Childhood Abuse, Emotion Regulation, Alcohol, and Dating Violence Victimization as Cross-Sectional and Longitudinal Predictors of Dating Violence Perpetration among College Women

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Ellen E. Haynes
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This thesis titled
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by
ELLEN E. HAYNES

has been approved for
the Department of Psychology
and the College of Arts and Sciences by

Ryan C. Shorey
Assistant Professor of Psychology

Robert Frank
Dean, College of Arts and Sciences
Abstract

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Childhood Abuse, Emotion Regulation, Alcohol, and Dating Violence Victimization as Cross-Sectional and Longitudinal Predictors of Dating Violence Perpetration among College Women

Director of Thesis: Ryan C. Shorey

Physical and psychological dating violence is perpetrated by women at high rates on college campuses. Several risk factors have been identified that are associated with an increased risk of female-perpetrated dating violence, including a history of physical, sexual, and/or emotional abuse in childhood. Moreover, some research suggests that childhood abuse increases difficulties in emotion regulation, and these difficulties may be associated with a higher risk of perpetrating dating violence. Lastly, alcohol use and women’s psychological, physical, and sexual dating violence victimization in adulthood are consistent predictors of women’s dating violence perpetration. Using Bell and Naugle’s (2008) contextual framework of IPV and Finkel’s (2007) I3 model of combined risk factors as a guide, the present thesis examined a cross-sectional and longitudinal contextual model of women’s dating violence. Specifically, I examined emotion regulation as a mediator of the relationship between physical, sexual, and emotional childhood abuse history and physical and psychological dating violence perpetration, and examined alcohol use and adult dating violence victimization as moderators of this mediated path. Participants included 488 undergraduate women in dating relationships who completed online surveys at two time points separated by three months. Analyses
provided partial support for the hypotheses, such that emotion regulation mediated the relationship between childhood abuse and dating violence perpetration cross-sectionally, but not longitudinally. Analyses yielded no significant moderated mediated paths. Results provide support for the role of emotion regulation in women’s dating violence perpetration. Implications for future research are discussed.
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Introduction

Physical (e.g., hitting, kicking, slapping one’s partner) and psychological dating violence (e.g., insulting or threatening one’s partner) are perpetrated by women at alarming rates on college campuses. As gleaned from literature, utilizing primarily self-report data, upwards of 25% of women perpetrate physical violence and upwards of 80% of college women perpetrate psychological aggression annually (Dardis, Dixon, Edwards, & Turchik, 2015; Grover et al., 2008; Shorey, Cornelius, & Bell, 2008). Although female victims of dating violence often experience more severe injuries and mental health problems from male-perpetrated dating violence (Archer, 2000; Caldwell, Swan, & Woodbrown, 2012), male victims of female-perpetrated dating violence also experience serious negative consequences due to their victimization (e.g., Hines, 2007; Prospero, 2007). Despite the alarming prevalence of female-perpetrated dating violence, there has been a lack of longitudinal research on risk factors for dating violence perpetration by college women.

One well-established predictor of female perpetrated physical and psychological dating violence is a history of childhood abuse, past dating violence victimization, or both (e.g., Busby, Holman, & Walker, 2008; Edwards, Desai, Gidycz, & VanWynsberghe, 2011). Additionally, research indicates that childhood abuse contributes to emotion regulation difficulties (Thompson, Hannan, & Miron, 2014), that emotion regulation difficulties are associated with female perpetrated dating violence (Ortiz, Shorey, & Cornelius, 2015), and that emotion regulation difficulties mediate the association between childhood abuse and female-perpetrated dating violence in cross-sectional research (e.g.,
Lilly & Mercer, 2014). Research also shows that alcohol use increases the odds of dating violence perpetration by college women (Shorey, Stuart, Moore, & McNulty, 2014).

Some research implies that individuals with difficulty regulating emotions may be more susceptible to perpetrating dating violence when under the influence of alcohol (Shorey et al., 2014). Theoretically, since the presence of multiple risk factors can yield more deleterious effects than a single risk factor (Finkel & Eckhart, 2013), both alcohol use and prior adult dating violence victimization may serve as moderators of the relationship between emotion regulation and physical and psychological dating violence perpetration.

Thus, in a sample of college women, the present thesis cross-sectionally and longitudinally examined (1) whether emotion regulation mediated the association between childhood abuse and dating violence perpetration and (2) whether alcohol use and prior adult victimization moderated the mediated path of emotion regulation to dating violence perpetration.

**Female Perpetrated Dating Violence**

Psychological dating violence encompasses a range of behaviors that span from mildly coercive actions to a consistent pattern of coercive domination and control over one’s partner (Murphy & Hoover, 1999). Examples of psychological aggression include put downs, belittling, and intimidation (Murphy & Hoover, 1999). Physical dating violence includes behaviors such as hitting, kicking, or slapping one’s partner, attacking one’s partner with an object or weapon, or burning one’s partner (Straus et al., 1996). Although psychological aggression perpetration is highly correlated with physical aggression (Baker & Stith, 2008), it also occurs alone and at much higher rates than
physical aggression and can have deleterious consequences in the absence of any other form of aggression (Follingstad, 2007).

Research suggest that dating violence has deleterious consequences for male victims. In regards to psychological violence, male victims report experiencing heightened interpersonal problems that precede suicidal ideation (Wolford-Clevenger Elmquist, Brem, Zapor, & Stuart, 2015), mental health problems, including depression, anxiety, stress, anger, PTSD symptoms, and alcohol problems (Dahlen, Czar, Prather, & Dyess, 2013; Prospero, 2007; Shorey, Febres, Brasfield & Stuart, 2012; Shorey, Rhatigan, Fite, & Stuart 2011), and high levels of hostility and anxiety (Prospero & Fawson, 2010). Similar to psychological dating violence male victims of physical dating violence experience several negative consequences. For instance, men victimized by physical dating violence report psychological problems that heighten risk for suicide (Wolford-Clevenger, et al., 2015) and higher levels of suicidal ideation than non-victims (Chan et al., 2008). Men who experience physical dating violence victimization also report high rates of negative mental health consequences including symptoms of depression (Prospero, 2007; Shorey et al., 2011), anxiety (Shorey et al., 2011), posttraumatic stress disorder, (PTSD; Hines & Douglas, 2016; Shorey et al., 2012), increased use of alcohol and drugs (Cho & Huang, 2016; Shorey et al., 2011), and somatization (Prospero, 2007).

**Dating Violence Theoretical Considerations**

The present thesis utilized Bell and Naugle’s (2008) integrated contextual, behavioral theory of violence between intimate partners and Finkel’s (2014) I3 theory of
multiple risk factors. Bell and Naugle’s (2008) behavioral theory integrates many components of previous violence theories into one cohesive model. This theory’s components include antecedents (distal, static, and proximal), motivating factors, behavioral repertoire, discriminative stimuli, verbal rules, and consequences. Figure 1 contains a graphical representation of the Bell and Naugle (2008) model. The current thesis only focused on the components of proximal and distal antecedents, behavioral repertoire, and motivating factors, and these are briefly described below.

Antecedents refer to stimuli or events that precede the target behavior and impact the likelihood that the behavior will occur. Distal antecedents are temporally remote background variables that may not have a direct effect on the target behavior but are related through other variables (e.g., childhood abuse). Proximal antecedents exist temporally proximate to violence perpetration. These antecedents are context dependent, situational factors (e.g., relational conflict, including aggression from one’s partner). Motivating factors are antecedents, events, or conditions that can change the potency of reinforcers or punishments. These factors momentarily impact the likelihood that the target behavior will occur (e.g., an aversive state condition that increases the reward sought using the target behavior). Motivating factors increase the saliency of reinforcers to increase potential for violence. Examples of motivating factors include aversive physical states such as hunger or pain. Lastly, behavioral repertoire refers to the socially adaptive skill sets that an individual can perform competently under the appropriate conditions to attain a desired consequence. A stronger behavioral repertoire would decrease the likelihood of the target behavior occurring. Deficits in behavioral repertoire
can result in use of maladaptive behavior, such as the target behavior, to attain desired outcomes. Examples of behavioral repertoires include emotion regulation and conflict resolution skill.

Although the Bell and Naugle contextual model of dating violence is a useful guide, their theory does not provide guidance on how multiple risk factors for violence may interact. One theory of aggression perpetration that incorporates multiple risk factors is the I$^3$ theory (Finkel & Eckhart, 2013). I$^3$ theory (pronounced “I-Cubed”) states that behavior results from the interaction of three orthogonal processes, instigation, impellence, and inhibition. Instigation refers to an individual’s initial exposure to a stimulus that may elicit a behavioral response (e.g. one’s partner insults them). Impellence refers to situational or stable factors that increase an individual’s momentary likelihood to engage in a behavior (e.g. the individual has poor emotion regulation skills and cannot regulate distressing emotions). Greater impellence leads to a higher likelihood of aggression. Inhibition refers to situational or stable factors that increase an individual’s momentary likelihood to resist engaging in a behavior (e.g. lack of acute alcohol intoxication). Lower inhibition or a greater presence of disinhibiting factors (e.g. alcohol intoxication) lead to a greater likelihood of aggression.

According to I$^3$ Theory, violent behavior is most likely to occur in situations when an individual is instigated, impellance is high, and inhibition is low (Finkel, 2014). Additionally, multiple risk factors can interact within the three orthogonal processes. In conjunction with Bell and Naugle’s (2008) contextual theory, proximal and distal
variables may work together to simultaneously increase impellence or decrease inhibition and facilitate violent behavior.

**Applying the Bell and Naugle and I³ Models to the Present Study**

The present thesis focused on 8 factors that have been examined in prior research and supported as risk factors for female dating violence perpetration. These factors are physical, emotional, and sexual childhood abuse, adult physical, psychological, and sexual dating violence victimization, emotion regulation, and alcohol use.

**Childhood abuse and dating violence perpetration.**

As conceptualized for the current thesis, childhood abuse includes any form of physical, emotional, or sexual abuse from a caregiver or adult during one’s childhood. Any form of childhood abuse is a consistent predictor of both physical and psychological dating violence perpetraions among women (e.g., Berzenski & Yates, 2008; Busby, Holman, & Walker, 2008; Edwards, Desai, Gidycz, & VanWynsberghe, 2011), and the historic and static nature of childhood abuse define this variable as a distal antecedent of dating violence perpetration according to Bell and Naugle (2008). Childhood abuse also represents an impellence factor for violence according to I³ theory. Given the significant associations between emotional, physical, and sexual childhood abuse and later dating violence perpetration (discussed below), the present thesis will only examine these forms of childhood abuse.

**Adult victimization and dating violence perpetration.**

Adult dating violence is one of the most consistent and robust predictors of dating violence perpetration (e.g., Dardis, Dixon, Edwards, & Turchik 2015; Edwards et
al., 2009). Additionally, this relationship is stronger and more consistent among women (Dardis et al., 2013; Dardis et al., 2015; Herrera, Wiersma, & Cleveland, 2008). The present thesis will examine dating violence victimization as a distal antecedent. In the absence of assessment of specific dating violence incidents, it is impossible to determine the environmental context in which these behaviors occur and the temporal proximity of victimization to perpetration. Adult dating violence can also be considered in the I³ model. Theoretically, dating violence victimization could be considered an instigator (e.g., one’s partner slaps them and they kick him as a response) or impellence factor (e.g., an individual is more aggressively reactive due to their partner aggressing against them in the past).

**Emotion regulation and dating violence perpetration.**

Emotion regulation refers to one’s ability to successfully assess and cope with distressing emotional experiences. Emotion regulation is an example of a behavioral repertoire in Bell and Naugle’s (2008) contextual model, and of an impellence factor in the I³ model (Finkel, 2007). Deficits in emotion regulation have been found to predict psychological and physical dating violence perpetration by college women (e.g., Berzenski & Yates, 2009; Shorey, Brasfield, Febres, & Stuart, 2011). It has been theorized that individuals with poor emotion regulation may resort to violence in an attempt to regulate distressing emotional experiences, and that violence may therefore be reinforced if negative emotions decrease following perpetration (Bushman, Baumeister, & Phillips, 2001; Tull, Jakupcak, Paulson, & Gratz 2007). Studies have found that women may use aggression to avoid stress and to express emotions (Tull et al., 2007), to
avoid distressing emotions such as anger (Cohn, Jakupcak, Seibert, Hildebrant, & Zeichner, 2010), and to regulate angry affective states and stabilize their mood (Bushman, Baumeister, & Phillips, 2001). Thus, it is plausible that some women may use psychological or physical dating violence as a means to regulate negative emotions due to a lack of adaptive, non-violent, emotion regulation skills.

