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WOMEN WHO PERPETRATE PARTNER VIOLENCE: THE ROLE OF ATTACHMENT INSECURITY AND EMOTION REGULATION

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WOMEN WHO PERPETRATE PARTNER VIOLENCE: THE ROLE OF
ATTACHMENT INSECURITY AND EMOTION REGULATION

A Thesis
Presented to the
Faculty of
California State University,
San Bernardino

In Partial Fulfillment
of the Requirements for the Degree
Master of Arts
in
General Experimental Psychology

by
Diana Adèle Robinson
September 2017

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ABSTRACT

Intimate partner violence (IPV) is a prevalent and destructive social problem affecting millions of people around the world. Although partner violence has been widely examined among women, few studies have focused on women in the role of perpetrator. The purpose of this investigation was to identify the underlying mechanisms of IPV perpetration among college women. Specifically, we investigated the relationship among attachment insecurity (i.e., anxious and avoidant), emotion regulation (ER) strategies (i.e., expressive suppression and cognitive reappraisal), and IPV among a sample of college women. Participants ($N = 177$) were recruited from a Southern California university and completed measures of adult attachment, ER strategies, and incidences of IPV. Results revealed significant positive associations among attachment insecurity, the ER strategy expressive suppression, and IPV perpetration. Furthermore, results of a mediation analysis demonstrated the relationship between insecure attachment and IPV perpetration was mediated by expressive suppression. Results from this investigation further our understanding of the underlying mechanisms of female-perpetrated IPV and have significant implications for therapeutic and intervention efforts for women who perpetrate partner violence.

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CHAPTER ONE

LITERATURE REVIEW

Prevalence and Impact of Intimate Partner Violence

The extensive impact of intimate partner violence (IPV) on the physical and mental health of survivors has been explored in numerous research studies over the last several decades. IPV includes physical violence, sexual violence, threats of physical or sexual violence, stalking, and psychological aggression (Black et al., 2010). Some of the physical consequences of IPV include physical injury, sexual and reproductive deficits, and a reduction of physical functioning (Black et al., 2010; World Health Organization [WHO], 2013). Depression, anxiety, PTSD, and suicidal behavior are only a few of the potential psychological consequences of IPV (Black et al., 2010; WHO, 2013). One in three women and one in seven men throughout the world will experience some form of IPV in their lifetime (Black et al., 2010; WHO, 2013). Additionally, the WHO (2013) estimates that IPV costs approximately 12.6 billion dollars annually due to medical costs and prevention efforts. Further research to explore the psychological, social, and economic impacts of IPV is warranted to develop a better understanding of the underlying mechanisms that contribute to this widespread social problem.

Attachment insecurity (i.e., anxious and avoidant) has been linked to IPV perpetration (e.g., Buck, Leenaars, Emmelkamp, & van Marle, 2012; Dumas, Pearson, Elgin, & McKinkley 2008; Dutton & White, 2012). The link demonstrated in these studies provides evidence of the increased tendency of insecurely

attached individuals to engage in IPV perpetration compared to individuals with a secure attachment style. Similarly, emotion regulation (ER) strategies have been linked to IPV perpetration (e.g., Davey, Day, & Howells, 2005; Donahue, Goranson, McClure, & van Male, 2014; McNulty & Hellmuth, 2008). Difficulty regulating one's emotions has been shown to lead to an increase in aggressive behavior toward an intimate partner. Because attachment styles and ER strategies are developed very early in life, and empirical evidence links these characteristics to IPV, it is important to explore how they may work together to influence IPV perpetration. Historically, IPV research has focused on the victimization of women; however, more recently researchers have examined women in the role of perpetrator (e.g., Archer, 2000; McKeown, 2014; Whitaker, 2014). The goal of the present investigation was to understand how attachment insecurity and difficulties regulating one's emotions may influence the perpetration of IPV among college women.

An etiological model of IPV, I³ (I-cubed) theory, proposes an organizational structure for understanding the processes of IPV as opposed to identifying one of the many key variables as the primary cause of IPV (Slotter & Finkel, 2011). Specifically, I³ is a process-oriented theory aimed at identifying the circumstances under which a nonaggressive interaction can become aggressive by examining three stages of an aggressive event: instigating triggers, impelling forces, and inhibiting forces (Slotter & Finkel, 2011). Instigating triggers are situational events that prompt behavioral tendencies toward physical aggression,

such as social rejection and insult from a partner (DeWall, Baumeister, Stillman, & Gailliot, 2007; Finkel, DeWall, Slotter, Oaten, & Foshee, 2009). The instigating triggers include situational events such as direct provocation, goal obstruction, and social rejection. These instigating triggers are placed into two categories: dyadic triggers and third-party triggers. Dyadic triggers are those in which the aggressor believes originated in the target, whereas third-party triggers are those in which the aggressor believes originated in someone other than the target. The impelling forces are risk factors that influence the strength of the aggressive urge experienced by the individual and can have an individual effect or an interactive effect with instigating triggers (Slotter & Finkel, 2011). The impelling forces are placed into one of four categories: evolutionary and cultural factors (e.g., survival advantages for expressing violent impulses in certain situations), personal factors (e.g., personality characteristics, interpersonal interaction styles), dyadic factors (e.g., power dissatisfaction, insecurity in the relationship), and situational risk factors (e.g., environmental irritants, pain, and aggression cues). Strong impulses toward aggression are more likely when impelling forces are strong and salient (Slotter & Finkel, 2011).

Inhibiting forces are factors that determine if an individual will be able to override the aggressive urges produced by instigating triggers and impelling forces or give in to these urges and react with physical aggression (Slotter & Finkel, 2011). Inhibiting forces are also placed into one of four categories: evolutionary and cultural inhibitors (e.g., survival advantage for overriding

aggressive impulses in certain situations), personal inhibitors (e.g., dispositional self-control and executive functioning), dyadic inhibitors (e.g., relationship commitment, and partner empathy or perspective taking), and situational inhibitors (e.g., sobriety vs. alcohol intoxication and ego depletion). The emphasis on inhibiting forces, especially self-regulation, is what differentiates I³ theory from other models of aggression that also focus on a broad range of risk factors and processes of aggression, such as the General Aggression Model (GAM; Anderson & Bushman, 2002; Slotter & Finkel, 2011). These inhibiting forces collectively determine the threshold above which aggressive urges will be expressed in aggressive behavior (Slotter & Finkel, 2011). One way in which an individual may exercise self-regulation is utilizing emotion regulation strategies to hinder expression of negative emotions (i.e., expressive suppression) or to alter the effect of negative events or emotions (i.e., cognitive reappraisal). Emotion regulation has been regarded as a unique type of self-regulation because it has the potential to subvert other attempts at self-control (Tice & Bratslavsky, 2000).

I³ theory proposes a moderated relationship among various instigating, impelling, and inhibiting forces. However, we seek to extend this theory to incorporate mediation as a potential mechanism for explaining how multiple risk factors interrelate to increase or decrease risk for the expression of aggression in the form of IPV. We suggest there is potential for a mediated relationship among these factors depending on the level at which the factors operate. In other words, an impelling force may lead to the development of an inhibiting force. For the

purposes of this investigation, we will be exploring impelling forces and inhibiting forces at the dispositional level. Specifically, we are interested in the impelling factor of personality characteristics via attachment insecurity (i.e., anxious and avoidant) and the inhibiting factor of self-control via emotion regulation (i.e., expressive suppression and cognitive reappraisal). The use of cognitive reappraisal would be considered a strong inhibiting force and the use of expressive suppression would be considered a weak inhibiting force (i.e., disinhibiting force). We are suggesting at the dispositional level, possessing an insecure attachment style may lead to the use of maladaptive emotion regulation strategies, which may increase the risk of perpetrating partner violence.

Perpetrators of Intimate Partner Violence

Although the literature overwhelmingly cites men as the perpetrators of IPV and provides evidence to support this notion (e.g., Barnett, Fagan, & Booker, 1991; Dutton, 1995; Pico-Alfonso, 2005), more recently, women have been studied in the role of IPV perpetrator (e.g., Archer 2000; McKeown, 2014; Whitaker, 2014). Taken together, many of these studies reveal gender differences, and more importantly, gender similarities in IPV perpetration. When Felson and Cares (2005) analyzed the National Violence Against Women and Men survey, which had over 6000 respondents, they found that although men assault their intimate partner more frequently than do women, men were more likely to suffer serious

injury. Equally important, men were less likely to use violence in intimate relationships in comparison to women (Felson & Cares, 2005).

Utilizing data from the National Comorbidity Survey, Williams and Frieze (2005) found that more women than men reported perpetrating violence against their partner. Similar to Felson and Cares (2005), men self-reported severe violence victimization slightly more frequently than women (Williams & Frieze, 2005). Busch and Rosenberg (2004) used archival criminal justice data to explore gender differences among men and women arrested for domestic violence. Their analysis revealed interesting similarities among male and female perpetrators of IPV. Female perpetrators were just as likely to use severe violence and inflict serious injuries on their victims in addition to having previous accounts of violence perpetration against non-intimate partners (Busch & Rosenberg, 2004). Although these studies have conflicting results, they establish the rate of IPV perpetration by women is at least equal to IPV perpetration by men and causes serious injury.

