

was used. The social learning variables were entered in the first step (childhood abuse perpetrated by the mother, interparental violence, and adolescent dating violence). In the second step, the individual-level proximal variables were entered (anger, hostility, alcohol problems, and, psychological aggression). This method of entry tested the effect of the psychopathological variables in explaining unidirectional violence above and beyond the social learning variables.

Omnibus model fit indices suggest that the final model predicting unidirectional violence fits the data well, $\chi^2(2) = 16.83, p < .001$. Additionally, the non-significant Hosmer and Lemeshow Test show the model is a good fit for the data, $\chi^2(8) = 8.99, p = .343$. When examining the individual predictors, none of the social learning predictors entered in Step 1 significantly predicted the probability of unidirectional violence. As shown in Table 9, the final model predicting the probability of unidirectional violence consists of two psychopathological variables: hostility and alcohol problems. Interpretation of these coefficients show that, while controlling for other variables, as alcohol problems scores increase, the likelihood of unidirectional violence, compared to bidirectional violence, decreases [odds ratio = .936 (95% CI: .884, .992)]. Specifically, when the reported number of alcohol problems are one standard deviation below average, 51.9% of participants are predicted to report unidirectional violence. When the reported alcohol problems are higher than average, the predicted probability of unidirectional violence decreases to 34.5%. Or, in other words, alcohol problems increased the occurrence for bidirectional violence. Additionally, when hostility is lower than average, 77.6% of women are predicted to report unidirectional violence. But as hostility increases above average, the probability of unidirectional violence decreases to 59.2% [odds ratio = .964 (95% CI: .940, .988)], meaning that hostility increased the likelihood for bidirectional violence. A graphic representation of these conditional probabilities is reported in Figure 3. To summarize,

those participants who reported higher hostility and more alcohol problems were significantly less likely to engage in unidirectional violence as compared to bidirectional violence.

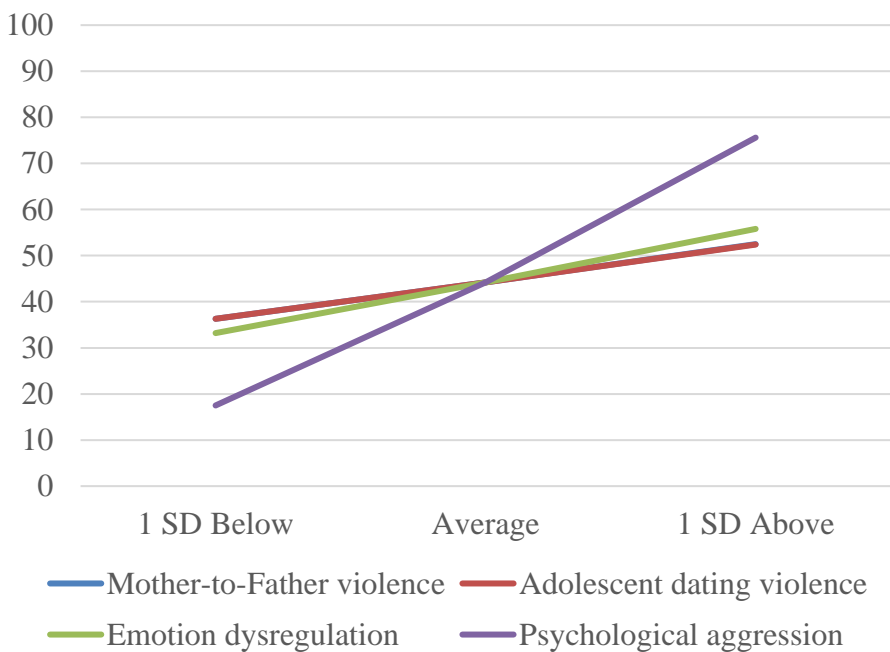


Figure 2. Conditional probabilities predicting dating violence perpetration.

Table 9

Logistic Regression Analysis Predicting Unidirectional Dating Violence Perpetration

Variable	Model 1			Model 2		
	<i>B</i>	<i>SE</i>	<i>OR</i>	<i>B</i>	<i>SE</i>	<i>OR</i>
Constant	-.991	.127	.371	1.687	.855	5.404
Alcohol Problems				-.066*	.029	.936
Hostility				-.037**	.013	.964

Note. * $p < .05$, ** $p < .01$

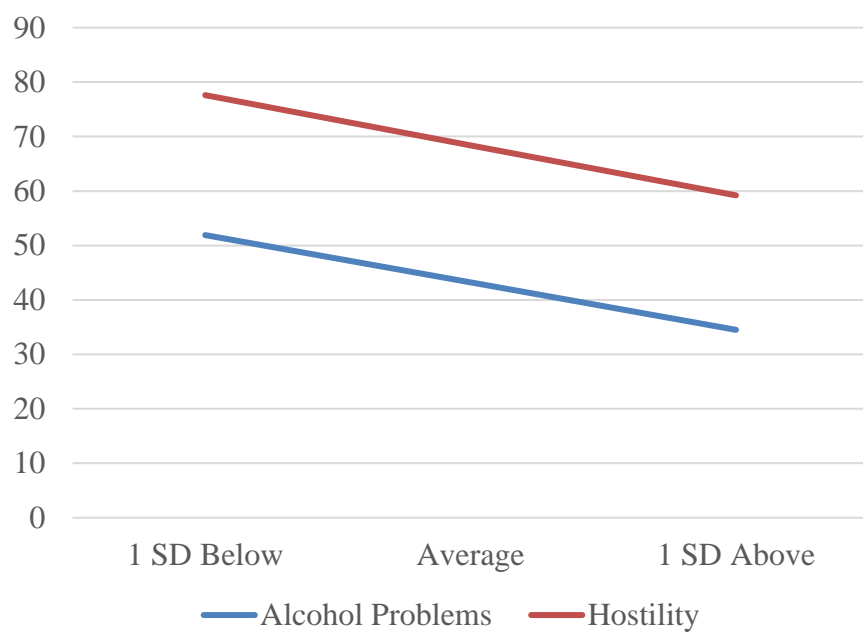


Figure 3. Conditional probabilities predicting unidirectional violence.