**Alcohol use and dating violence perpetration.**

Alcohol use can act as a motivating factor for dating violence. Alcohol intoxication represents an aversive physical state that can increase the likelihood of aggression occurring (Bell & Naugle, 2008). According to the I3 theory, alcohol would be a disinhibiting factor (i.e., would reduce one’s ability to override a desire to aggress; Finkel, 2007). Several studies support the notion that alcohol consumption by women is associated with increased physical and psychological dating violence perpetration (Baker & Stith, 2008; DuRant et al., 2007; Foran & O’Leary 2008), and this association may be especially pertinent among college students (Shorey, Stuart, & Cornelius, 2011). Daily longitudinal research also confirms the temporal relationship of alcohol use and dating violence perpetration by college women (Shorey et al., 2014). Thus, there is ample evidence to support an association between alcohol and female perpetrated dating violence.

**The Proposed Model**

As discussed in greater detail below, emotion regulation was examined as a mediator of the relationship between childhood abuse and college women’s dating violence perpetration. Additionally, the present thesis examined alcohol use and adult
dating violence experiences as moderators of this mediated pathway. The expected
direction was that at high levels of alcohol use and/or adult dating violence victimization,
the association between emotion regulation and dating violence perpetration would be
stronger than at low levels of alcohol use and/or dating violence victimization. While the
Bell and Naugle (2008) contextual model explains the co-occurrence of these variables in
facilitating dating violence perpetration, the I³ theoretical framework can be employed to
explain the specific moderating role of alcohol use and dating violence victimization. The
I³ theory dictates that multiple risk factors can work together to increase the likelihood of
a behavior occurring (Finkel, 2014). A graphical representation of the proposed model
with cross sectional data is depicted in Figure 2 and with longitudinal data in Figure 3.

**Childhood abuse, emotion regulation difficulties, and dating violence
perpetration.**

The mechanisms that link childhood abuse to later dating violence perpetration
are unclear and inconsistent in past literature. However, theory and research suggest that
emotion regulation deficits may be involved in mediating the relationship between
childhood abuse and dating violence perpetration among college women (Berzenski &
Yates, 2009; McLaughlin, 2016). Indeed, previous research has observed a link between
a history of childhood abuse and poorer emotion regulation (e.g. Banducci, Hoffman,
Lejuez, & Koenen 2014; Berzenski & Yates, 2009; Gardner, Moore, & Dettore, 2014)
with some suggesting that childhood abuse causes poorer emotion regulation (Thompson
et al., 2014).
Some research has examined emotion regulation as a mediator of childhood abuse and dating violence perpetration among college women. One cross-sectional study found that emotion regulation mediated the association between childhood emotional, physical, and sexual abuse and physical and psychological dating violence perpetration among college women (Berzenski & Yates, 2009). However, a limitation of this study was a lack of longitudinal methodology. A similar cross-sectional study examining emotion regulation as a mediator of the relationship between retrospective reports of physical or sexual childhood abuse and physical dating violence perpetration found that this relationship was only present for college men, not college women (Gratz, Paulson, Japucak, & Tull 2009). However, this study had several limitations. Specifically, this study only measured physical perpetration against a partner, and the vast majority of women did not have a partner (89%), thus the study may not have accurately captured women’s perpetration within dating relationships. Additionally, as other studies have found that emotion regulation is related to physical and psychological dating violence perpetration among women (e.g., Berzenski & Yates, 2009; Shorey et al., 2011), psychological dating perpetration may have been an important variable to consider in this study. Additionally, the study examined childhood abuse as a composite, dichotomous variable (i.e., yes/no physical or sexual abuse), and thus did not allow for a fine-grained analysis of individual types of childhood abuse. Lastly, the study did not measure childhood emotional abuse, which other research indicates has relevance to emotion regulation difficulties and aggression perpetration among adults retrospectively reporting childhood abuse (Berzenski & Yates, 2009) and children experiencing childhood abuse at
the time of study (Helaniak et al., 2016). Thus, further study is needed to clarify these relationships and improve upon limitations of past research, particularly in utilizing a longitudinal design to determine whether this mediated path remains across time.

**Alcohol, emotion regulation, and dating violence perpetration.**

As previously discussed, there is a wealth of research documenting alcohol use as a risk factor for female perpetrated dating violence. However, there is reason to suspect that alcohol use may influence the association between emotion regulation difficulties and women’s dating violence perpetration. Neurological research suggests that emotion dysregulation may occur due to deficits in the prefrontal cortex of the brain (Heatherton & Wagner, 2011). Additionally, research indicates that alcohol intoxication further impairs the functioning of prefrontal cortex (Alfonso-Loeches & Guerri, 2011). Thus, existing prefrontal cortex deficits would be enhanced through alcohol intoxication, rendering individuals high in emotion dysregulation at an increased risk for violence when they drink. Further, alcohol intoxication encourages responses to more salient informational cues (Bartholow, Sable, Pearson, Fabiani, & Gratton, 2013) and reduces individuals’ ability to recall distal information that would inhibit violence in similar circumstances under sober conditions (e.g., my partner did/said something earlier that clarifies their present actions), and decreases one’s ability to consider or assess future consequences of their behavior (Bushman, Giancola, Parrott, & Roth, 2012). Thereby, alcohol intoxication facilitates aggression through altering executive functioning and self-regulating functions that would inhibit violence under sober conditions (Eckhardt, Parrott, Sprunger, 2015).
Additionally, multiple threshold models of violence suggest that alcohol may interact with other situational and dispositional factors (e.g., personality, coping skills) to increase the risk for aggression (Parrot & Giancola, 2004). In the context of the current proposal, it is theoretically plausible, according to I³ theory and evidence from neurological research, that alcohol and emotion regulation difficulties would interact to increase the risk for dating violence perpetration, such that emotion regulation would be more strongly related to dating violence perpetration among women with higher levels, relative to lower levels, of alcohol use.

Some research has examined the interaction of emotion regulation and alcohol use in predicting violence perpetration, finding that combined alcohol use and poor emotion regulation increased violence perpetration (e.g., Stappenbeck & Fromme, 2015; Watkins, Maldonado, & DiLillo, 2014; Watkins, Dillillo, & Maldonado, 2015). These studies examined emotion regulation as a factor that may buffer the deleterious pharmaceutical effects of alcohol on aggression perpetration, thereby examining the relationship of alcohol use and dating violence perpetration at various levels of emotion regulation abilities. However, previous research has not looked at the relationship of emotion regulation and dating violence perpetration at various levels of alcohol use. Relying on the I³ theory’s explanations of how risk factors interact to increase the likelihood of a behavior’s occurrence (i.e., dating violence perpetration), the present thesis sought to examine alcohol use in a different manner than that of previous research due to the complexity of the present study’s contextual conceptualization of multiple risk factors. Although the specific relationship has not been studied, the literature in combination with
the I³ theory suggest that alcohol use may moderate the association between emotion regulation and dating violence perpetration. That is, emotion regulation difficulties may be more strongly related to dating violence perpetration among individuals with high, relative to low, alcohol use.

**Adult dating violence victimization, emotion regulation, and dating violence perpetration.**

As previously stated, dating violence victimization is one of the strongest predictors of perpetration among college women (e.g., Dardis et al., 2015). Despite the fact that victimization and poor emotion regulation are both known predictors of dating violence perpetration, there is a lack of research on the synergistic effect of these risk factors. Drawing from the I³ theory (Finkel, 2007), theoretically the combination of emotion regulation difficulties and dating violence victimization experiences would be more deleterious than either alone. Similar to multiple threshold models of violence which postulate that violence occurs when an individual’s threshold for inhibiting violence is exceeded (Fals-Stewart & Stappenbeck, 2003), the combination of prior adult victimization and poor emotion regulation abilities should increase the risk of one’s violence perpetration.

Thus, it is theoretically plausible that within a contextual model of dating violence (e.g., Bell & Naugle, 2008), prior dating violence victimization experiences may serve as a moderator of the relationship between emotion regulation and dating violence perpetration. That is, emotion regulation difficulties may be more strongly related to dating violence perpetration among individuals with more frequent adult dating violence
victimization experiences relative to individuals with less frequent adult victimization experiences.

**Current Study**

The purpose of the present thesis was to (1) examine whether emotion regulation mediated the association between childhood abuse (physical, sexual, and emotional) and dating violence perpetration (physical and psychological) among college women; (2) whether alcohol use moderated the mediated path of emotion regulation to dating violence perpetration; and (3) whether adult victimization moderated the mediated path of emotion regulation to dating violence perpetration. This research can help to determine malleable risk factors for prevention and intervention programs designed to prevent women from perpetrating dating violence in their relationships. Moreover, the present thesis also expanded upon a limitation of past research by examining the proposed mediated path, and moderators, both cross-sectionally and longitudinally (i.e., over a 3-month period). Including both cross-sectional and longitudinal models in the study enables the examination of whether cross-sectional relationships can be replicated with longitudinal data to determine whether these associations remain consistent over time among the same individuals. Understanding the consistency of cross-sectional associations over time has important implications for prevention and intervention efforts. Longitudinal data provides information regarding the temporal precedence of risk factors and outcomes, thus enabling researchers to have a more accurate information of possible causal relationships. If cross-sectional risk-factors for dating violence are not associated with dating violence longitudinally, their causal role in predicting dating violence would
be unclear, and thus targeting these risk factors in dating violence prevention or intervention programs may not be warranted.

The present thesis postulated several hypotheses.

(1) Emotion regulation would mediate the relationship between childhood abuse (physical, sexual, and emotional) and dating violence perpetration (physical and psychological) cross-sectionally and longitudinally. That is, childhood abuse would be related to poorer emotion regulation which, in turn, would be associated with more frequent dating violence perpetration.

(2) Alcohol use would moderate the mediating relationship of emotion regulation between childhood abuse and dating violence perpetration. That is, emotion regulation would be more strongly associated with dating violence perpetration among women with high, relative to low, alcohol use both cross-sectionally and longitudinally.

(3) Adult dating violence victimization (physical, psychological, and sexual) would moderate the mediating relationship of emotion regulation between childhood abuse and dating violence perpetration. That is, emotion regulation would be more strongly associated with dating violence perpetration among women with more frequent, relative to less frequent, prior dating violence victimization both cross-sectionally and longitudinally.
Methods

Procedure

Data was collected during Fall 2014, Spring 2015, Fall 2016, and Spring 2016 semesters. The study was advertised for college students who were 18 years of age or older and in a current dating relationship of at least 1 month. Interested students signed up for the study through the university’s psychology department subject pool. In order to be eligible for the study, all participants needed to be 18 years old or older and in a current dating relationship for at least one month at the time of the study. Participants were administered surveys at two time points separated by approximately three months (i.e., at the beginning and conclusion of each semester). Students were emailed links for the surveys to complete on Qualtrics.com where they also completed informed consents. Participants were compensated with course credit and received a debriefing form with resources for mental health and domestic violence. All procedures were approved by Ohio University’s Institutional Review Board.

Participants

At baseline, the sample consisted of 497 female students from a medium sized Midwestern university. For the current study, the sample was restricted to undergraduate students between the ages of 18-25 in order to reflect the typical undergraduate student age and length of relationship. Additionally, students who participated in the survey and reported that they did not meet the eligibility criteria of having been in their current relationship for at least 1 month were excluded from analyses. Thus, 4 participants were excluded from analyses for exceeding age 25, 2 participants were excluded due to the fact
that they reported being graduate students, 4 participants were excluded for endorsing extreme outlier responses, 6 participants were excluded who reported not being in a current dating relationship, and 3 participants were excluded because they did not meet the relationship length criteria. This resulted in a final sample of 478 participants at the first assessment.