Archer (2000) conducted a meta-analysis to determine the gender differences in aggression among heterosexual intimate partners. This meta-analytic review revealed that women were slightly more likely to use one or more acts of physical aggression against their intimate partners (Archer, 2000). Houry et al. (2008) examined the responses of men and women on the Women's Experience with Battering Scale (WEB) that utilizes gender-neutral questions to assess the abuse of power and control in addition to fear in an intimate

relationship. Their examination of the responses revealed that women admitted to higher levels of battering than did men, a result that may have occurred on the basis that it is more socially unacceptable for men to admit to violence against women (Houry et al., 2008).

In one-sided assaults, it has been found that women are usually the perpetrators (Archer, 2000; Gray & Foshee, 1997). Gray and Foshee (1997) suggest three profiles of IPV: victim only (sustains but does not initiate violence), perpetrator only (initiates but does not sustain violence), and mutually violent (sustains and initiates violence) and attempted to identify differences in these profiles. The authors examined an adolescent sample of men and women ($N = 77$) and determined that 66% of the sample were characterized as mutually violent as opposed to one-sided assaults. However, more men in the study reported being victims only and more women reported being perpetrators only, leading the authors to conclude that the women in the study were more likely to be perpetrators in one-sided assaults (Gray & Foshee, 1997). It is possible that men's fear of being blamed for the assault may have contributed to their lack of retaliation in these one-sided assaults.

Whitaker (2014) examined gender differences in motivational attributions in IPV perpetration and found that men and women differ on nine of the eleven attributions measured. Men attributed their IPV perpetration to retaliation for physical or verbal abuse, escaping their partner, showing who is boss, and self-defense. Whereas, women were more likely to attribute their IPV perpetration to

a lost temper, making their partner listen, making their partner do as they wished, and to punish their partner. Overall, men were more likely to attribute their IPV perpetration to retaliation (Whitaker, 2014), whereas women were more likely to attribute their IPV perpetration to a desire for control and loss of temper, characteristics that are found among individuals with attachment insecurity (Follingstad, Bradley, Helff, & Laughlin, 2002).

McKeown (2014) conducted a study to examine the associations among attachment insecurity, personality factors, and IPV perpetration among women in heterosexual and same-sex relationships. There were no significant differences between the heterosexual couples and same-sex couples concerning perpetration so data from all participants was analyzed together. Like the current study, McKeown (2014) utilized the Experiences in Close Relationships (ECR-R; Fraley, Waller, & Brennan, 2000) to measure attachment styles and the Revised Conflict Tactics Scale (CTS-2; Straus, Hamby, McCoy, & Sugarman, 1996) to measure incidences of IPV perpetration and victimization. Although attachment anxiety and avoidance were not significantly predictive of IPV perpetration, McKeown found female perpetrators to have higher levels of attachment anxiety than avoidance (2014). Also worth noting, in a multiple regression analysis attachment avoidance was a significant predictor of IPV victimization, but not perpetration (McKeown, 2014).

Taken together these studies provide empirical evidence that women perpetrate IPV, if not as much as men, more (e.g., Archer, 2000; Williams &

Frieze, 2005) and they inflict serious injury (e.g., Busch & Rosenberg, 2004; Felson & Cares, 2005). Additionally, in adolescence, women were shown to be the more likely perpetrators of one-sided assaults (e.g., Gray & Foshee, 1997). This leads us to question what may influence women to perpetrate IPV. Whitaker (2014) demonstrated among a sample of college students that women's motivational attributions for IPV perpetration consist of characteristics found in individuals with insecure attachment, and Doumas et al. (2008) confirmed among a sample of couples that attachment anxiety plays a role in women's perpetration of IPV. However, McKeown (2014) established, in a sample of incarcerated women, that attachment insecurity was not predictive of IPV perpetration but of women's victimization. In the current study, we seek to investigate how attachment insecurity will function in relation to IPV perpetration among a sample of college women. We suggest that attachment insecurity is the overarching mechanism that may lead to the maladaptive use of ER strategies, and consequently, IPV perpetration. In other words, an individual may learn their feelings or needs will not be attended to by their partner and in response may begin to suppress their emotions. Utilizing expressive suppression as a means of coping may eventually lead to the aggressive expression of the feelings that were once suppressed with the result potentially being IPV perpetration.

CHAPTER TWO
FACTORS CONTRIBUTING TO INTIMATE PARTNER
VIOLENCE PERPETRATION

Attachment

An important characteristic shared by male and female perpetrators of IPV is attachment insecurity (e.g., Follingstad et al., 2002; Orcutt, Garcia, & Pickett, 2005). Attachment styles have been extensively researched in both children and adults. When discussing adult attachment styles, it is important to understand the origins of attachment theory. Attachment theory was created based on children's attachment styles. Through extensive research, Bowlby, Ainsworth, Boston, and Rosenbluth (1956), developed an in-depth theory describing attachment styles in children. Attachment theory is based on how children form relationships of attachment with their parent or primary caregiver. According to Ainsworth and Bell (1970), attachment is behavior that creates a distinctive relationship with a person or object. The relationship is affectionate and usually induces a response from the person or object, which creates a series of interactions that solidify the relationship. Bowlby et al. (1956) grouped these relationships into four categories: secure attachment (e.g., an ability to separate from parent/caregiver without distress and to seek comfort when upset), avoidant attachment (e.g., having little preference for the parent over strangers and not seeking comfort when upset), disorganized/disoriented attachment (e.g., overt displays of fear and contradictory behaviors or emotions upon the parent/caregivers return), and

ambivalent attachment (e.g., experiencing great distress when a parent/caregiver leaves, and not finding comfort in the return of the parent/caregiver).

Bowlby (1982) described the attachment behavioral system as an innate psychological system that motivates human beings to seek comfort from supportive people (i.e., attachment figures) when in distress (e.g., seeking protection from threats). Positive interactions with attachment figures (e.g., attachment figure is available and responsive) will promote attachment security, an optimal function of the attachment system (Bowlby, 1982). Attachment security can create a sense that the world is safe and attachment figures can be trusted to be available when needed. This mental representation of self and others (similar to the concept of a schema or script) is referred to as a positive internal working model (IWM) which makes it more likely that a securely attached individual will explore the environment and the people around them (Bowlby, 1973/1982). When an attachment figure is not available and generally unsupportive, a negative IWM is formed and a sense of security is not achieved. Negative IWM (e.g., attachment figures are unreliable and the world is not safe) cause individuals to use inappropriate strategies of emotion regulation and proximity seeking such as avoidant attachment and anxious attachment (Bowlby 1973).

Further research by Hazan and Shaver (1987), adapted the attachment styles set forth by Bowlby and Ainsworth to adult attachment in love. Hazan and Shaver (1987) proposed three attachment styles demonstrated by adults in

intimate relationships: secure, avoidant, and anxious/ ambivalent. Through their research, Hazan and Shaver (1987) characterized securely attached lovers as having happy, friendly relationships built on trust. Despite their partner's faults, securely attached lovers emphasized being able to accept and support their partner. This classification is in line with Bowlby's (1970) secure attachment model. Hazan and Shaver (1987) characterized anxious/ambivalent lovers as having a general fear of abandonment and as wanting their partners to get closer to them than their partner typically preferred. Anxious/ambivalent individuals described experiences of emotional highs and lows with extreme attraction and jealousy. Their love experiences were filled with obsession and a desire for reciprocation and union. Avoidant lovers were characterized by Hazan and Shaver (1987) as having a fear of intimacy and a belief that romantic love seldom lasts. Like the anxious/ambivalent group, the avoidant lovers reported emotional highs, lows, and bouts of jealousy. These classifications are both congruent to Bowlby's (1970) model of insecure attachment.

A link between insecure attachment and anger and aggressive impulses has been observed in many studies (e.g., Follingstad et al., 2002; Rholes, Simpson, & Oriña, 1999; Simpson, Rholes, & Phillips, 1996). Using Gottman's (1979) dyadic interaction paradigm, which involves romantic partners jointly identifying and discussing a major or minor problem in the relationship, Simpson, Rholes, and Phillips (1996) conducted a study to examine conflict resolution among dating partners with different attachment styles. The authors found that

compared to individuals with a secure attachment style, individuals with an anxious attachment style were more likely to report and display greater amounts of anger and hostility while discussing an unresolved issue in their relationship with their dating partner. Individuals with an ambivalent attachment style who discussed a major relationship problem reported feeling more anger and hostility than did individuals with a secure attachment style (i.e., low ratings on anxious and ambivalent subscales) reported.

Rholes et al. (1999) examined how individuals with avoidant and ambivalent (composite of anxious and preoccupied) attachment styles reacted to the idea of having to engage in an anxiety-provoking task. Women were led to believe they would be engaging in a high anxiety-provoking situation, the exact nature of which was not described. After being told the “equipment” for their study was not finished being set up, the women were left with their relationship partners in a waiting room and their interactions were unobtrusively recorded for five minutes (stress period). Next, the couples were informed the women would not be engaging in the anxiety-provoking task due to “malfunctioning equipment” and the couple’s interactions were recorded for another five minutes (recovery period). The interactions were coded and analyzed to reveal that avoidant women exhibited greater anger if the stressor made them feel upset and in need of comfort. The authors explained the display of anger as a means of regaining emotional control in interpersonal situations (Rholes et al., 1999). Similarly, men with high avoidant attachment styles displayed more anger during the stress

period than did men with low avoidant attachment. Furthermore, highly avoidant individuals (men and women) who had partners who were angry during the stress period displayed the greatest levels of anger (Rholes et al., 1999). While these authors examined anger, it is likely their results would apply to IPV perpetration.