CHAPTER IV

DISCUSSION

The purpose of the present study was to extend our understanding of dating violence perpetrated by women. One specific aim of the study was to determine what factors would uniquely and significantly predict dating violence perpetration as compared to women who reported no dating violence in their most recent or current relationship. A secondary study aim was to examine whether variables predicting bidirectional violence would differentially explain unidirectional violence. These variables were selected based on research that used two prominent explanations (i.e., social learning theory and the psychopathology perspective) for dating violence. Social learning theory suggests that dating violence perpetration occurs as a result of experiencing and observing different forms of violence over the life course which then perpetuates a cycle of violence. The variables often implicated in social learning theory and included in the present study were parent-to-child violence, parent-to-parent violence, early aggressive behavior, and adolescent dating violence. The psychopathological perspective suggests that experiencing violence leads to the development of psychological problems that become the pathway to dating violence perpetration. The variables identified in previous research that has used this framework and included in the present study were emotion regulation, psychological aggression, anger, hostility, and alcohol problems.

The majority of participants (56.0%) reported being in a non-violent relationship. Of the respondents that reported at least one act of physical violence in their relationship (401 of total N = 912), the majority reported bidirectional perpetration (58.6%), followed by unidirectional perpetration (21.9%), and unidirectional victimization (19.5%). These prevalence rates follow

previous research, with bidirectional perpetration reported as the most common form of partner violence (Melander, Noel, & Tyler, 2010; Palmetto et al., 2013; Straus, 2008).

Overview of Findings

Two primary analyses were conducted to examine the variables that predicted perpetration. In the first logistic regression analysis, the group reporting no violence in their relationship was compared to the group reporting at least one act of physical violence (i.e., the bidirectional and unidirectional groups were combined). In the second analysis, the bidirectionally violent group was compared to the unidirectionally violent group.

Developmental and social learning variables. It was expected that observing and experiencing violence in early childhood would predict more violence perpetration. It is well documented in the literature that exposure to family violence increases the risk for subsequent dating violence; however, the mechanisms underlying this increased risk are less clear. Furthermore, few studies separate the type of family violence in the childhood home (i.e., father-to-mother and mother-to-father). Partial support was found for this theory, with interparental violence perpetrated by the mother, but not the father, predicting violence perpetration. Considering this study focused on young adult women, it is interesting to note that witnessing their mothers perpetrate violence, but not their fathers, increased their likelihood of violence perpetration as adults, suggesting that sex similarity plays an important role in the transmission of violence. Eriksson and Mazerolle (2015) examined the generational link for the transmission of violence in a sample of male arrestees. Their findings suggested that there was a cycle of violence, but it was gender-specific, such that father-to-mother violence and bidirectional violence predicted subsequent perpetration, but mother-to-father violence did not. In a related study of adolescent boys and girls, researchers found that mother-perpetrated violence predicted

dating violence for girls, and this relationship was fully mediated by attitudes accepting of violence (Temple et al., 2013). In the original social learning research, Bandura and his colleagues (1962) reported that the gender of the model, not only the observer's gender, has an impact on the amount of imitated violence. Consequently, the witnessing of one's father hitting one's mother may have a stronger relationship to domestic violence than if the family- of-origin violence involved mother-to-father violence. The findings in the current study highlight the importance of examining exposure to violence during childhood more carefully, by distinguishing which parent perpetrated violence in the childhood home.

When these variables were examined to compare the likelihood of unidirectional versus bidirectional violence, none of the variables often implicated in social learning theory were significant. Most of the social learning variables significantly correlated with each other for both dyadic groups, but they did not contribute any unique prediction of one type of violence compared to the other once controlling for other variables in the model. This finding is surprising considering the strong role that experiencing a history of violence plays on future violence perpetration (see Stith 2000, for a review). However, to best understand the relationship between the intergenerational transmission of violence and subsequent dating violence, other mediating variables need to be considered, such as cognitive processes and psychopathological problems that develop as a result of experiencing violence.

Psychopathological variables. When the psychopathological variables were considered in predicting violence perpetration compared to no violence perpetration, emotional dysregulation and psychological aggression emerged as significant predictors. These two variables consistently predict violence in the literature. Psychological aggression, or sometimes referred to as emotional abuse, is not only more prevalent in relationships than physical violence,

with upwards of 80% of respondents reporting such acts, but it typically precedes physical acts of violence in relationships (e.g., Shorey et al., 2008; Testa et al., 2011). As hypothesized in the present study, psychological aggression was the strongest predictor of perpetration, with females who reported high levels of psychological aggression, compared to low levels, being more than twice as likely to also be physically violent. However, when psychological aggression was investigated as a variable to differentiate unidirectional and bidirectional violence, no significant prediction emerged. It is possible that the comorbidity of these types of aggression (psychological and physical) is so high that there is no unique variability in the different violent dyads.

Likewise, as expected, perpetrators of violence showed lower levels of emotion regulation compared to nonviolent persons. Consistent with previous research, as emotion dysregulation increased, the likelihood for perpetration significantly increased (Bliton et al., 2015; Gratz & Roemer, 2004). It was unclear how emotion dysregulation might differentiate the two dyads, and it did not emerge as a significant predictor.