The study sample was largely composed of first year undergraduate students: 56.7% \((n=271)\) indicated that they were freshman at the time they completed the survey, 25.9% \((n=124)\) were sophomores, and the remaining participants were composed of juniors 9.2% \((n=44)\), and seniors 7.1% \((n=34)\). Participants’ age ranged from age 18-25, and the mean age of participants was 18.96 \((SD=1.16)\). A large majority of the sample identified as Caucasian, \(86.2\%\), \(n=412\), and the remaining participants identified as multiracial \(3.6\%, n=17\), African American \(3.6\%, n=17\), Asian \(3.1\%, n=15\), “other” \(1.3\%, n=6\), Middle eastern \(0.8\%, n=4\), Native Hawaiian or Pacific Islander \(0.4\%, n=2\), or Native American or Alaska native \(0.2\%, n=1\). The majority of the sample \(95.6\%, n=457\) did not identify as Hispanic or Latino. Additionally, the majority identified as heterosexual \(94.8\%; n=453\). Participants’ relationship lengths varied from one month to 8 years and 2 months. The mean length of participant’s relationships was 18.26 months \((SD=16.48)\), and the majority of the sample denied living with their partner \(93.5\%, n=443\).

**Measures**

Additional psychometric information for each study measure is presented in Appendix I.
**Childhood abuse.**

Childhood abuse was examined using the childhood trauma questionnaire (CTQ-SF; Appendix D; Bernstein et al., 2003). The CTQ-SF is a 28-item inventory that measures emotional abuse (e.g., “my parents wished I was never born,”), physical abuse (e.g., “my parents hit me hard enough to leave bruises,”), sexual abuse (e.g., “I was touched sexually,”), emotional neglect (e.g., “I felt loved (reverse coded)”), and physical neglect (e.g., “I did not have enough to eat”). Participants were asked to indicate their agreement to items about their childhood and family using a 5-point scale (1=Never true, 5= Very often true). Each subscale includes 5 items. A total score for each type of abuse is calculated by summing all items that correspond to each type of abuse. This measure has demonstrated good overall reliability (α=.91) and acceptable reliability for all subscales (α’s=.58-.94) (Scher, Stien, Asmundson, McCreary, & Forde, 2001). The CTQ-SF is designed for use across a variety of populations, and is reliable and valid among diverse samples and used with both clinical and non-clinical populations (Bernstein et al., 2003). The factor structure and reliability of the CTQ-SF among a college student population are consistent with other samples (Paivo & Cramer, 2004), indicating that the CTQ-SF is valid measure of childhood abuse in college student samples. The present study only included the emotional abuse, physical abuse, and sexual abuse subscales. Consistent with prior research, these subscales demonstrated acceptable internal consistency in the current sample (emotional abuse, α=.89; Physical abuse, α=.79; Sexual abuse, α=.96). This measure was completed at time one.
Emotion regulation.

Emotion regulation was examined using the Difficulties in Emotion Regulation Scale (DERS; Appendix E; Gratz & Roemer, 2004). The DERS is a 36 item self-report measure that measures ones’ ability to effectively regulate emotional experiences and behavior. A total score is calculated by summing all items. Higher scores indicate more difficulty regulating emotions. The total DERS score was utilized for analyses in the present thesis. The DERS was administered at the first assessment only. The DERS has demonstrated construct validity when analyzed with other measures of emotion regulation, and good predictive validity of behaviors associated with emotion regulation difficulties (e.g., self-harm, dating violence perpetration; Gratz & Roemer, 2004). The DERS historically demonstrates good reliability (α’s >.80) (Gratz & Roemer, 2004). Consistent with past research, the internal consistency in the present sample was good (α=.95).

Alcohol use.

Alcohol use was examined using The Alcohol Use Disorders Identification Test (AUDIT; Appendix F; Saunders, Asaland, Babor, de la Fuente, & Grant, 1993). The AUDIT is a 10-item measure that assesses alcohol use and problems in the past year. Participants rated their agreement with the first seven items on a 5-point scale, and the final three items on a 3-point scale. Scores were calculated by summing items and can range from 0-40. Higher scores correspond to more alcohol-related problems. Questions refer to behavioral experiences while drinking (e.g., “How often do you have 4 (for women)/5 (for men) or more drinks on one occasion” and “Have you or someone else
been injured as a result of your drinking?”). The AUDIT is widely used among college students, and displays sound psychometric properties when used with this population (e.g. Aergeerts et al., 2000; Kokotailo et al., 2004). The AUDIT demonstrates high internal consistency (average α’s = .81-.93; Saunders, Aasland, Babor, de la Fuente, & Grant, 1993). The AUDIT was administered at both time points, and the second-time point referred to alcohol use during the 3-month interim. Only the first assessment of the AUDIT was used in analyses. In the current sample, the internal consistency of the AUDIT at the first assessment was good (α=.84).

**Adult physical and sexual dating violence victimization and physical perpetration.**

Physical dating violence perpetration and victimization and sexual dating violence victimization were measured using the Revised Conflict Tactics Scales (CTS2; Appendix H; Straus et al., 1996). The CTS2 is a 78-item questionnaire that assesses the amount of negotiation, physical assault, psychological aggression, sexual coercion, and injury that has occurred in an intimate relationship. Participants rated the number of times a particular behavior occurred in the previous year on a 7-point scale (0=Never; 6=more than 20 times). The sexual victimization subscale contains 7 questions (e.g., “my partner used threats to make me partner have sex”), the physical victimization subscale includes 12 questions (e.g., “My partner slammed me against a wall”), and the physical perpetration subscale contains 12 questions (e.g., “I pushed or shoved my partner”). Total scores for each subscale were obtained by summing the midpoints for each item (e.g., 3-5 times is recoded into 4; Straus, Hamby, & Warren, 2003). Higher scores correspond to
more frequent victimization and perpetration. Consistent with past research, internal consistencies of the present study’s variables of interest ranged from acceptable to excellent (physical perpetration, T1: $\alpha=.93$, T2 $\alpha=.97$; physical victimization, T1: $\alpha=.94$, T2: $\alpha=.98$; sexual victimization, T1: $\alpha=.69$, T2: $\alpha=.94$). The CTS2 is widely used among college students (e.g., Fossos et al., 2011; Shorey et al., 2011) and demonstrates good reliability and validity among diverse college student populations (Anderson & Leigh 2010; Straus, 2004). The CTS2 was administered at both time points, and the time 2 questions referred to behaviors during the 3-month interim.

**Adult psychological dating violence perpetration and victimization.**

Psychological dating violence perpetration and victimization were measured using the Multidimensional Measure of Emotional Abuse (MMEA; Appendix G; Murphy & Hoover, 1999). This 56-item scale measures emotional abuse based on the theory that emotional abuse is a complex construct and is not unidimensional, but rather it is composed of distinct subsets of behavior patterns. The measure was developed with dating female college students to determine subtypes of emotional abuse that constitute coherent behavioral patterns. Questions ask participants to indicate the frequency of each item occurring in the past year (e.g., 0= Never, 6=20+ times). Similar to the CTS2, items were calculated by recoding at the midpoint (e.g., “3-5 times” is recoded into 4) and summed to create a total score. The MMEA was administered at both time points, and the second time point asked participants about psychological aggression experiences during the 3-month interim. In the present study, the MMEA yielded good internal consistencies
(perpetration: total score, T1: $\alpha=.91$, T2: $\alpha=.93$ Victimization: total score, T1: $\alpha=.93$, T2: $\alpha=.96$).

For the present thesis, a composite score was calculated for adult dating violence victimization by summing CTS2 physical and sexual dating violence victimization scores and MMEA psychological dating violence scores. This was done due to no theoretical or empirical evidence suggesting that prior adult victimization would moderate the mediated path from childhood abuse to adult perpetration, through emotion regulation, differently based on the type of adult victimization.

**Integrity checks.**

Participant integrity was assessed using 2 questions to determine whether participants were attending to the survey and providing accurate responses. In the first question, participants were instructed to choose “Blue” from a list of colors. Five participants failed this integrity check by choosing a different color. In the second questions, students were asked if they were students at the University where the research was conducted and asked to indicate “yes” or “no.” All participants were students at the university thus “yes” was the correct answer. One participant failed this integrity check. No participants failed both integrity checks, thus all participants were included in analyses.

**Sample Size Determination**

Using G*Power software (Faul, Erdfelder, Buchner, & Lang, 2009), an appropriate sample size was determined for the current study using standard regression models. Including 10 predictors (psychological dating violence perpetration, physical
dating violence perpetration, emotion regulation, alcohol use, childhood physical victimization, child sexual victimization, child emotional victimization, adult physical dating violence victimization, adult psychological dating violence victimization, and adult sexual dating violence victimization), with a two-tailed test with an alpha of .05, power of .15, and a small-to-medium effect size, a sample size between 118 and 335 participants would be needed. Moreover, repeated assessments of the same individuals enhances power (Vickers, 2003). Thus, given the final fist assessment sample size for the present thesis of 478, the sample should provide adequate power for analyses.

**Data Analytic Plan**

Descriptive statistics (e.g., means, standard deviations, correlations) among study variables were examined using SPSS version 23.0. Structural equation modeling (SEM) was used to examine the primary aims and hypotheses of the current study, as this approach allowed for more flexibility, relative to traditional regression analyses, in examining complex moderated-mediated associations both cross-sectionally and longitudinally (Kline, 2010). Analyses were conducted in Mplus version 7.0 (Muthén & Muthén, 2012).

For all primary aims and hypotheses, path models in Mplus were conducted using full information maximum likelihood estimation (FIMLE), which does not exclude observations with missing data and uses all available data to estimate parameters (Kline, 2010). In addition, robust maximum likelihood estimation was used due to study variables being non-normally distributed (i.e., dating violence), as this estimate employs
maximum likelihood parameter estimates with standard errors and a chi-square statistic that are all robust to issues of non-normality (Kline, 2010).

For models with zero degrees of freedom (i.e., a fully saturated model), model fit indices were unavailable due to these models always producing a perfect fit to the data (Kline, 2010). For models with degrees of freedom, model fit was evaluated using the chi-square statistic ($\chi^2$), the root mean squared error of approximation (RMSEA), and the comparative fit index (CFI). The chi-square fit index establishes the discrepancy between the sample and the fitted covariance matrices. The chi-square fit index is calculated by dividing the chi-square estimate by the degrees of freedom, with values of less than 2.0 indicative of good fit. The RMSEA is an indicator of model error per degrees of freedom, with values less than .08 indicating that the model fit the data well. The CFI contrasts the estimated model’s fit to that of the null, or “independence” model, with a value of .95 or higher indicative of good fit. This set of fit indices was chosen to examine model fit because they are the most sensitive to models with mis-specified factor covariances and loadings (Hu & Bentler, 1999).

To test the significance of mediated paths (i.e., childhood abuse to dating violence perpetration, mediated by emotion regulation), the bias-corrected bootstrap method was employed. As detailed by MacKinnon, Lockwood, and Williams (2004), the bias-corrected bootstrap method provides a more optimal balance between Type I and Type II error when compared to other methods for testing the significance of mediated paths. Specifically, 500 bootstrap samples and 95% bias-corrected confidence intervals (CIs) will be used.
Consistent with the recommendations of Aiken and West (1991) for examining moderation, for the moderated-mediation models, predictor variables (i.e., childhood abuse), moderators (i.e., alcohol use/adult victimization), and the mediator (i.e., emotion regulation) were mean centered to aid in the interpretation of moderated effects and to reduce multicollinearity among variables. Interactions between the moderators and the mediator were added to the models to predict the dependent variables.
Results

Descriptive Statistics

A total of 300 women between the ages of 18-25 completed both time points, resulting in a compliance rate of 62.8%. Means, standard deviations, and bivariate correlations among study variables are presented in Table 1. All significant correlations were in the positive direction. Childhood emotional abuse was associated with emotion regulation difficulties, adult victimization at both assessments, psychological perpetration at both assessments, and physical perpetration at the second assessment. Childhood physical abuse was associated with emotion regulation difficulties and psychological perpetration at the second assessment. Emotion regulation difficulties were associated with adult victimization at both assessments, and psychological perpetration at both assessments. Alcohol use was associated with adult victimization at both assessments, and psychological perpetration at both assessments. Adult victimization at the first assessment was associated with adult victimization at the second assessment, with psychological perpetration at both assessments, and with physical perpetration at the second assessment. Psychological perpetration at the first assessment was associated with psychological perpetration at the second assessment and physical perpetration at the first assessment.

Analyses of group differences between participants who did ($n = 300$) and did not ($n = 178$) complete the second assessment are reported in Table 2. Significant group differences emerged in regards to emotion regulation difficulties and childhood physical abuse. Specifically, emotion regulation difficulties were higher among women who did
not complete follow up and childhood physical abuse was higher among women who did not complete follow up. Significant differences also emerged in regards to race, such that women who did not complete the follow-up were more likely to be non-White.