Follingstad et al. (2002) conducted an exploratory study to test a model to predict dating violence among men and women that included anxious attachment, angry temperament, and a need for control within relationships. In the Follingstad et al. (2002) study, angry temperament was a latent construct measured by the trait anger, verbal aggressiveness, anger control, and anger out subscales of the State Trait Anger Expression Scale (STAXI). The authors suggest that possessing an anxious attachment style may lead one to have an angry temperament, which then leads to a greater need for control in relationships resulting in a greater risk of perpetrating IPV (Follingstad et al., 2002). The direct paths from anxious attachment to angry temperament, angry temperament to control, and control to violence were all significant, indicating the predictive nature of these variables and the relationship among them (Follingstad et al., 2002).

Although the association between attachment insecurity and aggressive impulses has been well established in men and women, the association between attachment insecurity and aggressive behavior, such as psychological or physical aggression is not as well documented in adult women (e.g., Dutton & White,

2012). Examining adult attachment as a risk factor for IPV, Doumas et al. (2008) looked at 70 couples' responses on measures of adult attachment and incidences of IPV and found that couples with different insecure attachment styles were prone to higher levels of IPV. For example, relationships comprised of a man with avoidant attachment and a woman with anxious attachment had a higher likelihood of perpetration by men and women. Additionally, when controlling for partner violence, the relationship between attachment and IPV perpetration remained significant only for men (Doumas et al., 2008). This study provides evidence for the influence of attachment insecurity (i.e., avoidant and anxious) on the perpetration of IPV by men but not women.

In an investigation of female-perpetrated IPV among a sample of college students, Orcutt et al. (2005) utilized the CTS-2 and the ECR-R to explore the relationship between IPV perpetration and attachment insecurity. Participants were classified into one of four groups: nonviolent, perpetrator-only, victim-only, and bidirectionally violent based on their responses to the CTS-2. Results of this investigation indicated that women in the bidirectionally violent group reported the highest attachment anxiety of all four groups, with a significant difference observed between the non-violent women and the bidirectionally violent women. Also of interest, women higher in attachment anxiety, but lower in avoidance reported engaging in significantly more physical assault perpetration than did women higher in both anxiety and avoidance (Orcutt et al., 2005). This is one of

the first studies providing support for the link between attachment insecurity and female-perpetrated IPV.

Goldenson, Geffner, Foster, and Clipson (2007) explored attachment insecurity, trauma symptoms and personality organization among a sample of 33 women in a court-mandated domestic violence offender program in comparison to a sample of 32 non-offending women. In addition to completing measures of trauma symptoms (e.g., posttraumatic stress disorder and acute stress disorder) and personality organization (e.g., histrionic, narcissistic, borderline), participants completed the ECR-R. In line with the findings of Orcutt et al. (2005), women in the court-mandated offender group reported more attachment insecurity (anxious and avoidant) than did women in the clinical comparison group. The women in the offender group reported more attachment anxiety than avoidance. The results of these studies (i.e., Goldenson et al., 2007; Orcutt et al., 2005) provide support for the role of attachment insecurity in female-perpetrated IPV and emphasize the need for further exploration into the underlying mechanisms of attachment insecurity and IPV perpetration.

Emotion Regulation

Another characteristic shared by male and female perpetrators of IPV is difficulties in regulating emotion (Bushman, Baumeister, & Phillips, 2001; Maldonado, DiLillo, & Hoffman, 2015). There has been considerable debate over

how to define ER; the definition given by Gross (1998b) will be utilized for this investigation. Gross (1998b) defines ER as “the processes by which individuals influence which emotions they have, when they have them, and how they experience and express these emotions” (pg. 275). There are automatic forms and deliberate forms of emotion regulation. An automatic emotion regulatory response may include diverting one’s attention away from an aversive image, whereas a deliberate emotion regulatory response may involve suppressing one’s tears during a sad movie (Robertson, Daffern, & Bucks, 2012). Baumeister et al. (2002) identified four domains of self-control: thoughts, emotions, impulses, and performance. Controlling the thoughts and emotions are an essential part of controlling the impulses and the performance (Baumeister et al., 2002). ER strategies such as cognitive reappraisal and expressive suppression are an important factor in the process of controlling thoughts and emotions.

Due to the impactful role of these ER strategies on controlling one’s thoughts and emotions, cognitive reappraisal and expressive suppression are two of the most widely studied components of ER. Cognitive reappraisal involves changing how one appraises a situation or event to alter the significance of the emotional impact and occurs primarily before the emotion is fully generated (Robertson et al., 2012; Samson & Gross, 2012). Cognitive reappraisal is typically used to decrease negative affective states, but it is possible to also increase positive affective states (Samson & Gross, 2012). Expressive suppression serves as a response modulator in which an individual attempts to inhibit the expression

of positive or negative affective behavior and is used after the emotional response is generated (Gross & John, 2003; Robertson et al., 2012).

Studies have shown that expressive suppression leads to a decrease in positive, but not negative emotional experiences (Gross, 1998b; Gross & Levenson, 1997). Cognitive reappraisal, on the other hand, has been shown to decrease negative emotional states and increase positive emotional states (Feinberg, Willer, Antonenko, & John, 2012). The inherent nature of emotion regulation, as defined here, is not adaptive or maladaptive. Rather, the functionality of these ER strategies is determined by an individual's ability to contain a difficult emotion experience and to sufficiently continue to engage in goal-directed behaviors (Gratz & Roemer, 2004; Robertson et al., 2012). These strategies can be adaptive when utilized flexibly (e.g., using various ER strategies during a difficult emotional situation), but if they are applied rigidly (e.g., relying exclusively on expressive suppression during difficult emotional situations), they may become problematic (Robertson et al., 2012). For instance, utilizing cognitive reappraisal and/or expressive suppression consistently to impede the development of the emotion experience is considered an over-regulation of emotions, which has been linked to increases in aggression (Blackburn, 1986; Gratz & Roemer, 2004; Norstrom & Pape, 2010; Robertson et al., 2012).

Robertson et al. (2012) suggest that aggressive behavior may result from the over-regulation of emotions (e.g., using ER strategies to persistently impede

the emotion experience from unfolding). Over-regulation of emotion, specifically with respect to expressive suppression, can create an uneasy internal state that increases negative emotions such as anger and aggression (Robertson et al., 2012). Moreover, over-regulation of emotions may increase the likelihood of aggression by increasing physiological arousal in difficult situations and making it more challenging to resolve difficult situations (Robertson et al., 2012). Due to the tendency of individuals with an avoidant attachment style to favor emotional suppression (Cassidy & Kobak, 1988), it is very likely that these individuals will engage in maladaptive ER strategies such as expressive suppression and to a lesser extent cognitive reappraisal, which may then lead to increases in IPV perpetration. Furthermore, individuals with an anxious attachment style have been found to intensify their distress and ruminate about stressful situations, leaving them prone to prolonged bouts of anger; however, they may suppress their feelings of anger out of fear of separation from their partner (Mikulincer & Shaver, 2011).

Lilly and Mercer (2014) examined the interacting effects of ER difficulties, world beliefs, and IPV perpetration among female perpetrators by administering measures of ER (Difficulties in Emotion Regulation Scale [DERS]; Gratz & Roemer, 2004), world assumptions (World Assumptions Scale [WAS]; Janoff-Bulman, 1989), and incidences of IPV (Revised Conflict Tactics Scale [CTS-2]; Straus et al., 1996). Their examination yielded results linking the three variables. Of greatest interest for the purpose of the current study, the outcome of Lilly and

Mercer's study illustrated that greater difficulties regulating one's emotions has a positive association with increased reports of physical and psychological IPV perpetration (2014). Also of interest, Stuart et al. (2006) conducted a study with a sample of 87 women in violence intervention programs to investigate reasons contributing to IPV perpetration utilizing a questionnaire assessing 29 reasons for IPV perpetration. Generally, the women reported being frequently victimized by their partners as well and engaging in high rates of aggression toward their partner. Furthermore, the results identified poor ER as a prime contributor to IPV perpetration in addition to self-defense, provocation from partner, and retaliation for past abuse. Taken together, these studies demonstrate a clear role of ER in IPV perpetration.

Most recently, Maldonado et al. (2015) conducted an experiment in which they manipulated participants' use of ER strategies in an effort to examine how the use of different ER strategies may alter individuals' aggression-risk behaviors (i.e., aggressive verbalizations) in their intimate relationships. In line with I³ theory, Maldonado et al. (2015) examined expressive suppression as an impelling force and cognitive reappraisal as an inhibiting force. Participants with a history of IPV who were trained to use expressive suppression exhibited greater aggressive verbalizations than did participants in the cognitive reappraisal condition and those in the control condition (Maldonado et al., 2015). These results suggest that expressive suppression is maladaptive in situations that may provoke aggressive behavior, whereas, cognitive reappraisal may serve a more

adaptive function in these situations. Of greatest importance, the Maldonado et al. (2015) study is one of the few studies to date, that has looked at cognitive reappraisal and expressive suppression as it relates to aggression-risk behaviors.