When the psychopathological variables were examined to further understand the difference between the two categories of perpetrators, hostility and alcohol problems emerged as significant predictors. An increase in each of these variables led to an increased likelihood of bidirectional compared to unidirectional violence. These findings contradict hypotheses which expected hostility and alcohol problems to predict an increase in unidirectional violence. These expectations were based on previous research demonstrating that women reporting alcohol problems were more four times more likely to perpetrate violence against their partner outside the context of a violent episode, highlighting a unidirectional pattern of violence (Fanslow, 2015).

Unidirectional versus bidirectional violence. A major goal of the study was to try to understand the dynamics that distinguished unidirectional violence from bidirectional violence. Of all the variables in the model, only hostility and alcohol problems increased the risk for bidirectional violence. These variables beg the question, is violence perpetrated by women more situational in nature? Frias (2017) found that violence perpetrated by females was often situational in nature and contained elements of control, specifically by a controlling partner. Having a male partner that was controlling increased the odds of both female-perpetrated unidirectional and bidirectional violence, compared to non-violent relationship. Johnson and colleagues (2008) created a typology of violence including intimate terrorism and situational couple violence, differentiated by the level of control exhibited in the relationship. In his review of the literature, intimate terrorism typically consisted of unidirectional violence (usually male perpetrated) motivated by high levels of coercive control, a repetitive set of tactics used to dominate the other partner. Situational couple violence, on the other hand, was more frequent but usually resulted in less severe physical violence and was characterized by lower levels of control in the relationship (Hardesty et al., 2015). For example, in the context of a violent episode, it is difficult to know the temporal sequence of events leading to the violence, whether there was alcohol involved by one or both partners, and if bidirectional violence occurred, whether it was defensive in nature. Johnson concluded that situational couple violence was more difficult to understand, as the variables associated with situational violence have been inconsistent in previous research. In contrasting the two typologies, he found that interpersonal dynamics of conflict were more often present in instances of situational couple violence. If bidirectional violence is represented by situational couple violence, this may explain why the factors of hostility and alcohol problems predicted more bidirectional violence in the present

study, compared to unidirectional violence. The current study examined the respondent's own reported alcohol problems, but partner alcohol problems should also be examined. Based on Johnson's (2008) findings, future research that examines the typologies of partner violence perpetrated by women should investigate factors such as coercive control and partner characteristics, such as their alcohol problems.

Limitations

Several limitations were present in the study that may have impacted the findings. Although the prevalence rates of violence in the dyadic pairs were similar to previous research (Cercone, Beach, & Arias, 2005; Coker, Follingstad, Bush, & Fisher, 2016), only $n = 87$ were classified as unidirectionally violent. This small sample size may have affected the power to detect significance with the number of variables being tested in the regression models. Future research should gather a larger sample to test a more complex model examining mediating and moderating effects of the variables of interest.

A second limitation of the study was the study methodology. IPV perpetration and victimization were measured using self-reports from only one partner, which presents the potential for biased reporting of IPV, due to social desirability (i.e., downplaying one's own perpetration of violence). Research shows that the typical pattern when self-reporting is to under-report one's own use of undesirable behavior, but not their partner's undesirable behavior (Woodin et al., 2013). Although the survey method is advantageous given the anonymity it ensures, which is critical for the sensitive nature of the violence questions, participants had to report on the amount of violence perpetrated and victimized by their partner. Retrospective reporting of violence may not be the most valid measure of obtaining prevalence rates of dating violence; however, the Conflict Tactics Scale-Revised is one of the most common measures of

assessing self-reported violence, as a recent literature search found it has been cited in 3387 studies. The data method was also cross-sectional and retrospective in nature, which provides a challenge in the reported accuracy of violence in the childhood home. A longitudinal analysis model would be ideal in establishing the long-term and developmental effects of violence across the lifespan.

Another potential limitation of the study is the data analysis method used. Using a stepwise method of entry, the model selects the variables that explain the most variance first, and so on, until there are no more variables that significantly predict the dependent variable. Criticisms of this method are that it allows the model to be specified by the data and not by theory, and it is also exacerbated by collinearity problems. However, stepwise methods can be advantageous when you have a large number of variables and hypotheses are more exploratory in nature. For these reasons, stepwise procedures were utilized after the full model was run, but this method of entry could be a limitation to the interpretation of results.

Finally, it is important to note that this study focused on violence in heterosexual relationships and does not capture the pathways of violence in same-sex relationships. Future research should seek to examine different relationship types to better understand female-perpetrated dating violence.

Practical Implications

This research has several public policy implications regarding the need to educate service providers regarding bidirectionally violent couples and to design prevention and awareness programs. Previous studies found that women who engage in IPV feel less entitled to seek formal or informal help than do those in male-only violent couples (Kaufman Kantor & Straus, 1990; Swan & Sullivan, 2009). Furthermore, this study outlined a family history of violence,

establishing a need to educate and help families at all timepoints in the lifespan. These findings can also be used to design intervention models and programs focused on college-aged women in violent dating relationships to focus on tackling the comorbidity of alcohol problems and dating violence.

CHAPTER V

CONCLUSION

IPV is a multifaceted construct. Further, among partners who engage in IPV, the nature of IPV varies regarding the context, severity, and type of violence. In addition, while the research on male perpetrators of IPV is abundant, less is known about the variables associated with female perpetration of IPV. This study examined differences between young women who report being in a bidirectionally violent, unidirectionally violent, or non-violent relationship. In support of social learning theory, as compared to women who did not perpetrate violence, those that perpetrated violence were more likely to report early exposure of violence; specifically higher levels of witnessing interparental violence perpetrated by their mother as well as experiencing more violence in their adolescent dating relationship. Other key variables that separated perpetrators from non-perpetrators were higher levels of emotion dysregulation and psychological aggression.