Rates of dating violence perpetration, victimization, and childhood abuse among study participants were similar to those of past research on college women (Edwards et al., 2009; Shorey, Cornelius & Bell, 2008). In regards to childhood abuse, 44.1% (n=231) of participants reported experiencing some form of emotional abuse in childhood, 29% (n= 144) reported experiencing some form of physical abuse in childhood, and 9% (n=44) reported experiencing sexual abuse in childhood. In regards to perpetration, 23% (n= 126) reported perpetrating physical aggression at time one, 13.9% (n= 43) of participants reported perpetrating physical aggression during the three-month interim between assessments, 75.4% (n= 368) reported perpetrating psychological aggression at the first assessment, and 60% (n=185) reported perpetrating psychological aggression during the three-month interim between assessments. In regards to adult victimization, 83.5% (n=339) of participants the participants who completed all questions on the MMEA and CTS2 subscales (n=406) reported experiencing some form of dating violence victimization at the first assessment

**Hypothesis 1**

The first model examined was the cross-sectional mediational hypothesis of emotion regulation mediating the relationship between childhood abuse and dating violence perpetration (Figure 4). As described above, this model was fully saturated. Results demonstrated that in the presence of the other predictors included in the model,
childhood emotional abuse was positively and significantly associated with emotion regulation difficulties, and emotion regulation difficulties were positively and significantly associated with psychological aggression (see Table 6). Examination of the indirect effects of childhood emotional abuse on psychological aggression perpetration demonstrated that emotion regulation difficulties fully mediated the pathway from childhood emotional abuse to psychological aggression perpetration, $B = 0.38$, $95\%$CI $[0.14, 0.69]$. No other associations or mediated paths were significant.

The second model examined the mediational hypothesis longitudinally and included perpetration at the first assessment as a control and perpetration at the second assessment as the dependent variable. The chi-square fit index exceeded a value of 2.0, the comparative fit index (CFI) did not reach .95, and RMSEA exceeded the value of .08, indicative of poor model fit. Because model fit was poor, this model was not interpreted (see Table 3).

**Hypothesis 2**

Next, alcohol was examined as a moderator of the relationship between childhood abuse and dating violence perpetration, mediated by emotion regulation. Thus, alcohol was examined as a moderator of the mediated pathway in model 1 (i.e., moderated-mediation). As with hypothesis 1, two models were examined: one for cross-sectional and one for longitudinal analyses.

The cross-sectional model (Model 3a) was fully saturated. Results demonstrated that in the presence of the other predictors included in the model, childhood emotional abuse was positively and significantly associated with emotion regulation difficulties, and
emotion regulation difficulties were positively and significantly associated with psychological aggression (see Table 5). Additionally, indirect effects of childhood emotional abuse on psychological aggression perpetration demonstrated that emotion regulation fully mediated this pathway, $B = .36$, 95% CI [.14, .65]. No other associations, mediated paths, or mediated moderation analyses yielded significant results.

The second model (Model 4a) examined the longitudinal moderated-mediation hypothesis and included perpetration at the first assessment as a control and perpetration at the second assessment as the dependent variable. The chi-square fit index exceeded a value of 2.0, the RMSEA was .08, and the CFI was below .95, indicative of poor model fit. However, because the RMSEA value was acceptable, results of this model will be interpreted cautiously (see Table 3). Results of model 4a indicated that childhood emotional abuse was positively and significantly associated with emotion regulation difficulties, and that psychological perpetration at the first assessment was positively and significantly associated with psychological perpetration at the second assessment (See Table 6). No other associations, mediated paths, or moderated mediated paths were significant.

**Hypothesis 3**

Next, prior adult victimization was examined as a moderator of the relationship between childhood abuse and dating violence perpetration, mediated by emotion regulation. Thus, victimization was examined as a moderator of this mediated pathway (i.e., moderated-mediation). As with hypothesis 1 and 2, two models were conducted: one for cross-sectional and one for longitudinal analyses.
The cross-sectional model (Model 3b, see Figure 6) was fully saturated. Results demonstrated that in the presence of other predictors in the model, childhood emotional abuse was positively and significantly associated with emotion regulation difficulties, and adult victimization was positively and significantly associated with both psychological and physical perpetration. Indirect effects of childhood emotional abuse on psychological aggression perpetration demonstrated that emotion regulation fully mediated this pathway, $B = .11$, 95% CI $[.02, .31]$. Analyses yielded no other significant mediation or moderated-meditation results.

The longitudinal model (Model 4b) examined the moderated-mediation hypothesis and included perpetration at the first assessment as a control and perpetration at the second assessment as the dependent variable. The chi-square fit index exceeded a value of 2.0, the RMSEA exceeded the value of .08, and the CFI was below .95, demonstrating poor model fit. Due to poor fit, Model 4b was not interpreted (see Table 3).
Discussion

The present thesis sought to investigate a moderated-mediational model, by examining the associations between childhood abuse and dating violence perpetration, mediated by emotion regulation, with alcohol use and adult victimization moderating this mediated path. The study also aimed to evaluate both cross-sectional and longitudinal models to determine whether cross-sectional results were applicable to longitudinal data. The researcher hypothesized that (1) emotion regulation would mediate the relationship between childhood abuse (physical, sexual, and emotional) and dating violence perpetration (physical and psychological) cross-sectionally and longitudinally, (2) that alcohol use would moderate the mediating relationship of emotion regulation between childhood abuse and dating violence perpetration both cross-sectionally and longitudinally, and (3) that adult dating violence victimization (physical, psychological, and sexual) would moderate the mediating relationship of emotion regulation between childhood abuse and dating violence perpetration both cross-sectionally and longitudinally.

Results provided only minimal support for study hypotheses. The proposed associations for hypothesis 1 were supported for only one type of childhood abuse and one type of dating violence. Specifically, the cross-sectional model indicated that emotion regulation mediated the pathway from the childhood emotional abuse to psychological aggression perpetration. However, this pathway was not significant for other forms of childhood abuse or physical dating violence perpetration, and was not supported longitudinally. The finding that emotion regulation mediated the relationship
of childhood abuse and psychological dating violence perpetration was consistent with findings of past cross sectional research (Berzenski & Yates, 2009). These results also provide additional support for the role of emotion regulation in women’s DV perpetration, as researchers have contested whether emotion regulation is associated with DV among women (Gratz & Roemer, 2004; Gratz et al., 2009). Results of the present study support that it is indeed important in women’s perpetration of psychological aggression, and further research should extend and continue investigating these associations.

However, it is of note that the only significant mediated path was between emotional childhood abuse and psychological dating violence perpetration. It is possible that emotional abuse is particularly salient in producing difficulties in emotion regulation later in life, as past research has found that emotional abuse is more strongly related to problems with emotion regulatory functions later in life than other forms of abuse (Burns, Jackson, & Harding, 2010; Kuo, Khoury, Metcalfe, Fitzpatrick, & Goodwill, 2015). This finding is important, since studies have historically excluded emotional maltreatment from research on childhood abuse. Emotional abuse may be a core component in the development of emotion regulation difficulties due to the invalidating environment emotional abuse fosters, such that children’s emotional needs and expression are not sufficiently validated or appropriately modeled by caregivers (Linehan, 1993). This may increase emotion regulation difficulties due to the encouragement of maladaptive emotional regulatory functions, such as suppressing negative emotions, and may lead children to question the validity of their emotions, or label emotional experiences as
socially unacceptable. These processes diminish children’s abilities to learn adaptive emotion regulation strategies, and may thus foster emotion regulation difficulties (Burns et al., 2010). It is also possible that emotion regulation may be one of many potential mediators of the relationship between childhood abuse and dating violence perpetration. Possible mediators for future study include known variables associated with vulnerability to deleterious outcomes of childhood abuse such as inhibitory control and emotional reactivity (McLaughlin et al., 2016), which may be related to emotion regulation and further influence aggressive responding. Additionally, beliefs about violence and perceptions of aggression as a successful conflict resolution tactic may be an important variable for future studies, as some studies have found that beliefs about violence have mediated the relationship of exposure to aggressive stimuli and responding with aggression among children (Musher-Eizenman et al., 2004). Thus, these variables may represent important additional mediators of the association between childhood abuse and DV perpetration among women.

Notably, the significant cross-sectional mediation finding was not replicated longitudinally. This finding is important, as no previous studies have examined this mediated path using longitudinal data. The field’s over-reliance on cross-sectional data has been a long-term critique of researchers (e.g. Shorey et al., 2008; Shorey et al., 2011). The importance and applicability of these associations for dating violence intervention and prevention programs is unclear if the associations do not predict violence across time. Thus, the lack of generalizability of cross-sectional models to longitudinal models bolsters support for the continued need of longitudinal research on dating violence, and
raises important questions about the potential clinical utility of past cross-sectional research.

Hypothesis 2 postulated that alcohol use would moderate the mediating relationship of emotion regulation between childhood abuse and dating violence perpetration. This hypothesis was not supported, as no moderated mediation paths emerged cross-sectionally or longitudinally. One possible explanation for this lack of significant results is that the measurement methodology utilized lacked the precision necessary to capture the effects of acute alcohol use on emotion regulation. Although several previous studies have measured alcohol use as a distal pattern and found strong associations with DV perpetration (e.g., Baker & Stith, 2008; DuRant et al., 2007; Foran & O’Leary, 2008), recent research has begun to measure alcohol and dating violence on a temporally proximate level (e.g., Moore, Elkins, McNulty, Kivisto, & Handsel, 2011; Shorey et al., 2014). Daily measurement of acute alcohol intoxication may have improved the accuracy of the model. This measurement strategy enables a more nuanced analysis of the interaction of alcohol use and other variables (e.g., angry affect; Shorey et al., 2014) in predicting dating violence. However, no studies to date have examined the association of alcohol use as a moderator of emotion regulation and dating violence on a daily level, and future research is needed to determine these associations.

Similarly, although emotion regulation has historically been measured as a trait like behavioral repertoire (Gratz & Roemer, 2004; Gross, 1998), recent research suggests that emotion regulation abilities are impacted by various conditions and contexts, such as alcohol use (Weiss, Bold, Sullivan, Armeli, & Tennen, 2016). Researchers have begun to
assess emotion regulation on a daily basis in order to determine proximal effects of variables such as alcohol use on emotion regulation (e.g. Weiss et al., 2016). Thus, it is also likely that the level of emotion regulation difficulty on one’s behavior fluctuates daily and in response to other variables (e.g. Silk; Steinberg, & Sheffield Morris, 2003; Tan et al., 2011; Weiss et al., 2016), such as a disinhibiting factor like alcohol use. In the present study, alcohol use may have impacted the mediated path of emotion regulation difficulties on a temporally proximate level, such that days with higher alcohol use would strengthen the mediating role of emotion regulation difficulties. Thus, future research using designs that allow for the examination of temporal associations among study variables, such as daily diary studies, is needed.

Lastly, hypothesis 3 stated that adult dating violence victimization (physical, psychological, and sexual) would moderate the mediating relationship of emotion regulation between childhood abuse and dating violence perpetration. Hypothesis 3 was not supported, as analyses yielded no significant mediation or moderated-mediation results cross-sectionally or longitudinally. Hypothesis 3 may have yielded non-significant results for similar reasons for those of hypothesis 2, such that the mediating role of emotion regulation may have been more impacted by adult victimization experiences on a temporally proximate level. Thus, similarly to alcohol use, it is possible that victimization experiences moderate emotion regulation difficulties on a temporally proximate level. However, these associations have not yet been researched, and future research is needed to determine these associations.
Thus, results of the data overall did not support the proposed models of the association between study variables. One additional possibility for these findings would be that the proposed models do not truly capture the complex relationship between childhood abuse experiences, emotion regulation difficulties, adult dating violence victimization, alcohol use, and dating violence perpetration among college women. The poor model fit evidenced by all longitudinal models may support this possibility. However, based on past literature and study correlations, it seems probable that associations do exist among study variables. However, it may be that these associations do not follow the pathways examined in the current study. Continued research and theoretical development on the associations among study variables is needed.