Attachment, Emotion Regulation, and Intimate Partner Violence

While there are several studies that have explored the relationship among attachment insecurity, ER strategies, and aggression (e.g., Babcock, Jacobson, Gottman, & Yerington 2000; Creasy & Hesson-McInnis, 2001; Robertson et al., 2012), few have examined how attachment insecurity and the use of specific ER strategies (i.e., expressive suppression and cognitive reappraisal) relate to actual aggressive behaviors. Babcock et al. (2000) explored the associations among attachment, emotion regulation, and marital violence between violent and nonviolent husbands using the Adult Attachment Interview (AAI; Main & Goldwyn, 1994). The AAI classifies respondents according to a four-category model (i.e., secure, dismissing, preoccupied, and unresolved) as opposed to the more widely used anxious and avoidant classifications. The authors describe attachment insecurity as a continuum of deactivation and hyperactivation of attentional systems used to regulate one's emotions. In this study, attachment insecurity was viewed as an inability to regulate one's emotions in an adaptive manner (Babcock et al., 2000). The violent husbands were nearly twice as likely to be classified into an insecure attachment style than were the nonviolent

husbands suggesting that insecure attachment, and as an extension, emotion regulation is associated with partner violence among men.

Our literature review thus far has not produced evidence of a study that has simultaneously examined attachment insecurity (i.e., anxious and avoidant) and ER strategies (i.e., cognitive reappraisal and expressive suppression) as they relate to IPV perpetration in males or females. The studies we have reviewed examine aggressive impulses and affect, with these factors intended to measure aggression or risk for aggression. According to attachment theory, interpersonal anger is thought to stem from a lack of attachment needs being met. The anger is a form of protest that serves as an attempt to regain or maintain contact with an attachment figure (Bowlby, 1982). When examined under the adult attachment perspective, the attachment figure is usually the romantic partner and the anger can take the form of verbal or physical abuse (Dutton, 2011; Mikulincer & Shaver, 2011). Several studies have linked attachment styles and emotion regulation strategies stating that the IWM created by attachment patterns serve a function of regulating one's emotions (e.g., Cassidy, 1994; Thompson, 1994; Zimmerman, 2000).

Zimmerman (2000) suggests that when an individual feels insecure, the main role of the IWM is to regulate negative feelings. Although Zimmerman (2000) did not specify expressive suppression and cognitive reappraisal as emotion regulation strategies that may be possible mechanisms of regulating one's emotions, we propose that these ER strategies can easily serve as a

means of coping with negative feelings. Thompson (1994) suggests that emotion regulation strategies are developed within the parent-child relationship and the parents can serve as models of appropriate emotional responses to various social demands. Following this perspective, it makes sense that attachment insecurity, a maladaptive IWM developed early in life and dependent on the parent-child relationship, would interfere with individuals' ability to effectively regulate their emotions.

To understand the relationship between attachment styles and dispositional mindfulness, Pepping, Davis, and O'Donovan (2013) looked at difficulties in emotion regulation as a possible mediating factor. Utilizing the ECR-R questionnaire to assess attachment and the DERS to assess emotion regulation, the authors found evidence of a mediated relationship between attachment insecurity and mindfulness that was facilitated by difficulties in emotion regulation. Specifically, attachment insecurity (i.e., anxious and avoidant) had a significant negative indirect effect on mindfulness through difficulties in emotion regulation and a non-significant direct effect when controlling for emotion regulation (Pepping et al., 2013). This study provides empirical evidence that attachment styles and difficulties with emotion regulation are closely related and that the effects of attachment insecurity can be mediated by difficulties in emotion regulation.

Examining conflict tactics of late adolescents in relation to their affective responses and cognitive appraisals, Creasy and Hesson-McInnis (2001)

administered the Relationship Styles Questionnaire (RSQ; Griffin & Bartholomew, 1994) to assess attachment styles and a single-item measure to assess affect during arguments. The authors designed a 10-item measure to assess cognitive appraisals, specifically regarding confidence in coping with negative emotions and behaviors during conflicts with romantic partners. Additionally, the Managing Affect and Differences Scale (MADS; Arellano & Markman, 1995) was utilized to assess conflict management tactics (Creasy & Hesson-McInnis, 2001). Results of a path analysis revealed that more insecurely attached individuals reported reduced use of positive conflict management strategies and greater use of negative strategies. Of greatest importance to the current study, the path from insecure attachment and conflict management difficulties was not direct nor automatic (Creasy & Hesson-McInnis, 2001). We suggest this may be due to the indirect influence of difficulties in the use of ER strategies.

Based on the ideas of I³ theory (Finkel et al., 2009; Slotter & Finkel, 2011) a variable that contributes to aggression may function as a force that increases the likelihood of aggression and a force that decreases the likelihood of aggression depending on the context of the situation, the role of the variable, and possibly the level of the variable. In the current study, we seek to illustrate that attachment insecurity, a dispositional risk factor and impelling force in IPV perpetration, and ER, a form of dispositional self-control and inhibiting force, may function to increase or decrease the likelihood of an individual being able to

override their aggressive urges. At high levels, suggesting rigidity (i.e., utilizing only one strategy) in application, ER strategies can be an impelling force that makes it more difficult for individuals to override their aggressive urges leading to perpetration of violence. At weaker levels, indicating more flexibility (e.g., utilizing various ER strategies) in application, ER strategies may function as an inhibiting force that allows individuals to override their aggressive urges and avoid perpetrating violence. Because insecure attachment has been linked to difficulties with adaptive uses of ER strategies (Ben-Naim, Hirschberger, Ein-Dor, & Mikulincer, 2013) and both characteristics have been linked to IPV perpetration (e.g., Bushman et al., 2001; Follingstad et al., 2002; Maldonado et al., 2015; Orcutt et al., 2005), it makes sense that the relationship between these variables should be explored further.

CHAPTER THREE

CURRENT STUDY

Purpose

The body of research on IPV has identified several factors that contribute to the incidence of IPV perpetration including insecure attachment (e.g., Carney & Buttell, 2005; Orcutt et al., 2005) and ER strategies (e.g., Gratz & Roemer, 2004; Gratz, Paulson, Jakupcak, & Tull, 2009; Jakupcak, 2003). It is presumed that aggressive affect and impulses will lead to aggressive behavior, however, many of the studies examining insecure attachment and ER strategies as they relate to IPV do not measure actual aggressive behaviors within a relational context (i.e., IPV). The purpose of the present study was to elucidate the underlying mechanisms of IPV perpetration. Specifically, we aimed to determine how insecure attachment (i.e., anxious and avoidant) and ER strategies (i.e., cognitive reappraisal and expressive suppression) influence IPV perpetration among women. We suggest that the aggression that precedes IPV perpetration may be a result of difficulties regulating one's emotions, which stems from attachment insecurity. Our hypotheses were as follows:

1. We hypothesized insecure attachment would have a positive relationship with IPV perpetration. Anxious attachment would have a stronger association with IPV perpetration than would avoidant attachment.

2. We predicted ER strategies would be significantly associated with IPV perpetration. Specifically, cognitive reappraisal would have a negative relationship with IPV perpetration, whereas expressive suppression would have a positive relationship with IPV perpetration.
3. We hypothesized insecure attachment styles would be associated with less effective ER strategies (i.e., expressive suppression). Expressive suppression would have a positive relationship with insecure attachment styles. Cognitive reappraisal would not be associated with insecure attachment styles.
4. We predicted the relationship between IPV perpetration and insecure attachment would be mediated by the ER strategies expressive suppression and cognitive reappraisal.

Method

Participants

The sample for the present study was comprised 157 female university students enrolled in Social and Behavioral Sciences courses at California State University, San Bernardino (CSUSB). Participants were recruited via SONA, the online research management system and all respondents received two points of credit for their participation in this study. Participants ranged in age from 18-52 ($M = 22.5$, $SD = 5.3$). In terms of ethnicity, much of the sample identified as Latino ($n = 113$, 72%). In terms of racial background, many participants indicated

their racial background as Caucasian ($n = 62$, 39.5%) followed by Other/Bi-racial ($n = 56$, 35.7%). Other relevant sample demographics and characteristics can be found in Table 1.

Materials

Experiences in Close Relationships - Revised (ECR-R; Fraley, Waller, & Brennan, 2000). The ECR-R measures levels of security in current relationships. Levels of security are assessed through two subscales, "Anxiety" and "Avoidance." Lower scores indicate a higher level of security. All items are rated on a 7 point Likert-type scale ranging from 1 ("*Strongly Disagree*") to 7 ("*Strongly Agree*"). Sample items include "I don't feel comfortable opening up to romantic partners" and "I'm afraid that I will lose my partner's love" (see Appendix C). For the current study, items were modified such that terms "others" and "people" were used in place of the term "partner." We modified the terms to best assess attachment via all relationships (see Appendix C). Internal consistency analyses conducted on the current sample yielded excellent results: anxiety ($\alpha = .93$), avoidance ($\alpha = .94$).