Further, differences were examined between women who reported bidirectional versus unidirectional violence. Specifically, participants who reported higher levels of hostility and alcohol problems had higher odds of reporting bidirectional violence compared to unidirectional violence. Although variables that might be identified as key as determined by the social learning theory significantly predicted the odds of perpetration (compared to no violence), they did not significantly differentiate participants who reported unidirectional from bidirectional violence. Rather, and in contrast to expectations, higher levels of hostility and alcohol problems, increased the odds of bidirectional violence. Findings from the current study add to our understanding of IPV as it relates to different forms of female perpetration of IPV.

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APPENDIX A

EXPOSURE TO ABUSIVE AND SUPPORTIVE ENVIRONMENTS PARENTING INVENTORY

Directions: This questionnaire covers experiences you may have had when you were a child. If you did not live with both biological parents, please answer these questions with a mother figure (e.g., stepmother, grandmother, adoptive mother) or father figure (e.g., stepfather, grandfather, adoptive father) in mind.

The maternal figure I am completing this scale about is my:

- 1) biological mother
- 2) step-mother
- 3) adoptive mother
- 4) other _____ (please write in who this person was-e.g., grandmother)
- 5) I did not have a mother figure while growing up.

The paternal figure I am completing this scale about is my:

- 1) biological father
- 2) step-father
- 3) adoptive father
- 4) other _____ (please write in who this person was-e.g., grandfather)
- 5) I did not have a father figure while growing up.

Please answer the questions using the following scale:

0 = Never, 1 = Rarely, 2 = Sometimes, 3 = Often, 4 = Very Often

	<u>Your Mother:</u>				<u>Your Father:</u>					
1. Broke or smashed objects near you when angry with you.	0	1	2	3	4	0	1	2	3	4
2. Threw things at you.	0	1	2	3	4	0	1	2	3	4
3. Pulled your hair.	0	1	2	3	4	0	1	2	3	4
4. Pushed, grabbed, or shoved you.	0	1	2	3	4	0	1	2	3	4
5. Deliberately scratched you.	0	1	2	3	4	0	1	2	3	4
6. Hit you.	0	1	2	3	4	0	1	2	3	4
7. Hit you with objects.	0	1	2	3	4	0	1	2	3	4
8. Beat you up.	0	1	2	3	4	0	1	2	3	4
9. Choked you.	0	1	2	3	4	0	1	2	3	4
10. Kicked you.	0	1	2	3	4	0	1	2	3	4
11. Threatened to kill you.	0	1	2	3	4	0	1	2	3	4
12. Threatened you with a weapon (such as a knife or gun).	0	1	2	3	4	0	1	2	3	4
13. Used a weapon (such as a knife or gun) on you.	0	1	2	3	4	0	1	2	3	4

APPENDIX B

REVISED CONFLICT TACTICS SCALE- INTERPARENTAL VERSION

Directions: No matter how well a couple gets along, there are times when they disagree, get annoyed with the other person, want different things from each other, or just have spats or fights because they are in a bad mood, are tired, or for some other reason. Couples also have many different ways of trying to settle their differences. This is a list of things that might have happened when your parents had differences. Please circle how many times you recall witnessing each of these things happening in your parents' relationship.

How often did this happen?

1 = Once, 2 = Twice, 3 = 3-5 times, 4 = 6-10 times, 5 = 11-20 times, 6 = More than 20 times

0 = This has never happened

1. My mother showed my father she cared even though they disagreed.
2. My father showed my mother he cared even though they disagreed.
3. My mother explained her side of a disagreement to my father.
4. My father explained his side of a disagreement to my mother.
5. My mother insulted or swore at my father.
6. My father insulted or swore at my mother.
7. My mother threw something at my father that could hurt.
8. My father threw something at my mother that could hurt.
9. My mother twisted my father's arm or hair.

10. My father twisted my mother's arm or hair.
11. My mother had a sprain, bruise, or small cut because of a fight with my father.
12. My father had a sprain, bruise, or small cut because of a fight with my mother.
13. My mother showed respect for my father's feelings about an issue.
14. My father showed respect for my mother's feelings about an issue.
15. My mother pushed or shoved my father.
16. My father pushed or shoved my mother.
17. My mother used a knife or gun on my father.
18. My father used a knife or gun on my mother.
19. My mother passed out from being hit on the head by my father in a fight.
20. My father passed out from being hit on the head by my mother in a fight.
21. My mother called my father fat or ugly.
22. My father called my mother fat or ugly.
23. My mother punched or hit my father with something that could hurt.
24. My father punched or hit my mother with something that could hurt.
25. My mother destroyed something belonging to my father.
26. My father destroyed something belonging to my mother.
27. My mother went to a doctor because of a fight with my father.
28. My father went to a doctor because of a fight with my mother.
29. My mother choked my father.
30. My father choked my mother.
31. My mother shouted or yelled at my father.
32. My father shouted or yelled at my mother.