Implications

Despite the lack of significant findings, the present thesis contributed to the current body of literature on dating violence among college women. Most notably, the study replicated and expanded upon prior research of the mediating role of emotion regulation difficulties between childhood emotional abuse and female perpetrated psychological dating violence cross-sectionally. Thus, future research should continue to examine the role of emotion regulation difficulties in female perpetrated dating violence. Additionally, the finding that these results were not replicated using longitudinal data may have important implications for interpreting current research on dating violence. This may indicate a mismatch between cross-sectional and longitudinal results, and indicate that some cross-sectional relationships (e.g., emotion regulation as a mediator of childhood abuse and psychological dating violence perpetration) may not exist.
longitudinally. This may have important implications for the dating violence literature, which is largely composed of cross-sectional research. A lack of continuity of results indicates that the temporal precedence conceptualized in past research (i.e., emotion regulation difficulties at baseline precede subsequent dating violence perpetration) may not be accurate. Since temporal precedence is necessary for causal relationships, a lack of longitudinal continuity may indicate that associations between variables are not causal, and thus may not have utility for intervention or prevention efforts. Results of this study provide support for the rationale to expand dating violence research to include longitudinal designs to determine predictors of violence over time, which will enable researchers to determine possible causal relationships between predictors and dating violence over time. Further use of longitudinal study designs could have important implications for dating violence prevention and intervention program development.

In regards to clinical implications, results of the present study are too premature to draw clinical implications from at this time. Future research is needed to determine the associations between study variables that may have utility for intervention and prevention programming development. Although there is a large body of research supporting high rates of dating violence on college campuses (e.g. Dardis, Dixon, Edwards, & Turchik, 2015; Shorey et al., 2008), there are few programs designed to reduce dating violence on college campuses, and little evidence that previous prevention efforts are effective in reducing dating violence (see Shorey et al., 2012b, for a review). Additionally, to date, no known research on dating violence prevention programming specific to female-perpetrated dating violence exists (Shorey, Strauss, Haynes, Cornelius, & Stuart, 2016).
Due to the large percentage of college students effected by dating violence and the negative consequences associated with dating violence, research in this area is critical. Although the present study does not lend any direct implications for programming, future study is needed to determine specific vulnerabilities and correlates of dating violence among college women to determine important targets for intervention.

**Limitations**

The present thesis included several limitations that could be improved upon in future research. The measurement methodology of study variables in the present thesis may have hindered the ability to accurately capture the complex proximal phenomena they were intended to measure. Although the use of longitudinal data was a strength of the study, one limitation was a lack of proximal measurement of variables that may fluctuate and relate to one another on a temporal level that was not captured by the 3-month follow-up assessment. Although the measurement of emotion regulation, alcohol use, and dating violence victimization were consistent with the vast majority of prior dating violence studies (e.g., Baker & Stith, 2008; Berzenski & Yates, 2009; Shorey, Brasfield, Febres, & Stuart, 2011), this approach does not allow for the examination of how these constructs may fluctuate over time, or across situations, which may impact their associations with dating violence and other study constructs. Although alcohol use was conceptualized as a disinhibition variable in the I^3 model based on past research supporting the role of alcohol intoxication on aggression (Bushman, Giancola, Parrott, & Roth, 2012; Eckhardt, Parrott, & Sprunger, 2015), the present study could not directly distinguish alcohol use as a disinhibiting factor or an impellence factor, as acute
intoxication at the time of DV was not assessed in the study. Measurement of alcohol use on a daily level would have been necessary to disentangle the role of alcohol use. Moreover, the study only included one member of dating dyads, and thus findings were based on single reporters. Future research should include both members of dating dyads.

An additional limitation of the present study was related to the measurement of childhood abuse. Although the CTQ-SF assesses some information about the severity of childhood abuse within each domain by measuring the frequency and number of childhood abuse experiences, and is commonly used in previous literature (e.g., Fiorillo, Papa, & Follette, 2013; Maldonado, Watkins, & DiLillo, 2015), the measure does not assess the time periods over which childhood abuse occurred and does not refer to a specific time frame in childhood (i.e., the measure asks about experiences “while growing up”). Consequently, this measurement may not capture the chronicity of childhood abuse across several years. There is a burgeoning body of research suggesting that childhood abuse posits a hierarchical impact on development of problematic functioning (Finkelhor, Omrad, & Turner, 2007; McLaughlin, 2016; Sroufe, 2009). Recent research also suggests that there are likely sensitive periods that influence developmental impact of childhood abuse experiences (McLaughlin, 2016). Thus, future research should expand upon this limitation by assessing these domains of childhood abuse.

Additionally, the present study sample may pose limitations for generalizability of research. The sample was comprised of a heterogeneous, mostly white, heterosexual, college women, and results of the study may not generalize to diverse groups, non-
heterosexual relationships, or populations beyond college students. Future research is needed to evaluate these associations in other populations. Moreover, the differences in characteristics of participants who dropped out of the study and participants who did not drop out of the study represents a limitation. Participants who dropped out reported more emotion dysregulation and childhood physical abuse than participants who did not drop out, and this may have contributed to a restricted range for these variables in longitudinal analyses. Additionally, six participants included in analyses failed to answer one of the two integrity check questions embedded into the questionnaires, indicating some respondents may have been less attentive to study questions and may not have answered with complete accuracy. Lastly, the short 3-month follow-up period represents an additional limitation to the study. Future longitudinal research should expand upon this limitation by including a long-term assessment period (i.e., up to a year) to determine whether predictions vary over time.

Conclusion

In conclusion, results of the study only partially supported study hypotheses. In regards to hypothesis 1 that emotion regulation would mediate the relationship between childhood abuse and dating violence perpetration, the cross-sectional model was partially supported, such that emotion regulation mediated the relationship between emotional childhood abuse and psychological dating violence perpetration. The longitudinal model in hypothesis 1 was not supported. In regards to Hypothesis 2, that alcohol use would moderate the mediated path in hypothesis one, no moderated mediated paths emerged, and the hypothesis was not supported cross-sectionally or longitudinally. Lastly,
hypothesis 3, that adult victimization would moderate the mediated pathway in hypothesis 1, was not supported cross-sectionally or longitudinally. Future study is needed to expand upon possible measurement limitations of the present study to determine the association between study variables over time. Additionally, future research should continue to evaluate the longitudinal generalization of cross-sectional results to determine the consistency of these associations over time.
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Table 1.  
Correlations, means, and standard deviations among study variables.

<table>
<thead>
<tr>
<th>Variable</th>
<th>1</th>
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<td>1. Childhood emotional abuse</td>
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<td>.29**</td>
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M  
2.61 1.23 .64 81.07 5.97 51.88 50.43 40.92 1.87 1.41
SD  
4.00 2.67 2.65 23.52 5.12 31.99 29.50 32.34 5.75 7.21

Note: *p < .05, **p < .01
Table 2. 
*Differences among attrition groups on study variables.*

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<th>df</th>
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<th>χ²</th>
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<td>8.5%</td>
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<td>Cohabitation</td>
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<td>Long distance couple</td>
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<td>Not long distance couple</td>
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<td>47.4%</td>
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*Note: *p < .05, **p < .01
Table 3. 
*Model fit indices for longitudinal models.*

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<th>RMSEA</th>
<th>Comparative Fit Index</th>
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<td>Model 4b</td>
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*Note:* ***p< .001
Table 4.
Standardized path coefficients for Model 1 (cross-sectional mediational model of emotion regulation mediating the relationship between childhood abuse and dating violence perpetration).

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<th>Dependent Variables</th>
<th>β</th>
<th>S.E.</th>
<th>p</th>
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<td>Emotion regulation</td>
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<td>.45</td>
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<td></td>
<td>Psychological dating violence perpetration</td>
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<td>Physical dating violence perpetration</td>
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<td>.06</td>
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<td>Childhood physical abuse</td>
<td>Emotion regulation</td>
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<td>.04</td>
<td>.12</td>
<td>.50</td>
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<td>Childhood sexual abuse</td>
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Table 5. 
**Standardized path coefficients for Model 3a (alcohol as moderator of the mediating relationship of emotion regulation between childhood abuse and dating violence perpetration).**

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<th>Dependent Variable</th>
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<th>S.E.</th>
<th>p</th>
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<td>.60</td>
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Table 6.  
*Standardized path coefficients for Model 4a (longitudinal moderated-mediation model of with alcohol as a moderator of the mediated relationship of emotion regulation between childhood abuse and dating violence perpetration).*

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Table 7. 
Standardized path coefficients for Model 3b (cross-sectional model of adult victimization as a moderator of the mediated pathway of emotion regulation between childhood abuse and dating violence perpetration).

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<tr>
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Figure 1. Bell & Naugle’s proposed theoretical framework for IPV with predictors of interest in red (Adapted from Bell & Naugle, 2008.)
Figure 2. Proposed model with cross-section data.
Figure 3. Proposed model with longitudinal data.
Figure 4. Model 1 with significant associations highlighted in red.
Figure 5. Model 3a with significant associations highlighted in red.
Figure 6. Model 3b with significant associations highlighted in red.
Appendix A. Informed Consent

Time 1

Invitation to Participate and Description of Project

You are being asked to participate in research. You are invited to participate in an online study designed to gather information about a wide range of thoughts, feelings, and behaviors among college students in dating relationships. You have been invited to participate because you are at least 18 years old, are currently involved in a dating relationship, and are a student at Ohio University. Your participation in the study will last approximately 60 minutes today and will require you to complete confidential questionnaires. You will receive 1 credit of research participation for this study.

For you to be able to decide whether you want to participate in this project, you should understand what the project is about, as well as the possible risks and benefits in order to make an informed decision. This process is known as informed consent. This form describes the purpose, procedures, possible benefits, and risks. It also explains how your personal information will be used and protected. This will allow your participation in this study. If you wish to have a copy of this consent document to take with you, you should print it.

Explanation of Study
This is the first session of a two-part study. The purpose of this study is to better understand the behavioral and emotional experiences of men and women who are in current dating relationships.

If you agree to participate in this study, you will be asked to complete online questionnaires regarding your thoughts, feelings, and behaviors in relation to a number of areas, such as how you and your dating partner handle conflict. Some of these questions will ask about experiences that may have been upsetting, unwanted, or negative that occurred recently or during your childhood. Many of the questions about recent and childhood experiences are very explicit. You should not participate in this study if you feel that you may not be comfortable answering questions about personal and sexual information. Following these surveys, you will be provided debriefing information regarding the study and referral sources. Please complete all surveys when you are alone and when no one will be able to view your responses.

Your participation in the study will last approximately one hour today and will result in 1 research credit.

**Risks and Discomforts**

Risks or discomforts that you might experience are emotional discomfort or distress. You may skip any questions that you do not want to answer, you may stop participating at any time, and you may withdraw from the research at any time.

In addition, if you are concerned about the study materials used or questions asked and wish to speak with a professional, or if you would like more information or
reading material on this topic (i.e., emotional distress, relationship problems, substance use), please contact one of the following resources:

**Ohio University Counseling and Psychological Services:** 740-593-1616

Hudson Health Center, 3rd Floor
2 Health Center Drive
Athens, Ohio 45701

**OU Survivor Advocate** 740-597-7233

Office in McKee House 44 University Terrace

**Hours:** Mon-Fri 9 a.m. - 5 p.m.
On-Call after 5 p.m. & Weekends

**E-mail:** survivor.advocacy@ohio.edu

**OU Counselor-in-Residence:** 740-593-0769

[http://www.ohio.edu/counseling/Counselor-in-Residence.cfm](http://www.ohio.edu/counseling/Counselor-in-Residence.cfm)

Walk-ins Mondays and Wednesdays 6-9pm in Jefferson Hall, Room 122

**OU Psychology and Social Work Clinic**

**Hours:** Mon/Tues: 9:00 a.m. – 7:00 p.m.; Wed/Thurs: 9 a.m. - 5 p.m.; Fri: 9-2

Closed during the noon-1:00pm hour Monday-Friday

**Phone:** 740-593-0902

002 Porter Hall
Ohio University
Athens, OH 45701

**Benefits**
Individually, you may benefit from participation in this study by having the opportunity to learn about the data collection and research process. You may also gain insight into your relationship and personal experiences through your participation. Furthermore, information obtained from participation in this study will help mental and physical health professionals to provide help and support to students with upsetting dating experiences.

**Confidentiality and Records**

To ensure that the information you provide us remains confidential, the data you provide will be completely anonymous. You will not be personally identified in any reports or publications that may result from this study. None of the information you provide us will be shared with anyone, including university officials, parents, police, or your relationship partner.