Emotion Regulation Questionnaire (ERQ; Gross & John, 2003). The ERQ is a 10 item self-report instrument designed to assess individual differences in the habitual use of two ER strategies: cognitive reappraisal and expressive suppression. All items are rated on a 7 point Likert-type scale ranging from 1 ("*Strongly Disagree*") to 7 ("*Strongly Agree*"). Sample items include "I control my

emotions by not expressing them” and “I control my emotions by changing the way I think about the situation” (see Appendix D). Internal consistency analyses conducted on the current sample yielded good results: expressive suppression ($\alpha = .82$), cognitive reappraisal ($\alpha = .87$).

Revised Conflict Tactics Scale (CTS-2; Straus, Hamby, McCoy, & Sugarman, 1996). The CTS-2 consists of 78 short statements that were expanded from the original 19 item CTS (Straus & Gelles, 1986). The CTS-2 was expanded to include two new subscales (Sexual Coercion Scale, Injury Scale) along with additions and modifications to the Psychological Aggression Scale and Physical Assault Scale. The entire Negotiation Scale has also been replaced with new items. On a 7-point scale, participants rate the extent to which each item has happened in their close relationship within the last year. Participants are also given the option to indicate the incident never occurred or the incident occurred in their relationship, but not in the last year. Sample items include “I kicked my partner” and “My partner kicked me” (see Appendix E). Internal consistency analyses conducted on the current sample yielded excellent results: perpetration, ($\alpha = .91$).

Procedure

Participants were given an informed consent form (see Appendix A) notifying each participant that the study is designed to investigate characteristics of people who adjust well after traumatic events, as compared to those who may

have more difficulties adjusting after a traumatic event. Participants accessed the online survey on Qualtrics.com via SONA. After completing the informed consent, participants were directed to the self-report measures assessing attachment style, emotion regulation strategies, and incidences of intimate partner violence. The order of survey presentation was randomized. Upon completion of the survey, participants were directed to the debriefing form that informed them about the purpose of the study in detail. The debriefing form also informed the participants that no deception was used in this study. Additionally, counseling resources were offered to all participants in the instance they felt the need to discuss their experiences (see Appendix F). Once the debriefing was read, participants were thanked for their participation and granted 2 units of credit toward a course of their choice.

Data Analysis

Correlation analyses were used to determine the strength of the relationship among insecure attachment, emotion regulation, and intimate partner violence. Bootstrapping techniques suggested by Hayes (2013) were used to analyze our main hypothesis that ER mediates the relationship between insecure attachment and intimate partner violence.

CHAPTER FOUR

RESULTS

Preliminary Analyses

Of the 177 participants recruited, 20 cases were removed based on screening criteria (16 cases for duration violation, 4 cases for ± 3.5 standard deviations from the mean of the IPV perpetration scale) comprising a final sample of 157 college women. Participants reported perpetrating an average of 13.32 ($SD = 21.89$) acts of partner violence in the year preceding data collection. The mean score for anxious attachment was 59.58 ($SD = 21.96$) and for avoidant attachment was 50.65 ($SD = 20.04$). The mean score for expressive suppression was 14.78 ($SD = 5.73$) and for cognitive reappraisal was 28.86 ($SD = 7.13$).

Correlation Analyses

The relationship between attachment styles, ER strategies, and IPV perpetration was investigated using the Pearson product-moment correlation coefficient. A correlation matrix of the variables of interest can be found in Table 2. Consistent with the first hypothesis, insecure attachment had a significant positive association with IPV perpetration. Specifically, anxious ($r = .27 p < .01$) and avoidant ($r = .21 p < .01$) attachment were significantly positively associated with IPV Perpetration. As predicted in the second hypothesis, the ER strategy expressive suppression had a significant positive correlation with IPV

perpetration ($r = .20, p < .05$). Cognitive reappraisal was not significantly associated with IPV perpetration. Consistent with the third hypothesis, attachment insecurity had a significant association with maladaptive ER strategies. Specifically, anxious and avoidant attachment were positively associated with expressive suppression ($r = .17, p < .05$ and $r = .39, p < .01$, respectively). Cognitive reappraisal was not significantly associated with the insecure attachment styles.

Mediation Analyses

Mediation analyses were conducted using bootstrapping techniques suggested by Hayes (2013) to examine the relationship between attachment insecurity, expressive suppression, and IPV perpetration. Due to the lack of significant associations among cognitive reappraisal, insecure attachment styles, and IPV perpetration, mediation analyses were only conducted utilizing the emotion regulation strategy expressive suppression as a mediator. As illustrated in Figure 1, the unstandardized regression coefficient between anxious attachment and expressive suppression was statistically significant, as was the unstandardized regression coefficient between expressive suppression and IPV perpetration. A bias-corrected bootstrap confidence interval for the indirect effect ($ab = .03$) based on 1,000 bootstrap samples was entirely above zero [CI = .0028 to .0863]. The influence of anxious attachment on IPV perpetration was partially

mediated by expressive suppression ($c = .27, p < .001; c' = .24, p = .002, F(2,154) = 8.24, p < .01, R^2 = .10$).

As illustrated in Figure 2, the unstandardized regression coefficient between avoidant attachment and expressive suppression was statistically significant, however the unstandardized regression coefficient between expressive suppression and IPV perpetration was non-significant. A bias-corrected bootstrap confidence interval for the indirect effect ($ab = .06$) based on 1,000 bootstrap samples was entirely above zero [CI = .01 to .14]. There was no evidence that avoidant attachment influenced IPV perpetration independent of its effect on expressive suppression ($c = .23, p < .01, c' = .17, p = .06, F(2,154) = 5.02, p < .05, R^2 = .06$).

CHAPTER FIVE

DISCUSSION

This study investigated the role of attachment insecurity and emotion regulation strategies in predicting incidences of IPV perpetration among college women. In addition to replicating previous research that has found a positive association among attachment insecurity and IPV perpetration, we were interested in exploring the role of the ER strategies expressive suppression and cognitive reappraisal in this relationship. In an effort to extend I³ theory, which emphasizes the importance of examining interactive effects contributing to IPV perpetration (Slotter & Finkel, 2011), we sought to demonstrate that impelling and inhibiting factors may also function in a mediated model contributing to greater risk of IPV perpetration. Specifically, we were interested in investigating the potential mediated models among attachment insecurity (impelling force) and female-perpetrated IPV through the use of the ER strategies expressive suppression and cognitive reappraisal (inhibiting force).

The results of the present study demonstrate meaningful associations among attachment insecurity, the ER strategy expressive suppression, and female-perpetrated IPV. The finding that attachment insecurity was positively associated with IPV perpetration is consistent with previous research suggesting insecure attachment leads to aggression, aggressive impulses, and greater risk of IPV perpetration (Bartholomew & Allison, 2006; Dumas et al., 2008; Rholes

et al., 1999; Simpson et al., 1996). The finding that both insecure attachment styles predicted greater engagement in female-perpetrated IPV contradicts previous research findings that attachment insecurity is predictive of IPV victimization and not perpetration (e.g., McKeown, 2014).

Consistent with previous research and as predicted, women who reported engaging in expressive suppression also reported engaging in more IPV perpetration than did women who reported using cognitive reappraisal. Previous research demonstrating a positive association between difficulties in emotion regulation and IPV perpetration utilized the DERS (e.g., Lilly & Mercer, 2014; Pepping et al., 2013), whereas we utilized the ERQ to measure the use of specific ER strategies. We were specifically interested in examining the role of expressive suppression and cognitive reappraisal as they relate to insecure attachment and IPV perpetration. We were also concerned with the poor discriminant validity the DERS has been shown to have with measures of depression (e.g., Ritschel, Tone, Schoemann, & Lim, 2015). Utilizing the ERQ allowed us to directly measure the ER strategies of interest and differentiate between emotion dysregulation and depression. Consistent with previous research, the results of the current study demonstrated an association between difficulties with emotion regulation and IPV perpetration; however, we have extended this association to the use of two specific emotion regulation strategies: expressive suppression and cognitive reappraisal.

To our knowledge, Maldonado et al. (2015) is the only study to date that examined expressive suppression and cognitive reappraisal in relation to IPV perpetration, however, these ER strategies were not measured, but manipulated through the use of different instructions given to participants. Furthermore, expressive suppression and cognitive reappraisal were examined in relation to aggression-risk behaviors (i.e., aggressive verbalizations). Our study used self-report measures to assess the use of expressive suppression and cognitive reappraisal strategies in relation to IPV perpetration (i.e., aggressive behaviors). The results of the current study provide support that the relationship among expressive suppression and IPV perpetration is quantitatively observable in addition to behaviorally observable.

Of greatest interest, the results of the mediation analyses demonstrate the underlying mechanism between female-perpetrated IPV and insecure attachment may be the maladaptive ER strategy expressive suppression. In other words, women with insecure attachment are more likely to utilize expressive suppression to regulate their emotions which increases their likelihood of engaging in IPV perpetration against their intimate partner. According to previous research, individuals with insecure attachment have differing reasons for preferring expressive suppression. Individuals with avoidant attachment are more likely to prefer expressive suppression of anger because their lack of emotional expression helps them avoid appearing invested in the relationship (Cassidy & Kobak, 1988) whereas individuals with an anxious attachment would prefer

expressive suppression of anger because their intense desire for closeness may be thwarted if they express anger toward their partner. Wegner, Schneider, Carter, and White's (1987) study on thought suppression helps shed some light on why the use of expressive suppression may lead to the expression of anger or aggression.