33. My mother slammed my father against a wall.
34. My father slammed my mother against a wall.
35. My mother said she was sure they could work out a problem.
36. My father said he was sure they could work out a problem.
37. My mother needed to see a doctor because of a fight with my father, but didn't.
38. My father needed to see a doctor because of a fight with my mother, but didn't.
39. My mother beat up my father.
40. My father beat up my mother.
41. My mother grabbed my father.
42. My father grabbed my mother.
43. My mother stomped out of the room or house or yard during a disagreement.
44. My father stomped out of the room or house or yard during a disagreement.
45. My mother slapped my father.
46. My father slapped my mother.
47. My mother had a broken bone from a fight with my father.
48. My father had a broken bone from a fight with my mother.
49. My mother suggested a compromise to a disagreement.
50. My father suggested a compromise to a disagreement.
51. My mother burned or scalded my father on purpose.
52. My father burned or scalded my mother on purpose.
53. My mother accused my father of being a lousy lover.
54. My father accused my mother of being a lousy lover.
55. My mother did something to spite my father.

56. My father did something to spite my mother.
57. My mother threatened to hit or throw something at my father.
58. My father threatened to hit or throw something at my mother.
59. My mother felt physical pain that still hurt the next day because of a fight with my father.
60. My father felt physical pain that still hurt the next day because of a fight with my mother.
61. My mother kicked my father.
62. My father kicked my mother.
63. My mother agreed to try a solution to a disagreement my father suggested.
64. My father agreed to try a solution to a disagreement my mother suggested.

APPENDIX C

THE AGGRESSION SCALE

Directions: Think back to your early adolescence years (between the ages of 12 and 15). The following questions gauge how you may have handled anger and aggression toward your peers and students your age. How often did each behavior occur?

1 = Once, 2 = Twice, 3 = 3-5 times, 4 = 6-10 times, 5 = 11-20 times, 6 = More than 20 times

0 = This has never happened

1. I teased students to make them angry.
2. I got angry very easily with someone.
3. I fought back when someone hit me first.
4. I said things about other kids to make other students laugh.
5. I encouraged other students to fight.
6. I pushed or shoved other students.
7. I was angry most of the day.
8. I got into a physical fight because I was angry.
9. I slapped or kicked someone.
10. I called other students bad names.
11. I threatened to hurt or to hit someone.

APPENDIX D

THE CONFLICT IN ADOLESCENT RELATIONSHIPS INVENTORY

Directions: The following questions pertain to your first serious, romantic relationship during adolescence (**ask questions about this relationship**). Think back to your most serious relationship in adolescence (before you were 18 years old). The following questions ask you about things that may have happened to you with your boyfriend while you were having an argument. Check the box that is your best estimate of how often these things happened with your first serious boyfriend.

As a guide use the following scale:

Never: this has never happened in your relationship

Seldom: this has happened only 1-2 times in your relationship

Sometimes: this has happened about 3-5 times in your relationship

Often: this has happened 6 times or more in your relationship

Never

During a conflict or argument with my first serious boyfriend:

1. I gave reasons for my side of the argument.

He gave reasons for his side of the argument.

2. I touched him sexually when he didn't want me to.

He touched me sexually when I didn't want him to.

3. I tried to turn his friends against him.

He tried to turn my friends against me.

4. I did something to make him feel jealous.

He did something to make me feel jealous.

5. I destroyed or threatened to destroy something he valued.

He destroyed or threatened to destroy something I valued.

6. I told him that I was partly to blame.

He told me that he was partly to blame.

7. I brought up something bad that he had done in the past

He brought up something bad that I had done in the past.

8. I threw something at him.

He threw something at me.

9. I said things just to make him angry.

He said things just to make me angry.

10. I gave reasons why I thought he was wrong.

He gave reasons why he thought I was wrong.

11. I agreed that he was partly right.

He agreed that I was partly right.

12. I spoke to him in a hostile or mean tone of voice.

He spoke to me in a hostile or mean tone of voice.

13. I forced him to have sex when he didn't want to.

He forced me to have sex when I didn't want to.

14. I offered a solution that I thought would make us both happy.

He offered a solution that he thought would make us both happy.

15. I threatened him in an attempt to have sex with him.

He threatened me in an attempt to have sex with me.

16. I put off talking until we calmed down.

He put off talking until we calmed down.

17. I insulted him with put-downs.

He insulted me with put-downs.

18. I discussed the issue calmly.

He discussed the issue calmly.

19. I kissed him when he didn't want me to.

He kissed me when I didn't want him to.

20. I said things to his friends about him to turn them against him.

He said things to my friends about me to turn them against me.

21. I ridiculed or made fun of him in front of others.

He ridiculed or made fun of me in front of others.

22. I told him how upset I was.

He told me how upset he was.

23. I kept track of who he was with and where he was.

He kept track of who I was with and where I was.

24. I blamed him for the problem.

He blamed me for the problem.

25. I kicked, hit or punched him.

He kicked, hit or punched me.

26. I left the room to cool down.

He left the room to cool down.

27. I gave in, just to avoid conflict.

He gave in, just to avoid conflict.

28. I accused him of flirting with another girl.

He accused me of flirting with another guy.

29. I deliberately tried to frighten him.

He deliberately tried to frighten me.

30. I slapped him or pulled his hair.

He slapped me or pulled my hair.

31. I threatened to hurt him

He threatened to hurt me.

32. I threatened to end the relationship.

He threatened to end the relationship.

33. I threatened to hit him or throw something at him.

He threatened to hit me or throw something at me.

34. I pushed, shoved, or shook him.

He pushed, shoved, or shook me.

35. I spread rumors about him.

He spread rumors about me.

APPENDIX E

BUSS PERRY AGGRESSION QUESTIONNAIRE

Directions

Physical Aggression

1. Once in a while I can't control the urge to strike another person.
2. Given enough provocation, I may hit another person.
3. If somebody hits me, I hit back.
4. I get into fights a little more than the average person.
5. If I have to resort to violence to protect my rights, I will.
6. There are people who pushed me so far that we came to blows.
7. I can think of no good reason for ever hitting a person.
8. I have threatened people I know.
9. I have become so mad that I have broken things.