The possible loss of confidentiality for participating in this study is minimal. This means that none of the information you might share regarding sensitive aspects of your relationships will be shared with anyone, including university officials, parents, police, or your relationship partner. Ohio law does not require reporting of prior exposure to alcohol or drugs or to sexual assault and/or physical assault of an adult partner. An adult partner refers to someone who is 18 years of age or older. Also, your responses to all study questions will be anonymous and thus none of these individuals could know what your responses were.

Additionally, there may be circumstances where some of the information you provide must be shared with:
* Federal agencies, for example the Office of Human Research Protections, whose responsibility is to protect human subjects in research;

* Representatives of Ohio University (OU), including the Institutional Review Board, a committee that oversees the research at OU.

All survey responses that we receive will be treated confidentially and stored on a secure server. However, given that the surveys can be completed from any computer (e.g., personal, work, school), we are unable to guarantee the security of the computer on which you choose to enter your responses. Please clear the browser history and close the browser if you are working on a publicly accessible computer.

**Compensation**

As compensation for your time/effort, you will receive 1 course credit for your participation in this session, for a total of 1.5 course credits if you participate in both sessions of this 2-part study (the second survey, 3-months from now, is for research 0.5 credits).

**Contact Information**

If you have any questions regarding this study, please contact:

Catherine Strauss Shorey.Lab@gmail.com

Ryan C. Shorey, PhD. Shorey@Ohio.Edu 740-597-3298

If you have any questions regarding your rights as a research participant, please contact Jo Ellen Sherow, Director of Research Compliance, Ohio University, (740) 593-0664.

By agreeing to participate in this study, you are agreeing that:
* you have read this consent form (or it has been read to you) and have been given the opportunity to ask questions and have them answered

* you have been informed of potential risks and they have been explained to your satisfaction.

* you understand Ohio University has no funds set aside for any injuries you might receive as a result of participating in this study

* you are 18 years of age or older

* your participation in this research is completely voluntary

* you may leave the study at any time. If you decide to stop participating in the study, there will be no penalty to you and you will not lose any benefits to which you are otherwise entitled.

**Time 2**

**Invitation to Participate and Description of Project**

You are being asked to participate in research. You are invited to participate because you participated in the first part of this study approximately 3 months ago. Your participation in the study will last approximately 30 minutes today and will require you to complete confidential questionnaires. You will receive 0.5 credits of research participation for this study.

For you to be able to decide whether you want to participate in this project, you should understand what the project is about, as well as the possible risks and benefits in order to make an informed decision. This process is known as informed consent. This form describes the purpose, procedures, possible benefits, and risks. It also explains how your
personal information will be used and protected. This will allow your participation in this study. If you wish to have a copy of this consent document to take with you, you should print it.

**Explanation of Study**

This is the second session of a two-part study. The purpose of this study is to better understand the behavioral and emotional experiences of men and women who are in current dating relationships.

If you agree to participate in this study, you will be asked to complete online questionnaires regarding your thoughts, feelings, and behaviors in relation to a number of areas, such as how you and your dating partner handle conflict. Some of these questions will ask about experiences that may have been upsetting, unwanted, or negative that occurred recently or during your childhood. Many of the questions about recent and childhood experiences are very explicit. **You should not participate in this study if you feel that you may not be comfortable answering questions about personal and sexual information.** Following these surveys, you will be provided debriefing information regarding the study and referral sources. Please complete all surveys when you are alone and when no one will be able to view your responses.

Your participation in the study will last approximately 30 minutes today and will result in 0.5 research credits.

**Risks and Discomforts**
Risks or discomforts that you might experience are emotional discomfort or distress. You may skip any questions that you do not want to answer, you may stop participating at any time, and you may withdraw from the research at any time.
In addition, if you are concerned about the study materials used or questions asked and wish to speak with a professional, or if you would like more information or reading material on this topic (i.e., emotional distress, relationship problems, substance use), please contact one of the following resources:

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**Hours:** Mon/Tues: 9:00 a.m. – 7:00 p.m.; Wed/Thurs: 9 a.m. - 5 p.m.; Fri: 9-2
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**Phone:** 740-593-0902

002 Porter Hall
Ohio University
Athens, OH 45701

**Benefits**

Individually, you may benefit from participation in this study by having the opportunity to learn about the data collection and research process. You may also gain insight into your relationship and personal experiences through your participation. Furthermore, information obtained from participation in this study will help mental and physical health professionals to provide help and support to students with upsetting dating experiences.

**Confidentiality and Records**

To ensure that the information you provide us remains confidential, the data you provide will be completely anonymous. You will not be personally identified in any reports or publications that may result from this study. None of the information you provide us will be shared with anyone, including university officials, parents, police, or your relationship partner.

The possible loss of confidentiality for participating in this study is minimal. This means that none of the information you might share regarding sensitive aspects of your relationships will be shared with anyone, including university officials, parents, police, or your relationship partner. Ohio law does not require reporting of prior exposure to alcohol or drugs or to sexual assault and/or physical assault of an adult partner. An adult
partner refers to someone who is 18 years of age or older. Also, your responses to all study questions will be anonymous and thus none of these individuals could know what your responses were. Additionally, there may be circumstances where some of the information you provide must be shared with:

* Federal agencies, for example the Office of Human Research Protections, whose responsibility is to protect human subjects in research;

* Representatives of Ohio University (OU), including the Institutional Review Board, a committee that oversees the research at OU.

All survey responses that we receive will be treated confidentially and stored on a secure server. However, given that the surveys can be completed from any computer (e.g., personal, work, school), we are unable to guarantee the security of the computer on which you choose to enter your responses. Please clear the browser history and close the browser if you are working on a publically accessible computer.

**Compensation**

As compensation for your time/effort, you will receive 0.5 course credits for your participation in this session.

**Contact Information**

If you have any questions regarding this study, please contact:

**Catherine Strauss**
Shorey.Lab@gmail.com

**Ryan C. Shorey, PhD.**
Shorey@Ohio.Edu  740-597-3298
If you have any questions regarding your rights as a research participant, please contact Jo Ellen Sherow, Director of Research Compliance, Ohio University, (740) 593-0664.

By agreeing to participate in this study, you are agreeing that:

- you have read this consent form (or it has been read to you) and have been given the opportunity to ask questions and have them answered.
- you have been informed of potential risks and they have been explained to your satisfaction.
- you understand Ohio University has no funds set aside for any injuries you might receive as a result of participating in this study.
- you are 18 years of age or older.
- your participation in this research is completely voluntary.
- you may leave the study at any time. If you decide to stop participating in the study, there will be no penalty to you and you will not lose any benefits to which you are otherwise entitled.
Appendix B. Debriefing Form

Thank you for your participation in this research project. This study was designed to examine behaviors, feelings, and experiences of college students who are in a dating relationship. To accomplish this goal, you were asked questions about personal life events, including psychological, physical, and sexual experiences and related information that may pertain to you.

The information provided by these questionnaires will help psychology researchers and clinicians learn more about college student’s dating experiences, including those experiences that were unwanted or problematic. This information will also help psychologists to research important dating issues in the future. The results of studies such as this one will help to inform the development of intervention and prevention programming related to increasing healthy dating relationship.

As a reminder, all of your questionnaire responses will remain anonymous. If you have any further questions regarding the nature of this study, or would like to request details of the results, please feel free to contact the principal investigator:

Ryan C. Shorey, PhD.
Porter Hall (740-597-3298)
Shorey@Ohio.Edu

In addition, if you are concerned about the study materials used or questions asked and wish to speak to a professional, or if you would like more information or reading material on this topic, please contact one of the following resources:

Ohio University Counseling and Psychological Services: (740) 593-1616
Ohio University Psychology and Social Work Clinic 593-0902
My Sister’s Place Battered Women’s Shelter 593-3402
Sexual Assault Survivor Advocacy Program 589-5562
OU Counselor-in-Residence 593-0769

All survey responses that we receive will be treated confidentially and stored on a secure server. However, given that the surveys can be completed from any computer (e.g., personal, work, school), we are unable to guarantee the security of the computer on which you choose to enter your responses. Please clear the browser history and close the browser if you are working on a publically accessible computer.

Thank you again for your participation!
Appendix C. Demographics

Please choose the best response for the following questions:

1. What is your gender?
   a. Male
   b. Female

2. What is your age?
   A. 18  D. 21  G. 24
   B. 19  E. 22  H. 25
   C. 20  F. 23  I. Other (Please Write in) _________________

3. What is your current year in school?
   A. Freshman  D. Senior
   B. Sophomore  E. Graduate
   C. Junior  F. Other

4. What is your racial identity?
   A. American Indian or Alaska Native  E. White/Caucasian
   B. Asian  F. Multiracial
   C. Black or African American  G. Middle Eastern
   D. Native Hawaiian or Other Pacific Islander  H. Other (Please Write in) ____________

5. What is your ethnicity?
   A. Hispanic or Latino
   B. Not Hispanic or Latino
6. What is your religious background?
   A. Catholic (Christian)  E. None/Atheist
   B. Protestant (Christian)  F. Muslim
   C. Jewish  G. Other
   D. Nondenominational

7. What is your sexual orientation?
   A. Heterosexual
   B. Gay
   C. Lesbian
   D. Bisexual
   E. Questioning

8. Approximately what is your parents’ combined yearly income?
   A. Unemployed or disabled  F. $41,000-50,000  K. I don’t know
   B. Under $10,000  G. $51,000-75,000
   C. $10,000-20,000  H. $76,000-100,000
   D. $21,000-30,000  I. $101,000-200,000
   E. $31,000-40,000  J. Over $200,000

9. What best describes your current intimate relationship status?
   A. Dating
B. Engaged
C. Married
D. Single

9a. If you are not currently involved in an intimate relationship, were you involved in an intimate relationship at any time during the past 12 months?

Yes
No

10. If you are currently involved in an intimate relationship, how long have you been with your current partner? (write-in) _____ years _____ months

11. Do you currently live with your partner?

A. Yes
B. No

12. On average, how many times a week do you see your partner (face-to-face contact)?

A. At least once a day
B. 4-5 times a week
C. 2-3 times a week
D. Once a week or less
13. On average, how much time do you spend with your partner each day?
   _____ hours _____ minutes

14. Does your partner live within a 10-15 minute drive from you?
   A. Yes
   B. No

15. Do you consider yourself to be in a long-distance relationship?
   A. Yes
   B. No
Appendix D. Childhood Trauma Questionnaire

NOTE: The Childhood Trauma Questionnaire was not included due to copyright.
## Appendix E. Difficulties in Emotion Regulation Questionnaire

**Instructions:** Please indicate, using the scale below, how often each item applies to you.

1 = almost never  2 = sometimes  3 = about half the time  4 = most of the time  5 = almost always

<table>
<thead>
<tr>
<th>Item</th>
<th>Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I am clear about my feelings</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>2. I pay attention to how I feel</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>3. I experience my feelings as overwhelming and out of control</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>4. I have no idea how I am feeling</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>5. I have difficulty making sense out of my feelings</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>6. I am attentive to my feelings</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>7. I know exactly how I am feeling</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>8. I care about what I am feeling</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>9. I am confused about how I feel</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>10. When I’m upset, I acknowledge my emotions</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>11. When I’m upset, I become angry with myself for feeling that way</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>12. When I’m upset, I become embarrassed for feeling that way</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>13. When I’m upset, I have difficulty getting work done</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>14. When I’m upset, I become out of control</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>15. When I’m upset, I believe that I will remain that way for a long time</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>16. When I’m upset, I believe that I’ll end up feeling very depressed</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>17. When I’m upset, I believe that my feelings are valid and important</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>18. When I’m upset, I have difficulty focusing on other things</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>19. When I’m upset, I feel out of control</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
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</tr>
<tr>
<td>20. When I’m upset, I can still get things done</td>
<td>1</td>
</tr>
<tr>
<td>21. When I’m upset, I feel ashamed with myself for feeling that way</td>
<td>1</td>
</tr>
<tr>
<td>22. When I’m upset, I know that I can find a way to eventually feel better</td>
<td>1</td>
</tr>
<tr>
<td>23. When I’m upset, I feel like I am weak</td>
<td>1</td>
</tr>
<tr>
<td>24. When I’m upset, I feel like I can remain in control of my behaviors</td>
<td>1</td>
</tr>
<tr>
<td>25. When I’m upset, I feel guilty for feeling that way</td>
<td>1</td>
</tr>
<tr>
<td>26. When I’m upset, I have difficulty concentrating</td>
<td>1</td>
</tr>
<tr>
<td>27. When I’m upset, I have difficulty controlling my behaviors</td>
<td>1</td>
</tr>
<tr>
<td>28. When I’m upset, I believe that there is nothing I can do to make myself feel better</td>
<td>1</td>
</tr>
<tr>
<td>29. When I’m upset, I become irritated with myself for feeling that way</td>
<td>1</td>
</tr>
<tr>
<td>30. When I’m upset, I start to feel very bad about myself</td>
<td>1</td>
</tr>
<tr>
<td>31. When I’m upset, I believe that wallowing in it is all I can do</td>
<td>1</td>
</tr>
<tr>
<td>32. When I’m upset, I lose control over my behavior</td>
<td>1</td>
</tr>
<tr>
<td>33. When I’m upset, I have difficulty thinking about anything else</td>
<td>1</td>
</tr>
<tr>
<td>34. When I’m upset, I take time to figure out what I’m really feeling</td>
<td>1</td>
</tr>
<tr>
<td>35. When I’m upset, it takes me a long time to feel better</td>
<td>1</td>
</tr>
<tr>
<td>36. When I’m upset, my emotions feel overwhelming</td>
<td>1</td>
</tr>
</tbody>
</table>
Appendix F. Alcohol Use Disorders Identifications Test

For the following questions, 1 standard drink equals one can, glass, or bottle of beer, one shot of liquor or mixed drink, or one glass of wine.