Wegner and colleague's (1987) "white bear" experiment on thought suppression demonstrated the act of suppression may produce the opposite of the intended effects. In other words, the suppression of thoughts can lead to a preoccupation with the thoughts one is trying to suppress. This preoccupation can lead to an expression of the previously suppressed thought, emotion, or impulse. This helps explain the potential for expressive suppression to lead to the expression of anger in the form of violence. In the context of this study, it is possible for an insecurely attached individual to harbor feelings of anger toward their partner and attempt to suppress those feelings out of fear of losing the partner (anxious attachment) or fear of displaying an investment in the relationship (avoidant attachment). The suppression of their anger may lead to the eventual expression of that aggression in the form of IPV.

The findings of the current study demonstrate cognitive reappraisal is not significantly associated with attachment insecurity nor IPV perpetration. This may reflect the adaptive nature of cognitive reappraisal. Experimental research has shown that cognitive reappraisal can lead to decreased levels of negative emotion experience and increased levels of positive emotion experience (e.g.,

Feinberg et al., 2012; Gross, 1998a). Furthermore, correlational research supports these experimental findings demonstrating people utilizing cognitive reappraisal experience and express more positive emotion and less negative emotion compared to people who do not utilize cognitive reappraisal (Gross & John, 2003). Aldao, Nolen-Hoeksema, and Schweizer (2009) conducted a metanalytic review of emotion regulation strategies across various domains of psychopathology (e.g., anxiety, depression, eating disorders, substance abuse) and found expressive suppression was positively associated with psychopathology with medium to large effect sizes whereas, cognitive reappraisal was negatively associated with psychopathology with small to medium effect sizes. As suggested by the authors, it is possible the effect of a maladaptive emotion regulation strategy (e.g., expressive suppression) may be more harmful than the positive impact of an adaptive emotion regulation strategy such as cognitive reappraisal (Aldao et al., 2009).

This investigation contributes to the current body of research and extends our theoretical understanding of IPV in several ways. First, these results provide further support for the role of attachment insecurity and difficulties regulating one's emotions in the perpetration of IPV. Moreover, this study provides evidence these factors are relevant in the investigation of female-perpetrated IPV. Furthermore, this study provides support that the specific ER strategy expressive suppression influences IPV perpetration. Of greatest importance, these results indicate these dispositional factors (i.e., attachment insecurity and the

maladaptive ER strategy of expressive suppression) form a mediated relationship to influence IPV perpetration. This finding builds upon I³ theory which emphasizes the importance of examining the interactive effects of instigating, impelling, and inhibiting factors in incidence of IPV perpetration. The current study provides evidence the association among impelling factors and inhibiting factors, at least at the dispositional level, may not always be a moderated interaction, but may also operate in an indirect, mediated fashion.

Results from the present study have important therapeutic implications. Attachment insecurity and maladaptive emotion regulation strategies should be addressed in treatment and intervention strategies. Attachment styles are developed in early childhood and influence how emotion regulation strategies are learned and utilized in different situations. Moreover, because of the developmental nature of attachment styles and ER strategies, preventative measures should be implemented among younger populations while these characteristics are still forming and have more malleability. Creating emotion regulation training for youth, particularly youth who have insecure attachment and/or difficulty with anger and aggressive behavior, may be beneficial in preventing IPV perpetration in their future relationships. Along the same line, focusing therapeutic attention on providing emotion regulation retraining for adults dealing with anger issues, aggressive behavior, and IPV perpetration may be particularly valuable in reducing the prevalence of IPV. Directing efforts toward developing therapeutic and intervention approaches that not only include

attachment and emotion regulation education and training, but also address the gender equity in perpetration would be beneficial.

Our study is not without limitation. Our study was comprised exclusively of college students which may limit the generalizability of these results. Although our study comprised female college students, we feel this strengthens our study due to the large body of research suggesting many IPV incidences occur in college-aged, dating couples (e.g., Linder & Collins, 2005; Linder, Crick, & Collins, 2002; Wolfe et al., 2001) and the lack of research on female-perpetrated IPV. The high prevalence of IPV among college-aged dating couples makes this sample generalizable to a large portion of the population shown to be involved in this phenomenon. In addition, our study was cross-sectional making it impossible to establish temporal precedence, and therefore speak to the direction of relationships between variables or causality (Chmura Kraemer, Kierna, Essex, & Kupfer, 2008). Statistical mediation analyses suggest likely causal pathways but without experimental manipulation, causality and the direction of relationships between variables cannot be confirmed. Also, although relationship status was assessed, participants were not screened for sexual orientation, thus restricting our ability to assess differences in heterosexual and same-sex relationships. Moreover, this study relied on self-report measures of attachment insecurity, ER, and IPV incidence, which are subject to over- and underreporting.

Given this is the first investigation of these specific measures of attachment insecurity and expressive suppression in relation to IPV perpetration

(to our current knowledge), further research needs to be conducted to replicate these findings. There are several directions for future research that would be advantageous to the body of research as well as therapeutic practices. In addition to exploring the nature of the relationship among these variables among a sample of men, future research should investigate the relationship among these variables within the context of the romantic relationship (heterosexual and same-sex) utilizing a longitudinal design, perhaps following couples for a few years to explore how these variables interact in a romantic relationship. Exploring the nature of the relationship among these variables among a clinical sample in treatment for experiences of IPV (perpetration and victimization) would also be valuable. Building on research like the Maldonado et al. (2015) study, creating an experimental paradigm that allows researchers to manipulate the use of emotion regulation strategies and observe aggressive behavior among romantic dyads with insecure attachment would allow researchers to gain a better understanding of the more complex interactions between attachment insecurity, ER, and IPV.

Table 1. Demographics and Relevant Sample Characteristics.

Variable	<i>M(SD)</i>	<i>n(%)</i>	Range
<i>Gender</i>			
Female		157(100)	
Age	22.46(5.26)	153	18-52
<i>Year in College</i>			
Freshman		31(19.7)	
Sophomore		22(14.0)	
Junior		59(37.6)	
Senior		45(28.7)	
<i>Marital status</i>			
Single		69(43.9)	
In a committed relationship		65(41.4)	
Living with significant other		11(7.0)	
Married		9(5.7)	
Divorced, or widowed		3(1.9)	
<i>Ethnic background</i>			
Hispanic or Latino		113(72.0)	
Not Hispanic or Latino		41(26.1)	
Unknown		3(1.9)	
<i>Racial background</i>			
Caucasian		62(39.5)	
Asian (Asian American)		6(3.8)	
African American		11(7.0)	
American Indian or Alaskan Native		2(1.3)	
Native Hawaiian/Pacific Islander		4(2.5)	
Other		56(35.7)	
Unknown		16(10.2)	

Variable	<i>M(SD)</i>	<i>n(%)</i>	Range
<i>Student Yearly Income</i>			
\$0 - \$14,999		120(76.4)	
\$15,000 - \$29,999		31(19.7)	
\$30,000 - \$44,999		2(1.3)	
\$45,000 - \$59,999		1(0.6)	
\$60,000 - \$74,999		2(1.3)	
\$75,000 - \$89,999		1(0.6)	
<i>Attachment Insecurity</i>			
Anxious	59.58(21.95)		17-102
Avoidant	51.05(20.43)		17-109
<i>Emotion Regulation</i>			
Expressive Suppression	14.78(5.73)		4-27
Cognitive Reappraisal	28.86(7.13)		9-42
<i>IPV Perpetration</i>	13.32(21.89)		0-160

Table 2. Pearson Correlations among Insecure Attachment, Emotion Regulation, and Intimate Partner Violence Perpetration.

	IPV Perpetration	Anxious Attachment	Avoidant Attachment	Expressive Suppression	Cognitive Reappraisal
IPV Perpetration					
<i>r</i>	1.00				
Sig. (2-tailed)	.				
Anxious Attachment					
<i>r</i>	.27	1.00			
Sig. (2-tailed)	.00**	.			
Avoidant Attachment					
<i>r</i>	.21	.50	1.00		
Sig. (2-tailed)	.00**	.00**	.		
Expressive Suppression					
<i>r</i>	.20	.17	.39	1.00	
Sig. (2-tailed)	.01*	.03*	.00**	.	
Cognitive Reappraisal					
<i>r</i>	-.03	-.11	-.01	.12	1.00
Sig. (2-tailed)	.74	.17	.94	.13	.