Verbal Aggression

10. I tell my friends openly when I disagree with them.
11. I often find myself disagreeing with people.
12. When people annoy me, I may tell them what I think of them.
13. I can't help getting into arguments when people disagree with me.
14. My friends say that I'm somewhat argumentative.

Anger

15. I flare up quickly but get over it quickly.
16. When frustrated, I let my irritation show.

17. I sometimes feel like a powder keg ready to explode.

18. I am an even-tempered person.

19. Some of my friends think I'm a hothead.

20. Sometimes I fly off the handle for no good reason.

21. I have trouble controlling my temper.

Hostility

22. I am sometimes eaten up with jealousy.

23. At times I feel I have gotten a raw deal out of life.

24. Other people always seem to get the breaks.

25. I wonder why sometimes I feel so bitter about things.

26. I know that "friends" talk about me behind my back.

27. I am suspicious of overly friendly strangers.

28. I sometimes feel that people are laughing at me behind me back.

29. When people are especially nice, I wonder what they want.

APPENDIX F

DIFFICULTIES IN EMOTION REGULATION SCALE

Directions:

Non-acceptance of Emotional Responses

- 29) When I'm upset, I feel guilty for feeling that way.
- 25) When I'm upset, I feel ashamed with myself for feeling that way.
- 15) When I'm upset, I become embarrassed for feeling that way.
- 14) When I'm upset, I become angry with myself for feeling that way.
- 33) When I'm upset, I become irritated with myself for feeling that way.
- 27) When I'm upset, I feel like I am weak.

Difficulties Engaging in Goal-Directed Behavior

- 30) When I'm upset, I have difficulty concentrating.
- 22) When I'm upset, I have difficulty focusing on other things.
- 16) When I'm upset, I have difficulty getting work done.
- 38) When I'm upset, I have difficulty thinking about anything else.
- 24) When I'm upset, I can still get things done. (r)

Impulse Control Difficulties

- 37) When I'm upset, I lose control over my behaviors.
- 31) When I'm upset, I have difficulty controlling my behaviors.
- 17) When I'm upset, I become out of control.
- 23) When I'm upset, I feel out of control.
- 4) I experience my emotions as overwhelming and out of control.
- 28) When I'm upset, I feel like I can remain in control of my behaviors. (r)

Lack of Emotional Awareness

- 7) I am attentive to my feelings. (r)
- 3) I pay attention to how I feel. (r)
- 12) When I'm upset, I acknowledge my emotions. (r)
- 21) When I'm upset, I believe that my feelings are valid and important. (r)
- 9) I care about what I am feeling. (r)
- 39) When I'm upset, I take time to figure out what I'm really feeling. (r)

Limited Access to Emotion Regulation

- 20) When I'm upset, I believe that I'll end up feeling very depressed.
- 19) When I'm upset, I believe that I will remain that way for a long time.
- 35) When I'm upset, I believe that wallowing in it is all I can do.
- 40) When I'm upset, it takes me a long time to feel better.
- 32) When I'm upset, I believe that there is nothing I can do to make myself feel better.
- 26) When I'm upset, I know that I can find a way to eventually feel better. (r)
- 41) When I'm upset, my emotions feel overwhelming.
- 34) When I'm upset, I start to feel very bad about myself.

Lack of Emotional Clarity

- 6) I have difficulty making sense out of my feelings.
- 5) I have no idea how I am feeling.
- 10) I am confused about how I feel.
- 8) I know exactly how I am feeling. (r)
- 1) I am clear about my feelings. (r)

APPENDIX G

BRIEF YOUNG ADULT ALCOHOL CONSEQUENCES QUESTIONNAIRE

Directions: Below is a list of things that sometimes happen to people either during or after they have been drinking alcohol. Next to each item below, please mark an “X” in either the NO or the YES column to indicate whether that item describes something that has happened to **YOU/YOUR PARTNER IN THE PAST 30 DAYS.**

1. I have had a hangover (headache, sick stomach) the morning after I had been drinking.
2. I have taken foolish risks when I have been drinking.
3. I've not been able to remember large stretches of time while drinking heavily.
4. The quality of my work or school work has suffered because of my drinking.
5. I have had less energy or felt tired because of my drinking.
6. My drinking has gotten me into sexual situations I later regretted.
7. I often have ended up drinking on nights when I had planned not to drink.
8. My physical appearance has been harmed by my drinking.
9. While drinking, I have said or done embarrassing things.
10. I have felt very sick to my stomach or thrown up after drinking.
11. I have not gone to work or missed classes at school because of drinking, a hangover, or illness caused by drinking.
12. When drinking, I have done impulsive things I regretted later.
13. I have been overweight because of drinking.
14. I have woken up in an unexpected place after heavy drinking.

15. I have spent too much time drinking.
16. I have felt badly about myself because of my drinking.
17. My drinking has created problems between myself and my boyfriend/girlfriend/spouse, parents, or other near relatives.
18. I have felt like I needed a drink after I'd gotten up (that is, before breakfast).
19. I have driven a car when I knew I had too much to drink to drive safely.
20. I have neglected my obligations to family, work, or school because of drinking.
21. I have often found it difficult to limit how much I drink.
22. I have passed out from drinking.
23. I have become very rude, obnoxious, or insulting after drinking.
24. I have found that I needed larger amounts of alcohol to feel any effect, or that I could no longer get high or drunk on the amount that used to get me high or drunk.