1. How often do you have a drink containing alcohol?

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Monthly or Less</th>
<th>2 to 4 times</th>
<th>2 to 3 times</th>
<th>4 or more times</th>
</tr>
</thead>
<tbody>
<tr>
<td>a month</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>a week</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. How many drinks containing alcohol do you have on a typical day when you are drinking?

<table>
<thead>
<tr>
<th></th>
<th>1 or 2</th>
<th>3 or 4</th>
<th>5 or 6</th>
<th>7 to 9</th>
<th>10 or more</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

3. How often do you have 6 or more drinks on one occasion?

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Less than Monthly</th>
<th>Monthly</th>
<th>Weekly</th>
<th>Daily or almost daily</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

4. How often during the last year have you found that you were not able to stop drinking once you had started?

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Less than Monthly</th>
<th>Monthly</th>
<th>Weekly</th>
<th>Daily or almost daily</th>
</tr>
</thead>
<tbody>
<tr>
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<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

5. How often during the last year have you failed to do what was normally expected from you because of drinking?

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Less than Monthly</th>
<th>Monthly</th>
<th>Weekly</th>
<th>Daily or almost daily</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
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</tr>
</tbody>
</table>
6. How often during the last year have you needed a first drink in the morning to get yourself going after a heavy drinking session?
   Never  Less than Monthly  Monthly  Weekly  Daily or almost daily
   0       1              2        3        4

7. How often during the last year have you had a feeling of guilt or remorse after drinking?
   Never  Less than Monthly  Monthly  Weekly  Daily or almost daily
   0       1              2        3        4

8. How often during the last year have you been unable to remember what happened the night before because you had been drinking?
   Never  Less than Monthly  Monthly  Weekly  Daily or almost daily
   0       1              2        3        4

9. Have you or someone else been injured as a result of your drinking?
   No       Yes, but not in the last year  Yes, during the last year
   0       2                                4

10. Has a relative or friend, or a doctor or other health worker been concerned about your drinking or suggested you cut down?
    No       Yes, but not in the last year  Yes, during the last year
        0       2                                4
Appendix G. Multidimensional Measure of Emotional Abuse

The following questions ask about the relationship with your dating/intimate partner. Please report how often each of these things has happened in the past 3 months. Please select 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 3 months, but it has happened before that, select “7”.

How often did this happen in the past 3 months?
1=This never happened.
2=Once in the past 3 months.
3=Twice in the past 3 months.
4=3-5 times in the past 3 months.
5=6-10 times in the past 3 months.
6=11-20 times in the past 3 months.
7=More than 20 times in the past 3 months.
8=Not in the past 3 months, but it did happen before.

1. Asked your partner where they had been or who they were in a suspicious manner
   1a. Your partner did this to you

2. Secretly searched through your partner’s belongings
2a. Your partner did this to you

3. Tried to stop your partner from seeing certain friends or family members

3a. Your partner did this to you

4. Complained that your partner spends too much time with friends

4a. Your partner did this to you

5. Got angry because the your partner went somewhere without telling you

5a. Your partner did this to you

6. Tried to make your partner feel guilty for not spending enough time together

6a. Your partner did this to you

7. Checked up on your partner by asking friends or relatives where they were or who they were with

7a. Your partner did this to you

8. Said or implied that your partner was stupid

9a. Your partner did this to you

9. Called your partner worthless

9a. Your partner did this to you

10. Called your partner ugly

10a. Your partner did this to you

11. Criticized your partner’s appearance

11a. Your partner did this to you

12. Called your partner a loser, failure, or similar term

12a. Your partner did this to you
13. Belittled your partner in front of other people
13a. Your partner did this to you

14. Told your partner that someone else would be better partner
14a. Your partner did this to you

15. Became so angry that you were unable or unwilling to talk to your partner
15a. Your partner did this to you

16. Acted cold or distant to your partner when angry
16a. Your partner did this to you

17. Refused to have any discussion of a problem with your partner
17a. Your partner did this to you

18. Changed the subject on purpose when your partner was trying to discuss a problem
18a. Your partner did this to you

19. Refused to acknowledge a problem that your partner felt was important
19a. Your partner did this to you

20. Sulked or refused to talk about an issue with your partner
20a. Your partner did this to you

21. Intentionally avoided your partner during a conflict or disagreement
21a. Your partner did this to you

22. Became angry enough to frighten your partner
22a. Your partner did this to you

23. Put your face right in front of your partner’s face to make a point more forcefully
23a. Your partner did this to you
24. Threatened to hit your partner
24a. Your partner did this to you
25. Threatened to throw something at your partner
25a. Your partner did this to you
26. Threw, smashed, hit, or kicked something in front of your partner
26a. Your partner did this to you
27. Drove recklessly to frighten your partner
27a. Your partner did this to you
28. Stood or hovered over your partner during a conflict or disagreement
Appendix H. Revised Conflicts Tactics Scale

NOTE: The Revised Conflicts Tactics Scale was not included in the document due to copyright.
Appendix I. Additional Information Regarding Study Measures

Childhood Trauma Questionnaire

The CTQ-SF was designed for use across a variety of populations, including diverse samples and both clinical and non-clinical samples (Benstein et al., 2003). The reduced CTQ-SF used in this study was developed using a mixed sample that included adult substance abusing inpatients, adolescent psychiatric inpatients, adult substance abusing community members, and a normative sample of community adults, and individuals within these groups represented diverse racial groups within the US (Bernstien et al., 2003).

Factor Structure. The current CTQ-SF was developed to reduce the number of items on each factor on the original scale and produce a scale with a simple factor structure that would be invariant across multiple clinical and non-clinical groups to capture retrospective data regarding childhood abuse experiences among a broad range of populations (Bernstien et al., 2003).

Bernstein and colleagues (2003) determined the factor structure of the CTQ-SF using confirmatory factor analyses among four groups of participants (adult substance abusing inpatients, adolescent psychiatric inpatients, adult substance abusing community members, and a normative sample of community adults). All fit indexes included in their study were good, indicating that the proposed factor structure was a good fit to the data for all groups. Following these analyses, the authors tested for variance on factor loadings across groups, and found invariance, indicating that the factors were consistent across groups (Bernstein et al., 2003).
The CTQ-SF has been evaluated for use in non-clinical samples. One study examined the CTQ-SF among a community sample with a wide variety of childhood abuse histories (Scher, Stein, Asmundson, McCreary, Forde, 2001). Results indicated that the CTQ-SF demonstrated a 5-factor model consistent with previous literature and acceptable internal consistency, confirming that CTQ-SF is appropriate to use with non-clinical samples. Furthermore, the factor structure has been evaluated with a college student population (Paivo & Cramer, 2004). Paivo and Cramer (2004) used principal components analysis to determine the factor structure with a sample of Canadian undergraduate students. The principal components analysis yielded a five-factor solution comprised of emotional, physical, and sexual abuse, as well as emotional and physical neglect, consistent with the factors determined by Bernstein and colleagues (2003). However, a more recent study found some inconsistencies with the 5 factor structure among college students. Dudeck and colleagues (2015) examined the factorial validity of the CTQ-SF in German psychiatric patients, prison inmates, and university students and evaluated gender differences on factor structure. They noted that student scores conveyed skewed distributions, as contrasted to patient and inmate groups who were similar to one another and demonstrated non-skewed distributions. Using model fit analyses, the study found that the factor loadings were confirmed for inmates and patients but that the physical neglect subscale was not confirmed for male college students only. No other gender differences emerged on factor loadings (Dudeck et al., 2015). Of note, the physical neglect subscale was not utilized in the present study and the sample was composed only of women.
**Reliability.** The CTQ-SF has demonstrated good reliability overall ($\alpha=.91$) and acceptable internal consistencies for all subscales utilized in the present study in multiple studies (i.e. all $\alpha$’s .75-.97; Paivo & Cramer, 2004; emotional abuse, $\alpha=.83$; Physical abuse, $\alpha=.69$; Sexual abuse, $\alpha=.94$; Scher, Stien, Asmundson, McCreary, & Forde, 2001). Internal consistencies in the present sample are reported in the main text. In regards to test-retest reliability, in a study that examined use of the CTQ-SF among college students, all factors demonstrated good test-retest reliability (i.e. all $r$’s .85-.97, $p$’s $<$) at a 8-10 week retest following in initial assessment.

**Validity.** One study administered the CTQ-SF and an interview-based childhood abuse measurement at four different time points in a sample with various emotional disorders (i.e., various depression and anxiety presentations) (Spinhoven, et al., 2014). Results indicated that the CTQ-SF was more sensitive at detecting emotional abuse and neglect than an interview based measure, demonstrated good test re-test reliability at 4 year follow up, and showed convergent validity with the interview based measure (Spinhoven et al., 2014). In regards to convergent validity, the study utilized spearman’s rank order coefficient correlation values, and found significant associations between all physical, sexual, and emotional abuse scales of CTQ-SF and the childhood trauma interview (physical: $\rho=.61$; sexual: $\rho=.57$, emotional, $\rho=.57$; Fisher r-to-z transformations adjusted $p$’s $<.01$). Another study examined the validity of the CTQ-SF before and after therapy for child-abuse related issues. The study found that survey responses remained stable following treatment, and that the CTQ-SF scores demonstrated evidence for convergent validity, such that the CTQ-SF demonstrated associations with
trauma-related measures in the therapy context (e.g. distress, depression, and PTSD symptom severity) in the expected directions (Paivio, 2001).

**Difficulties in Emotion Regulation Scale**

**Factor structure.** Although DERS subscales are highly correlated with one another, each subscale represents a distinct facet of emotion regulation (Gratz & Roemer, 2004). During test development, Gratz and Roemer (2004) used exploratory factor analysis using the principal axis factoring method of extraction and pro-max oblique rotation to determine whether the factor structure reflected their theoretical conceptualization of the facets of emotion regulation. The authors evaluated factor loadings by using the scree test, and determined that 6-7 factors were possible, then retained a final 6 factors to enhance interpretability. All factor loadings on the final 6 factors were .40 or higher. The authors concluded that the factors they retained meaningfully reflected the theoretical facets of emotion regulation. The authors also conducted analyses to determine gender differences in reporting of subscales and total scores, and found that the only significant difference in scores between men and women was on the emotional awareness factor, such that women were significantly higher in emotional awareness (Grats & Roemer, 2004).

Additional psychometric research regarding the DERS has demonstrated that this measure is appropriate for use across a variety of populations. One study with college students found that the psychometric properties of the DERS was consistent across demographic groups (Ritschel, Tone, Schoemann, & Lim, 2015). The study evaluated the factor structure of the DERS and tested to see if the model fit differed between men and
women. The study found no significant differences in model fit between genders, indicating that the DERS is appropriate to use among both college men and college women. The study also reported similar psychometric properties across Caucasian, African American and Asian college students, and a consistent 6 factor structure fit across all groups included in the sample (Ritschel et al., 2015).

**Reliability.** The DERS historically demonstrates good reliability for each subscale (all α’s >.80) (Gratz & Roemer, 2004). The DERS demonstrates sound test re-test reliability over a period of 1-2 months (Gratz & Roemer, 2004). Reliability coefficients are similar regardless of gender and race among college students (Ritschel et al., 2015).