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

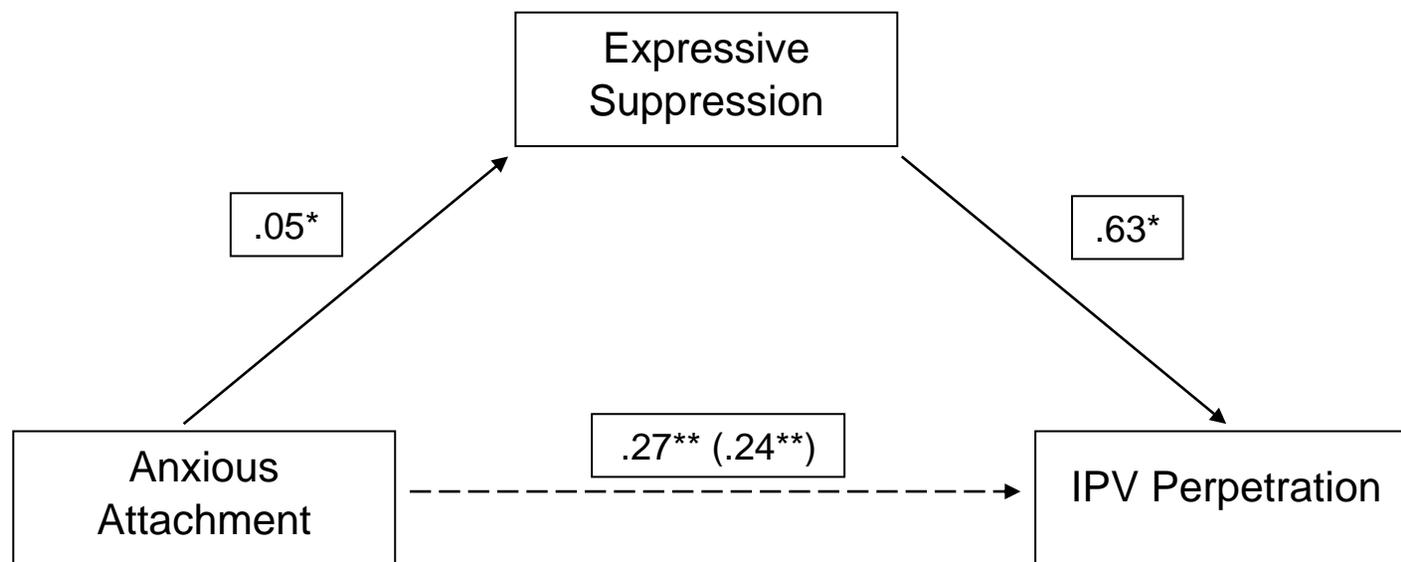


Figure 1. Relationship among Anxious Attachment, Expressive Suppression, and Intimate Partner Violence Perpetration. Unstandardized regression coefficients for the relationship between Anxious Attachment and IPV Perpetration as mediated by Expressive Suppression. The unstandardized regression coefficient between Anxious Attachment and IPV Perpetration, controlling for Expressive Suppression, is in parentheses.

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

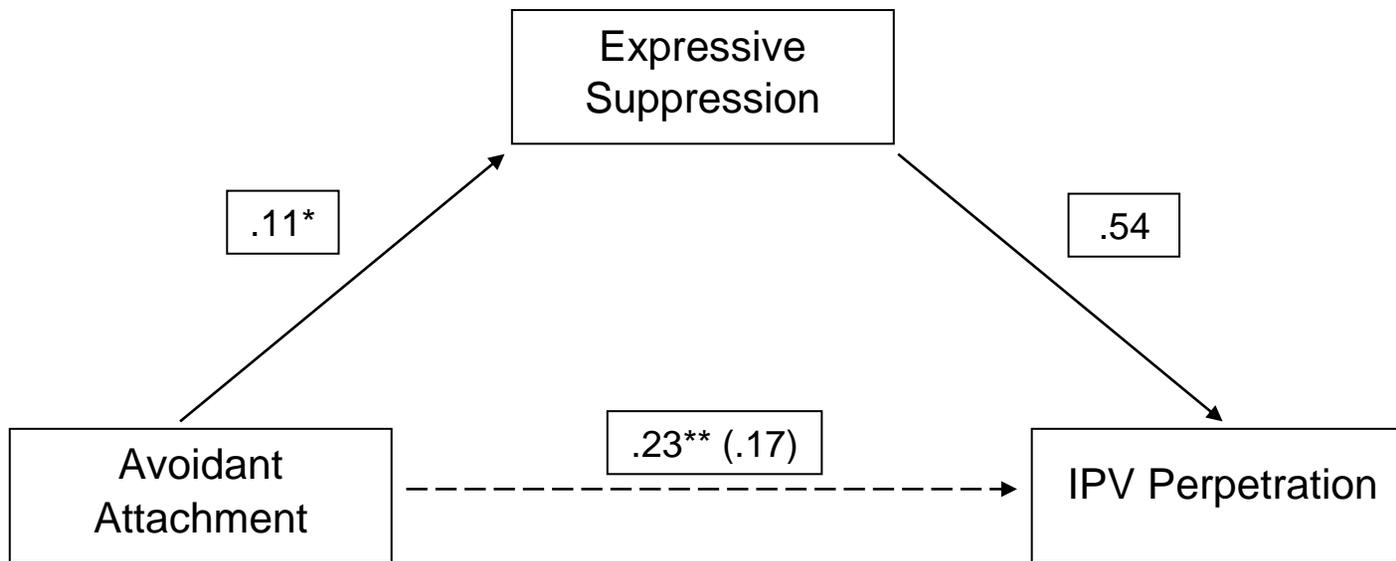


Figure 2. Relationship among Avoidant Attachment, Expressive Suppression, and Intimate Partner Violence Perpetration. Unstandardized regression coefficients for the relationship between Avoidant Attachment and IPV Perpetration as mediated by Expressive Suppression. The unstandardized regression coefficient between Avoidant Attachment and IPV Perpetration, controlling for Expressive Suppression, is in parentheses.

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

APPENDIX A
INFORMED CONSENT FORM

Informed Consent Form

Consent to Participate in Research

PROJECT TITLE: Experiences in Romantic Relationships

Investigators:

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APPROVAL STATEMENT:

This study has been approved by the Department of Psychology Institutional Review Board Sub-Committee of the California State University, San Bernardino, and a copy of the official Psychology IRB stamp of approval should appear on this consent form. The University requires that you give your consent before participating in this study.

DESCRIPTION:

Some individuals who experience stressful life events such as intimate partner violence, adjust fairly well, while others have more emotional difficulties. The purpose of this study is to investigate characteristics of those people who

adjust well after such events, as compared to those who may have more difficulties. In this manner, it may be possible to identify factors that may need to be addressed in order to lessen emotional distress following a stressful life event and promote resiliency. Based on your responses on the Sona pre-screen, you are eligible to participate in the present study. Participation in this study will require no more than 45 minutes. You will be asked to complete surveys about the strategies you may use to regulate your emotions, the attachment styles you may use, and incidences of intimate partner violence. Please note that there is no deception in this study, and we could not make this statement if there were any deception.

RISKS AND BENEFITS:

The benefits of participation include the gratifying experience of assisting in research which might have implications for the treatment of emotional disorders and difficulties. You will also receive a list of campus and community resources that may help you with emotional difficulties that you may be experiencing. If you are a CSUSB student, you may receive 2 points of extra credit in a selected Psychology class at your instructor's discretion. Minimal risks are possible with your participation in this study and include the possibility of short-term emotional distress resulting from recalling and completing surveys about stressful life experiences. It is very unlikely that any psychological harm will result from participation in this study. However, if you would like to discuss any distress you have experienced, do not hesitate to contact the CSUSB Psychological Counseling Center (909 537-5040).

VOLUNTARY PARTICIPATION:

Your participation in this study is entirely voluntary. You are free to withdraw your participation at any time during the study, or refuse to answer any specific question, without penalty or withdrawal of benefit to which you are otherwise entitled.

CONFIDENTIALITY STATEMENT:

As no identifying information will be collected, your name cannot be connected with your responses and hence your data will remain completely anonymous. All information gained from this research will be kept confidential. The results from this study will be submitted for professional research presentations and/or publication to a scientific journal. When the study results are presented or published, they will be in the form of group averages as opposed to

individual responses so again, your responses will not be identifiable. Results from this study will be available from Dr. Christina Hassija, after January 2016. Your anonymous data will be sent to the researcher in an electronic data file and stored for a period of 5 years on a password protected computer in a locked office and may only be accessed by researchers associated with this project.

RIGHT TO WITHDRAW:

You are free to refuse to participate in this study or to withdraw at any time. Your decision to withdraw will not result in any penalty or loss of benefits to which you are entitled. You may withdraw your participation by simply clicking the appropriate button to exit the study. If you choose to withdraw from the study you will still receive credit for your participation. Alternatively, you may also choose to leave objectionable items or inventories blank.

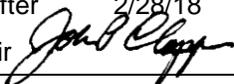
QUESTIONS OR CONCERNS:

If you have any questions or concerns regarding this study, please feel free to contact the Department of Psychology IRB Subcommittee at Psych.ird@csusb.edu. You may also contact the Human Subjects office at California State University, San Bernardino (909) 537-7588 if you have any further questions or concerns about this study.