APPENDIX H

MULTIDIMENSIONAL MEASURE OF EMOTIONAL ABUSE

Directions: **The following questions ask about the relationship with you partner or ex-partner. Please report how often each of these things has happened in the last six months.**

Please circle a number using the scale below to indicate how often you have done each of the following things, and a number to indicate how often your partner has done each of the following things. Indicate how many times you have done this where it says “you”, and how many times your partner has done this where it says “your partner”. If you or your partner did not do one of these things in the past 6 months, but it has happened before that, circle “7”.

- (1) *Once* (4) *6-10 times* (7) *Never in the past six months, but it has happened before.*
 (2) *Twice* (5) *11-20 times* (0) *This has never happened*
 (3) *3-5 times* (6) *More than 20 times*

1. Asked the other person where they had been or who they were within a suspicious manner.
2. Secretly searched through the other person’s belongings.
3. Tried to stop the other person from seeing certain friends or family members.
4. Complained that the other person spends too much time with friends.
5. Got angry because the other person went somewhere without telling him/her.
6. Tried to make the other person feel guilty for not spending enough time together.
7. Checked up on the other person by asking friends or relatives where they were or who they were with.

8. Said or implied that the other person was stupid.
9. Called the other person worthless.
10. Called the other person ugly.
11. Criticized the other person's appearance.
12. Called the other person a loser, failure, or similar term.
13. Belittled the other person in front of other people.
14. Said that someone else would be a better partner (better spouse, better girlfriend or boyfriend).
15. Became so angry that they were unable or unwilling to talk.
16. Acted cold or distant when angry.
17. Refused to have any discussion of a problem.
18. Changed the subject on purpose when the other person was trying to discuss a problem.
19. Refused to acknowledge a problem that the other person felt was important.
20. Sulked or refused to talk about an issue.
21. Intentionally avoided the other person during a conflict or disagreement.
22. Became angry enough to frighten the other person.
23. Put his/her face right in front of the other person's face to make a point more forcefully.
24. Threatened to hit the other person.
25. Threatened to throw something at the other person.
26. Threw, smashed, hit, or kicked something in front of the other person.
27. Drove recklessly to frighten the other person.
28. Stood or hovered over the other person during a conflict or disagreement.

APPENDIX I

REVISED CONFLICT TACTICS SCALE- CURRENT/RECENT RELATIONSHIP

Directions: No matter how well a couple gets along, there are times when they disagree, get annoyed with the other person, want different things from each other, or just have spats or fights because they are in a bad mood, are tired, or for some other reason. Couples also have many different ways of trying to settle their differences. This is a list of things that might have happened in your CURRENT or RECENT relationship when you and your partner had differences. Please circle how many times you recall each of these things happening in your relationship. Items in bold represent the Physical Assault and Injury subscales and will be used in the current study.

(1) *Once* (4) *6-10 times* (7) *Never in the past six months, but it has happened before.*

(2) *Twice* (5) *11-20 times* (0) *This has never happened*

(3) *3-5 times* (6) *More than 20 times*

1. I showed my partner I cared even though we disagreed.
2. My partner showed care for me even though we disagreed.
3. I explained my side of a disagreement to my partner.
4. My partner explained his or her side of a disagreement to me.
5. I insulted or swore at my partner.
6. My partner did this to me.
- 7. I threw something at my partner that could hurt.**

- 8. My partner did this to me.**
- 9. I twisted my partner's arm or hair.**
- 10. My partner did this to me.**
- 11. I had a sprain, bruise, or small cut because of a fight with my partner.**
- 12. My partner had a sprain, bruise, or small cut because of a fight with me.**
13. I showed respect for my partner's feelings about an issue.
14. My partner showed respect for my feelings about an issue.
15. I made my partner have sex without a condom.
16. My partner did this to me.
- 17. I pushed or shoved my partner.**
- 18. My partner did this to me.**
19. I used force (like hitting, holding down, or using a weapon) to make my partner have oral or anal sex.
20. My partner did this to me.
- 21. I used a knife or gun on my partner.**
- 22. My partner did this to me.**
- 23. I passed out from being hit on the head by my partner in a fight.**
- 24. My partner passed out from being hit on the head in a fight with me.**
25. I called my partner fat or ugly.
26. My partner called me fat or ugly.
- 27. I punched or hit my partner with something that could hurt.**
- 28. My partner did this to me.**
29. I destroyed something belonging to my partner.

30. My partner did this to me.
- 31. I went to a doctor because of a fight with my partner.**
- 32. My partner went to a doctor because of a fight with me.**
- 33. I choked my partner.**
- 34. My partner did this to me.**
35. I shouted or yelled at my partner.
36. My partner did this to me.
- 37. I slammed my partner against a wall.**
- 38. My partner did this to me.**
39. I said I was sure we could work out a problem.
40. My partner was sure we could work it out.
- 41. I needed to see a doctor because of a fight with my partner, but I didn't.**
- 42. My partner needed to see a doctor because of a fight with me, but didn't.**
- 43. I beat up my partner.**
- 44. My partner did this to me.**
- 45. I grabbed my partner.**
- 46. My partner did this to me.**
47. I used force (like hitting, holding down, or using a weapon) to make my partner have sex.
48. My partner did this to me.
49. I stomped out of the room or house or yard during a disagreement.
50. My partner did this to me.
51. I insisted on sex when my partner did not want to (but did not use physical force).
52. My partner did this to me.

53. I slapped my partner.

54. My partner did this to me.

55.1 had a broken bone from a fight with my partner.

56. My partner had a broken bone from a fight with me.

57. I used threats to make my partner have oral or anal sex.

58. My partner did this to me.

59. I suggested a compromise to a disagreement.

60. My partner did this to me.

61. I burned or scalded my partner on purpose.

62. My partner did this to me.

63.1 insisted my partner have oral or anal sex (but did not use physical force).