**Validity.** The DERS has also been evaluated in regards to validity. The DERS has demonstrated good construct validity when analyzed with other measures of emotion regulation (e.g. Gratz & Roemer, 2004; Neumann et al., 2010). One study examined correlations between DERS scores and scores on a measure of negative mood regulation, finding that all corresponding subscales on both measures were significantly correlated in the expected directions (all p’s<.01). Similarly, the construct validity of the DERS has been examined among a sample of community adolescents (Neumann, van Lier, Gratz, & Koot, 2010). Participants of the study completed the DERS and other measures of internalizing and externalizing behavior. Analyses indicated that the subscales were meaningfully related to adolescents’ scores on internalizing and externalizing behaviors (Neumann et al., 2010). Additionally, the study found no differences in these associations between men and women (Neumann et al., 2010).
The DERS has also demonstrated good predictive validity of behaviors associated with emotion regulation difficulties (Gratz & Roemer, 2004). The authors of the measure validated the DERS through predicting outcomes theorized to be related to poor emotion regulation, including self-harm and frequency of partner abuse. The correlations between the overall DERS score and self-harm were statistically significant in the expected direction among both women and men, and the correlation between the total DERS score and intimate partner abuse was statistically significant in the expected direction among men (Gratz & Roemer, 2004). Additionally, certain subscales were associated with outcomes. Impulsivity and difficulties engaging in goal-directed behavior were associated with partner abuse among men and women, and lack of emotional clarity, nonacceptance of negative emotional responses, and limited access to emotion regulation strategies were associated with anxiety and depression (Gratz & Roemer, 2004).

Lastly, Gratz and Roemer (2004) conducted analyses examining the incremental validity of the DERS. The authors used partial correlations between DERS and experiential avoidance and emotional expressivity measures, and found that all of the DERS variables accounted for a significant amount of additional variance in experiential avoidance, above and beyond that accounted for by a measure of negative mood regulation, and the awareness, clarity, goals, and strategies subscales accounted for a significant amount of variance beyond the negative mood regulation measure in emotional expressivity.

**Alcohol Use Disorders Identification Test**
**Factor Structure.** Although the AUDIT is frequently used as a total severity score, it can also be used to determine categories of alcohol misuse, to differentiate between harmful, hazardous, and dependent drinking through endorsement of various patterns of items (Saunders et al., 1993). There is some debate regarding whether the factor structure of the AUDIT is better captured through a two or three factor model. O’Hare and Sherrer (1999) conducted a factor analysis using varimax rotation and concluded that the factor loadings supported a two-factor model with the dimensions of “alcohol consumption” and “drinking problems.” All but one of 10 items obtained factor loading at .60 or greater using varimax rotation, and only one item (“unable to remember after drinking”) loading ambiguously on both factors. The two-factor model yielded eigenvalues below 1.0. Additional support has been garnered for this two-factor model. Conley and O’Hare (2006) conducted exploratory factor analysis and used Eigenvalues and Cattell’s Scree test to determine factors. Results indicated that dependent and hazardous items loaded on the same factor.

Conversely, recent studies have found evidence that the original three-factor model provides a better fit for the data (Tuliao, Landoy, & McChargue 2015). The study included college alcohol users from the U.S. and the Philippines. The authors tested one, two (i.e. consumption and alcohol related problems), and three (i.e. consumption, dependence, and alcohol-related problems) factor models using confirmatory factor analyses. They determined that a 2-factor model fit the data, but that the 3-factor model provided a better fit, and that factors were invariant across populations, indicating cross-
cultural validity for the factor structure. Thus, the AUDIT 3-factor model is appropriate for use across cultural groups (Tuliao et al., 2015).

**Reliability.** The AUDIT historically demonstrates high internal consistency (average $\alpha$’s = .81-.93; Saunders, et al., 1993). Conley and O’Hare (2006) compared AUDIT scores in a sample of individuals arrested for drunk driving and college students to compare utility of use of the measure across multiple types of drinking populations, and evaluate the internal consistency in both samples. Results indicated that internal consistency was the highest among drunk drivers ($\alpha$=.87), but still acceptable among college students ($\alpha$=.76), and when the sample was combined ($\alpha$=.81). Thus, although the measure may perform slightly better in reliability analyses with some samples, it appears to be a reliable measure across populations. Relatedly, Thomas and McCambridge (2007) examined AUDIT scores among community youth in the United Kingdom. The study found evidence for good test re-test reliability after a period of 3 days (Mean score at time 1= 9.82, Mean at time 2=9.5, differences between scores were nonsignificant, $t[93]=1.39, p=.17$) and also found a high internal consistency for time 1 ($\alpha$=.83; time 2 $\alpha$ was not reported).

**Validity.** The AUDIT also demonstrates good convergent validity with other measures of alcohol use, including timeline follow-back and daily diary assessment techniques, and with other alcohol measures widely used among college students (e.g., the Rutgers Alcohol Problem Inventories; Thomas & McCambridge, 2008). Thomas and McCambridge (2007) compared AUDIT scores to those of other measures of hazardous drinking, including a timeline follow-back measure that evaluates past 7 day drinking
behaviors, an alcohol dependence questionnaire, and the Rutgars Alcohol Problems Inventory, a measure commonly used to assess adolescent alcohol problems. AUDIT scores were significantly correlated with the other online measures of alcohol use (all r’s>.53; all p’s <.001). The study also used linear regression analysis to predict AUDIT score using scores from other measures in order to evaluate construct validity between measures. Results indicated that all other measures were able to significantly predict AUDIT scores (p’s <.001; Thomas & McCambridge, 2007).

**Diagnostic Utility.** The AUDIT is widely used among college students, and displays sound psychometric properties when used with this population. In a comparative study, the AUDIT outperformed other alcohol use screening measures, and demonstrated good sensitivity (80%) and specificity (78%) for detecting alcohol use problems, and good positive (37%) and negative (77%) predictive value of hazardous drinking (Aergeerts et al., 2000). Another study found similar sensitivity of 91% and specificity of 60% of the AUDIT to detect high risk drinkers among college students (Kokotailo et al., 2004). The study utilized a convenience sample of college students from a college health clinic who completed a diagnostic interview that utilized 28-day follow-back timeline methodology and an AUDIT questionnaire. Both men and women were included in the study. Using receiver operator curves (ROC), the authors determined that that AUDIT had the highest area under the ROC curve for detecting high-risk alcohol use (.87) and lowest for identifying lifetime abuse or dependence (.77). Thus, the authors concluded that the AUDIT is a useful diagnostic screening tool among college students and detecting high risk alcohol use is a particular strength of the AUDIT.
Multidimensional Measure of Emotional Abuse

Reliability. The MMEA demonstrates good internal consistency with undergraduate women which is comparable to or exceeds that of the CTS2 and other measures of psychological aggression (Ro & Lawrence, 2007; Shorey et al, 2012). In one study internal consistency estimates for MMEA total scores and subscales ranged from acceptable to excellent (all α’s for perpetration > .83, all α’s for victimization >.84 (Shorey et al., 2012). Similarly, a separate study found that all perpetration and victimization α’s exceeded 0.88, with one exception that women’s total score of perpetration was lower (α=0.77; Ro & Lawrence, 2007).

Validity. The MMEA was designed to be a comprehensive measure of psychological aggression and provides a specialized assessment of this construct (Shorey, Brasfield, Febres, Cornelius, & Stuart 2012). Analyses of validity of the MMEA support this. The MMEA demonstrates good convergent validity across psychological aggression measures (Ro & Lawrence 2007; Shorey et al., 2012). One study of the MMEA with married adults that examined 4 measurements of psychological aggression found that the MMEA demonstrated correlations with the other measures that ranged from 0.48 to 0.69, with a mean $r$ of 0.58. The authors concluded that these correlations indicated that the four measures of psychological aggression reflect similar although not identical constructs of psychological aggression (Ro & Lawrence, 2007). Similarly, a separate study observed moderate to high correlations among 3 measures of psychological aggression among college students. The correlations ranged from .24 to .86, and all correlations were statistically significant (Shorey et al., 2012).
Ro and Lawrence (2007) also conducted discriminant validity analyses with the MMEA to explore whether subscales of the MMEA were different enough to be considered distinct facets of same construct. Overall, the correlations were moderate, and all but three of the 24 correlations were below 0.70, suggesting that the majority of the subscales are similar enough to be conceptualized as measuring the same construct but that the scale is indeed multidimensional. The study also examined discriminant validity of the MMEA with measures of communication, positive affect, and negative affect. The study found that the correlations between these measures were low ($r$’s < .24), indicating that although the constructs were related, the MMEA exhibited discriminant validity. The study also examined external validity of the MMEA to determine whether it was related to relevant measures. The authors used correlational analyses to examine the associations between the MMEA total score and subscales with marital satisfaction, depressive symptoms, and physical aggression reports. They found that both psychological aggression perpetration and victimization was significantly and moderately correlated in the expected directions with the constructs of interest (most $r$’s fell between .28 and .88 with $p$ < .05).

**Revised Conflict Tactics Scales Physical & Sexual Aggression Subscales**

**Factor structure.** Several studies examining the CTS2 have garnered support for a theoretically valid factor structure among several populations, including college students (e.g. Anderson & Leigh; Straus, 2004; Swan, Gambone, Van Horn, Snow, & Sullivan, 2012). Although the perpetration subscales of the original CTS were designed for male perpetrators, researchers have determined that the CTS2 perpetration subscales
are appropriate for use with women. One study conducted confirmatory factor analyses to examine the model fit of the theoretical subscales for women’s perpetration and victimization. All victimization subscales provided a good fit to the data. In regards the perpetration, the model fit was poor with the original factor structure including sexual perpetration, but once these questions were removed the physical and psychological aggression perpetration subscales provided a good fit to the data (Swan et al., 2012). Of note, women’s sexual perpetration was not examined in the present thesis, and the sexual perpetration subscale was not used.

**Reliability.** Consistent with past research (e.g. Anderson & Leigh, 2010; Straus et al., 1996; Straus, 2004) internal consistencies of the present study’s variables of interest ranged from minimally acceptable to excellent (Anderson & Leigh, 2010; physical perpetration, α=.75, physical victimization, α=.92; sexual victimization, α=.62). In regards the minimally acceptable alpha for sexual victimization in the present study, this is not uncommon in the literature (e.g. Anderson & Leigh, 2010). In some cases, perpetrators may not use multiple, different acts of violence, and thus reports of victimization can vary widely and therefore may artificially decrease internal consistency in some samples (Ryan, 2013). In regards to perpetration of physical aggression, one study looked at reliability among university students from 17 nations to determine cross-cultural reliability. The study found that among women’s reports of physical aggression the pooled sample reliability was good (α=.86) and each individual nation yielded a good alpha (all α’s >.82), indicating that the measure is reliable for us in a wide variety of cultures.
Validity. The CTS2 has demonstrated good construct and discriminant validity in studies used to compare its utility with other measures of dating violence in college populations (Anderson & Leigh 2010; Straus et al., 1996). Additionally, the physical perpetration subscale has been found valid in several different countries worldwide, and social desirability does not appear to have a large impact on scores (Straus, 2004). In the initial validation study, the authors determined construct validity through examining the correlation of scales with one another, based on the theory that perpetrators and victims of dating violence would experience multiple forms of aggression. All subscales were found to be highly correlated (Straus et al., 1996). Another study examined the convergent validity of the CTS2 subscales in a sample of adolescent males and females Cascardi, Avery-Leaf, O’Leary, & Smith-Slep, 1999. The researchers conducted correlations between CTS2 scores and measures of jealous actions against one’s partner, use of control tactics in relationships, and attitudes justifying the use of violence by men and women, and found that CTS2 scores were correlated with these measures in the expected directions ($r’s=.17-.32$, all $p’s<.05$).

The CTS-2 has also been evaluated in samples comparing victims and non-victims of DV. One study examined the discriminant validity of the CTS2 by comparing scores of women who had experienced dating violence and others who had not (Salvina Signorelli, Arcidiacono, Musumeci, Di Nuovo, & Aguglia 2014). Results indicated that the groups differed significantly on all victimization subscales of the CTS2, suggesting that the measure was accurately capturing victimization experiences. Additionally, the study examined external concurrent validity through examining associations of abuse
severity and mental health symptoms including PTSD, alexithymia, and depression symptoms. Results indicated expected associations with these constructs, indicating evidence for external concurrent validity.