

APPROVAL SHEET

Title of Dissertation: Experiential Avoidance as a Mediator of the Relationship Between Posttraumatic Stress Disorder Symptoms and Intimate Partner Violence Perpetration

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ABSTRACT

Title of Document: EXPERIENTIAL AVOIDANCE AS A MEDIATOR OF THE RELATIONSHIP BETWEEN POSTTRAUMATIC STRESS DISORDER SYMPTOMS AND INTIMATE PARTNER VIOLENCE PERPETRATION

Adam Douglas LaMotte, Ph.D., 2020

Directed By: Christopher M. Murphy, Ph.D., Professor of Psychology

Past research has established that trauma and posttraumatic stress disorder (PTSD) are important risk factors for intimate partner violence (IPV) perpetration. Much of the research conducted to better understand this phenomenon has focused on cognitive biases as explanatory mechanisms (e.g., hypervigilance to threat cues, difficulties generating non-aggressive responses to conflict). The current study aims to contribute to this literature by investigating experiential avoidance (i.e., a tendency to avoid unwanted internal experiences) as a mediator between PTSD symptoms and IPV perpetration. Seventy-four men presenting for services at an Abuse Intervention Program were recruited to participate in the study. Participants completed assessments of trauma exposure, PTSD symptoms, trait experiential avoidance, and IPV perpetration. In addition, they completed a novel measure of experiential avoidance in the context of hypothetical distressing relationship situations, in which they reported: 1) their experience of negative emotions, 2) their inclination to avoid these emotional experiences, 3) the extent to which they believed different aggressive and non-aggressive responses would reduce their negative emotions, and 4) their perceived likelihood of engaging in these actions. Results indicated that trauma and PTSD symptoms were associated with a greater intensity of negative emotions during distressing relationship situations, as well as greater experiential avoidance. Experiential avoidance significantly mediated the relationship between PTSD symptoms and Emotional Abuse

perpetration, but not Physical Assault or Sexual Coercion perpetration. The belief that aggressive actions would reduce negative emotions did not moderate this mediating relationship.

Participants generally reported that non-aggressive actions were more likely than aggressive actions to reduce negative mood states. Anticipated reduction in negative emotion was strongly predictive of one's perceived likelihood of engaging in each action, and this relationship was attenuated for participants higher in experiential avoidance. Study findings suggest that people with PTSD are more likely to view immediate emotion reduction as a primary goal during difficult relationship situations, and are then more likely to use abusive behaviors (e.g., yelling, violating a partner's privacy) in order to reduce negative emotions. Overall, the results of this study highlight experiential avoidance as an important treatment target for trauma-informed IPV intervention programs.

Experiential Avoidance as a Mediator of the Relationship Between Posttraumatic Stress Disorder
Symptoms and Intimate Partner Violence Perpetration

by

Adam Douglas LaMotte

Dissertation submitted to the Faculty of the Graduate School of the
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Dedication

This dissertation is dedicated to my grandfather, Michael J. Singer.

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Chapter 1: Introduction

Overview of Project

Intimate partner violence (IPV) represents a serious public health problem that deserves increased clinical and research attention. In an effort to improve the quality of IPV intervention services, several past studies have identified trauma and posttraumatic stress disorder (PTSD) symptoms as important risk factors to consider. Specifically, past research has found that greater exposure to trauma and experience of PTSD symptoms are associated with greater perpetration of IPV (e.g., Delsol & Margolin, 2004; Taft, Watkins, Stafford, Street, & Monson, 2011). While there is a growing literature on the nature of this connection, little work has focused on the emotional mechanisms involved in this relationship. The current study seeks to fill this gap in the literature by examining experiential avoidance (specifically, the avoidance of distressing emotions) as a mediating variable between PTSD symptoms and IPV perpetration among men presenting for treatment at an Abuse Intervention Program (AIP).

Intimate Partner Violence: Definitions and Impact

The US Centers for Disease Control and Prevention (Breiding, Basile, Smith, Black, & Mahendra, 2015) outline four distinct types of IPV: (1) physical violence (i.e., “intentional use of physical force with the potential for causing death, disability, injury, or harm”), (2) sexual violence (i.e., any sexual acts that occur without the victim’s freely given consent), (3) stalking (i.e., “a pattern of repeated, unwanted, attention and contact that causes fear or concern for one’s own safety or the safety of someone else”), and (4) psychological aggression (i.e., “the use of verbal and non-verbal communication with the intent to: a) harm another person mentally or emotionally, and/or b) exert control over another person”; p. 11-15). The CDC and National Center for Injury Prevention and Control conducted a National Intimate Partner and Sexual

Violence Survey (Black et al., 2011). This nationally-representative survey estimated that that approximately 4.7 million women and 5.4 million men had experienced physical IPV victimization over the past 12-months. In addition, one in three women (39.2 million) and over one in four men (31.9 million) in the United States report lifetime exposure to physical IPV. The survey also found that approximately 11.2 million women had been raped by an intimate partner and 12.8 million women had been stalked by an intimate partner at least once in their lifetime. Rates of psychological IPV were the highest (defined as either expressive aggression [e.g., denigration, acting angry in a way that seems dangerous] or coercive control [e.g., tried to keep the person from seeing certain friends or family members]), with nearly half of women and men reporting exposure over their lifetimes.