64. My partner did this to me.

65. I accused my partner of being a lousy lover.

66. My partner accused me of this.

67. I did something to spite my partner.

68. My partner did this to me.

69. I threatened to hit or throw something at my partner.

70. My partner did this to me.

71. I felt physical pain that still hurt the next day because of a fight with my partner.

72. My partner still felt physical pain the next day because of a fight we had.

73. I kicked my partner.

74. My partner did this to me.

75. I used threats to make my partner have sex.

76. My partner did this to me.

77. I agreed to try a solution to a disagreement my partner suggested.

78. My partner agreed to try a solution I suggested.

APPENDIX J

DEMOGRAPHIC QUESTIONNAIRE

Directions: The following questions pertain to your own, or your partner's, personal characteristics and family upbringing. Please answer them to the best of your ability.

1. Your Age: _____ (years)
2. Gender: Male Female
3. Your Education: Freshman Sophomore Junior Senior Graduate Student
3. Your Race/Ethnicity:
 - ___ American Indian or Alaska
 - ___ Asian
 - ___ Black or African American
 - ___ Hispanic or Latino
 - ___ Native Hawaiian or Other Pacific Islander
 - ___ White, non-Hispanic
 - ___ Other: _____

RELATIONSHIP HISTORY

5. Your Marital Status:
 - Never Married Married Separated Divorced Widowed
6. Please check one statement below that best describes your current "relationship status":
 - ___ Not dating anyone

- Dating, but not any one person in particular
- Dating one person exclusively
- Cohabiting
- Engaged
- Married

7. If you are in an “involved” relationship, what is the length of your relationship with your partner?

_____ years _____ months _____ weeks

8. If you are in an “involved” relationship, how satisfied are you with your relationship with your partner?

Very	Mostly	Neither Satisfied	Mostly	Very
Satisfied	Satisfied	Nor Dissatisfied	Dissatisfied	Dissatisfied

9. Your sexual orientation (please choose one):

- Exclusively heterosexual
- Mostly heterosexual
- Equally heterosexual and homosexual
- Mostly homosexual
- Exclusively homosexual

FAMILY HISTORY

10. Think about your living arrangements while you were growing up. *Most of the time* while you were growing up, what adults did you live with? Please check the most accurate description:

- ___ mother only
- ___ father only
- ___ mother and father
- ___ mother and stepfather
- ___ father and stepmother
- ___ other _____(please specify)

11.a. Did you ever suspect that your mother had a drinking problem? YES NO

b. Does your mother still have a drinking problem? YES NO

c. If your mother had a drinking problem but no longer has a drinking problem, how old were you when she stopped drinking? _____

12.a. Did you ever suspect that your father had a drinking problem? YES NO

b. Does your father still have a drinking problem? YES NO

c. If your father had a drinking problem but no longer has a drinking problem, how old were you when he stopped drinking? _____

13. a. Did you ever suspect that another person in your immediate family has/had a drinking problem?

YES NO

b. If yes, please describe your relationship with this person? _____

14. Did you ever suspect that your mother had a substance abuse problem OTHER than alcohol?

YES NO

15. Did you ever suspect that your father had a substance abuse problem OTHER than alcohol?

YES NO

16. Did you ever suspect that another person in your immediate family had a substance abuse problem OTHER than alcohol? YES NO

17. What is the highest level of education your mother completed?

some high school

high school

some college

completed college (e.g., B.S., B.A.)

some courses toward a masters degree

completed masters degree (e.g., M.S., M.A., M.S.W.)

completed doctorate (Ph.D., M.D., J.D.,etc.)

18. What does your mother do for a living? _____(please be specific)

19. What is the highest level of education your father completed?

some high school

high school

some college

completed college (e.g., B.S., B.A.)

some courses toward a masters degree

completed masters degree (e.g., M.S., M.A., M.S.W.)

completed Ph.D., M.D., etc.

20. What does your father do for a living? _____ (please be specific)

21. Have you ever experienced neglect by a family member?

Yes No Maybe Unknown

22. Have you ever experienced physical abuse by a family member?

Yes No Maybe Unknown

23. Have you ever experienced physical abuse by someone outside your family?

Yes No Maybe Unknown

24. Have you ever experienced sexual abuse by a family member?

Yes No Maybe Unknown

25. Have you ever experienced sexual abuse by someone outside your family?

Yes No Maybe Unknown

26. Have you ever experienced psychological abuse by a family member?

Yes No Maybe Unknown

27. Have you ever experienced psychological abuse by someone outside your family?

Yes No Maybe Unknown

VITA

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Education and Training

- Ph.D.** **Old Dominion University, Norfolk, VA**
Health Psychology, 2020
Advisor: Michelle L. Kelley, Ph.D.
- M.S.** **Old Dominion University, Norfolk, VA**
Experimental Psychology, 2011
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Psychology (Honors), 2009

Background

Elaine M. Murphy is a doctoral candidate in the Health Psychology doctoral program at Old Dominion University. Her dissertation research investigates key predictors of intimate partner violence. Elaine's research interests include examining developmental predictors of relationship violence and identifying different types of violence. Elaine has a strong teaching background in quantitative and research methods and has additional teaching interests in developmental psychology.

Selected Teaching Experience

- Spring 2019, Summer 2019, Psychology 317 – Quantitative Methods (Course
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Old Dominion University
- Summer 2019 Psychology 318 – Experimental Psychology (Course
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- Fall 2018, Spring 2019, Psychology 203S – Lifespan Development (Course Fall
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