Date

Participant's Printed Name

Participant's Signature

California State University			
Psychology Institutional Review Board Sub-Committee			
Approved	2/28/17	Void After	2/28/18
IBB #	H-17WI-14	Chair	

APPENDIX B
DEMOGRAPHICS QUESTIONNAIRE

1. What is your age?
2. What is your gender? (Please choose only one)
 - a. Male
 - b. Female
 - c. Other (please specify)
3. What is your ethnic background?
 - a. Hispanic
 - b. Not Hispanic
 - c. Unknown
4. What is your racial background?
 - a. Caucasian
 - b. Asian (Asian American)
 - c. African American
 - d. American Indian or Alaskan Native
 - e. Native Hawaiian/other Pacific Islander
 - f. Other (please specify)
5. What is your current marital status?
 - a. Single
 - b. In a committed relationship
 - c. Living with a significant other
 - d. Married
 - e. Divorced or widowed
6. Student yearly income:
 - a. \$0 - \$14,999
 - b. \$15,000 - \$29,999
 - c. \$30,000 - \$44,999
 - d. \$45,000 - \$59,999
 - e. \$60,000 - \$74,999
 - f. \$75,000 - \$89,999
 - g. \$90,000 - \$99,999
 - h. Over \$100,000
7. Year in college?
 - a. Freshman
 - b. Sophomore
 - c. Junior
 - d. Senior

APPENDIX C
EXPERIENCES IN CLOSE RELATIONSHIPS – REVISED

Experiences in Close Relationships - Revised (ECR-R)

Please answer the following questions on a scale of 0 to 7 about people you know:

(Anxiety Subscale)

1. I'm afraid that I will lose the love of others.
2. I often worry that people will not want to stay with me.
3. I often worry that others don't really love me.
4. I worry that people won't care about me as much as I care about them.
5. I often wish that people's feelings for me were as strong as my feelings for them.
6. I worry a lot about my relationships.
7. When others are out of sight, I worry that they might become interested in someone else.
8. When I show my feelings for others, I'm afraid they will not feel the same about me.
9. I rarely worry about people leaving me.
10. People make me doubt myself.
11. I do not often worry about being abandoned.
12. I find that people don't want to get as close as I would like.
13. Sometimes people change their feelings about me for no apparent reason.
14. My desire to be very close sometimes scares people away.
15. I'm afraid that once people get to know me, they won't like who I really am.
16. It makes me mad that I don't get the affection and support I need from others.
17. I worry that I won't measure up to other people.
18. Others only seem to notice me when I'm angry.

(Avoidance Subscale)

1. I prefer not to show people how I feel deep down.
2. I feel comfortable sharing my private thoughts and feelings with others.
3. I find it difficult to allow myself to depend on others.
4. I am very comfortable being close to others.
5. I don't feel comfortable opening up to others.
6. I prefer not to be close to others.
7. I get uncomfortable when others want to be very close.
8. I find it relatively easy to get close to others.
9. It's not difficult for me to get close to others.
10. I usually discuss my problems and concerns with others.
11. It helps to turn to others in times of need.
12. I tell others just about everything.
13. I talk things over with others.
14. I am nervous when others get too close to me.
15. I feel comfortable depending on other people.
16. I find it easy to depend on others.
17. It's easy for me to be affectionate with people.
18. Other people really understand me and my needs.

Fraley, R. C., Waller, N. G., & Brennan, K. A. (2000). An item-response theory analysis of self-report measures of adult attachment. *Journal of Personality and Social Psychology*, 78, 350-365. doi: 10.1037/0022-3514.78.2.350

APPENDIX D
EMOTION REGULATION QUESTIONNAIRE

Emotion Regulation Questionnaire (ERQ)

We would like to ask you some questions about your emotional life, in particular, how you control (that is, regulate and manage) your emotions. The questions below involve two distinct aspects of your emotional life. One is your emotional experience, or what you feel like inside. The other is your emotional expression, or how you show your emotions in the way you talk, gesture, or behave. Although some of the following questions may seem similar to one another, they differ in important ways. For each item, please answer using the following scale:

1-----2-----3-----4-----5-----6-----7

Strongly disagree

Neutral

Strongly agree

1. ____ When I want to feel more positive emotion (such as joy or amusement), I change what I'm thinking about.
2. ____ I keep my emotions to myself.
3. ____ When I want to feel less negative emotion (such as sadness or anger), I change what I'm thinking about.
4. ____ When I am feeling positive emotions, I am careful not to express them.
5. ____ When I'm faced with a stressful situation, I make myself think about it in a way that helps me stay calm.
6. ____ I control my emotions by not expressing them.
7. ____ When I want to feel more positive emotion, I change the way I'm thinking about the situation.
8. ____ I control my emotions by changing the way I think about the situation I'm in.
9. ____ When I am feeling negative emotions, I make sure not to express them.
10. ____ When I want to feel less negative emotion, I change the way I'm thinking about the situation.

Gross, J. J. & John, O. P. (2003). Individual differences in two emotion regulation processes: Implications for affect, relationships, and well-being. *Journal of Personality and Social Psychology*, 85(2), 348-362. doi: 10.1037/0022-3514.85.2.348

APPENDIX E
REVISED CONFLICT TACTICS SCALE

Revised Conflict Tactics Scale (CTS2)

RELATIONSHIP BEHAVIORS

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 happen when you have differences. Please circle how many times you did each of these things in the past year, and how many times your partner did them in the past year. If you or your partner did not do one of these things in the past year, but it happened before that, circle "7."

How often did this happen?

1 = Once in the past year

5 = 11-20 times in the past year

2 = Twice in the past year

6 = More than 20 times in the past year

3 = 3-5 times in the past year
happen before

7 = Not in the past year, but it did

4 = 6-10 times in the past year

0 = This has never happened

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 insulted or swore at me.
7. I threw something at my partner that could hurt.
8. My partner threw something at me that could hurt.
9. I twisted my partner's arm or hair.
10. My partner twisted my partner's arm or hair.

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 made me have sex without a condom.
17. I pushed or shoved my partner.
18. My partner pushed or shoved 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 used force (like hitting, holding down, or using a weapon) to make me have oral or anal sex.
21. I used a knife or gun on my partner.
22. My partner used a gun or a knife on 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 punched or hit me with something that could hurt.
29. I destroyed something belonging to my partner.
30. My partner destroyed something belonging 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 choked me.

35. I shouted or yelled at my partner.
36. My partner shouted or yelled at me.
37. I slammed my partner against a wall.
38. My partner slammed me against a wall.
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 did not.
42. My partner needed to see a doctor because of a fight with me, but did not.
43. I beat up my partner.
44. My partner beat me up.
45. I grabbed my partner.
46. My partner grabbed me.
47. I used force (like hitting, holding down, or using a weapon) to make my partner have sex.
48. My partner used force (like hitting, holding down, or using a weapon) to make me have sex.
49. I stomped out of the room, house, or yard during a disagreement.
50. My partner stomped out of the room, house, or yard during a disagreement.
51. I insisted on sex when my partner did not want to (but did not use physical force).
52. My partner insisted on sex when I did not want to (but did not use physical force).
53. I slapped my partner.
54. My partner slapped me.
55. I 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 used threats to make me have oral or anal sex.
59. I suggested a compromise to a disagreement.
60. My partner suggested a compromise to a disagreement.
61. I burned or scalded my partner on purpose.
62. My partner burned or scalded me on purpose.
63. I insisted my partner have oral or anal sex (but did not use physical force).
64. My partner insisted I have oral or anal sex (but did not use physical force).
65. I accused my partner of being a lousy lover.
66. My partner accused me of being a lousy lover.
67. I did something to spite my partner.
68. My partner did something to spite me.
69. I threatened to hit or throw something at my partner.
70. My partner threatened to hit or throw something at 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 kicked me.
75. I used threats to make my partner have sex.
76. My partner used threats to make me have sex.
77. I agreed to try a solution to a disagreement my partner suggested.
78. My partner agreed to try a solution I suggested.

Straus, M., Hamby, S., McCoy, S., Sugarman, D., (1996). The Revised Conflict Tactics Scales (CTS2). *Journal of Family Issues*, 17(3), 283-316.

APPENDIX F
DEBRIEFING FORM

Post-study Information Form

Some individuals who experience stressful life events adjust fairly well, while others have more emotional difficulties. The purpose of your participation in this study was to investigate characteristics of those people who adjust well after such events, as compared to those who may have more difficulties. In this manner, it may be possible to identify factors that may need to be addressed in order to lessen emotional distress following a stressful life event and promote posttraumatic growth.

There was no deception in this study, and we could not make this statement if there were any deception. The benefits of participation include the gratifying experience of assisting in research, which might have implications for the treatment of emotional disorders and difficulties. If you are a CSUSB student, you will receive 2 points of extra credit in a selected Psychology class at your instructor's discretion. Minimal risks are possible with your participation in this study and include the possibility of short-term emotional distress resulting from recalling and completing surveys about stressful life experiences. If you would like to discuss any distress you have experienced, do not hesitate to contact the CSUSB Psychological Counseling Center (909 537-5040).

Results from this study will be available from Dr. Christina Hassija, after June 2018. Any further questions concerning this study may be answered by Dr. Hassija at chassija@csusb.edu or 909-537-5481, or the Department of Psychology IRB Subcommittee at Psych.irb@csusb.edu. You may also contact the Human Subjects office at California State University, San Bernardino (909) 537-7588.

APPENDIX G
INTERNAL REVIEW BOARD APPROVAL FORM

Human Subjects Review Board
Department of Psychology
California State University,
San Bernardino

PI: Hassija, Christina; Robinson, Diana
From: John P. Clapper
Project Title: Experiences in Romantic Relationships
Project ID: H-17WI-14
Date: 2/28/17

Disposition: Administrative Review

Your IRB proposal is approved to include 188 participants. If you need additional participants, an addendum will be required. This approval is valid until 2/28/18.

Good luck with your research!



John P. Clapper, Co-Chair
Psychology IRB Sub-Committee

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