IPV can have a wide range of detrimental consequences for the survivor. For example, Catalano (2013) analyzed data from the Bureau of Justice Statistics' National Crime Victimization Survey and found that 50% of women and 44% of men reporting criminal victimization by an intimate partner had suffered a related injury. Additionally, 13% of women's and 5% of men's victimizations resulted in serious injuries, including internal injury, unconsciousness, broken bones, knife/gunshot wounds, and sexual violence injuries. Beyond physical injuries, IPV can have harmful implications for long-term physical health. A study by Campbell (2002) found that women who have survived abuse report an approximately 60% higher rate of all physical health problems relative to women who report no exposure to abuse. Physical health complications associated with IPV victimization include headaches, gynecological pain/infection, gastrointestinal disorders, cardiovascular concerns, and chronic pain (Campbell, 2002; Leserman & Drossman, 2007; Stene, Jacobsen, Dyb, Tverdal, & Schei, 2013; Wuest et al., 2010). Survivors of IPV may also sustain traumatic brain injuries and

experience related cognitive deficits such as problems in memory, learning, and cognitive flexibility (Kwako et al., 2011; Valera & Berenbaum, 2003). Furthermore, there is a large research base indicating that IPV is a risk factor for a number of mental health symptoms and disorders, including depression, anxiety, posttraumatic stress disorder (PTSD), and substance use problems (Golding, 1999; Smith, Homish, Leonard, & Cornelius, 2012; Spencer et al., 2017). Overall, it is clear that IPV is both alarmingly common and detrimental to physical and psychological health.

Trauma, PTSD, and Their Connection to IPV Perpetration

Definitions of trauma and PTSD. Considering the profound negative effects of IPV for survivors, it is important to identify and address key risk factors for the IPV perpetration with the aim of more effectively preventing it. One such risk factor is psychological trauma. The *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition* (DSM-V; American Psychiatric Association [APA], 2013) defines trauma in the context of PTSD as:

exposure to actual or threatened death, serious injury, or sexual violence in one (or more) of the following ways: (1) directly experiencing the traumatic event(s), (2) witnessing, in person, the event(s) as it occurred to others, (3) learning that the traumatic event(s) occurred to a close family member or close friend. In cases of actual or threatened death of a family member or friend, the event(s) must have been violent or accidental, (4) experiencing repeated or extreme exposure to aversive details of the traumatic event(s) (e.g., first responders collecting human remains; police officers repeatedly exposed to details of child abuse). (p. 271)

Some researchers have suggested that this definition leaves out other closely related and significant experiences, such as childhood neglect (McDonald, Borntrager, & Rostad, 2014). The

most well understood reaction to traumatic experiences is PTSD, which involves a range of symptoms that span from re-experiencing of the trauma (e.g., intrusive memories of the traumatic event, flashbacks to the time of the trauma, physiological and psychological distress when presented with trauma cues), persistent avoidance of reminders of the trauma (e.g., avoidance of distressing thoughts, memories, feelings, about the trauma, as well as external reminders), negative alterations in cognitions and mood (e.g., persistent negative emotional states, feelings of detachment from others, inability to experience positive emotions, and negative beliefs about oneself, others, and the world), and hyperarousal (e.g., hypervigilance to threat cues, irritability, concentration problems, and sleep disturbance; APA, 2013).

Trauma and PTSD as risk factors for IPV perpetration. Research conducted over the past 20 years indicates that the experience of trauma confers risk for IPV perpetration. For example, a study by Hahn, Aldarondo, Silverman, McCormick, & Koenen (2015) investigated the connection between lifetime PTSD diagnosis and past-year physical IPV perpetration among a nationally-representative sample of heterosexual men. The researchers found that lifetime PTSD diagnosis was associated with increased risk of perpetrating past-year physical IPV (Adjusted Odds Ratio = 2.19), even after controlling for lifetime Major Depressive Disorder diagnosis, past year substance abuse/dependence, age, race/ethnicity, educational attainment, annual household income, and past-year poverty. This finding from an epidemiologic study augments findings from other, smaller-scale studies on PTSD and IPV perpetration. For instance, a meta-analysis by Taft and colleagues (2011) using data from 31 studies found medium-sized associations between PTSD and both physical (mean $r = .36$) and psychological (mean $r = .32$) IPV. The strength of this relationship was higher in military than civilian samples and was higher for men than for women (Taft et al., 2011). Similarly, Delsol and Margolin (2004) reviewed a particular type of

trauma, exposure to violence in the family-of-origin, with respect to IPV. They found that, across studies, about 60% of the men who had been violent with their spouse had been exposed to violence in the family of origin, compared to about 20% of comparison men who had not been violent with their spouse.

The importance of trauma and PTSD symptoms to IPV perpetration has also been shown in studies of clinical samples of partner-violent men. For example, Maguire and colleagues (2015) examined trauma experiences among 217 men who were court-mandated to attend an IPV intervention program. They found that 94% of participants reported at least one potentially traumatic event during their lifetime, with participants reporting an average of 6 different types of trauma. Rates of probable PTSD diagnosis were not reported. However, they found that the level of trauma exposure (operationalized as the number of different types of trauma experienced) was significantly associated with physical and psychological IPV, and that PTSD symptoms significantly mediated this relationship for psychological IPV. A similar study by Semiatin, Torres, LaMotte, Portnoy, and Murphy (2017) examined trauma and PTSD among 293 men enrolled in an IPV intervention program, primarily due to court-referral. Similar to Maguire and colleagues (2015), they found that 77% of participants reported past trauma exposure, with 11% of the sample meeting probable diagnosis of PTSD, which is approximately 3 times higher than the 12-month prevalence of PTSD in the United States (Kessler, Chiu, Demler, Merikangas, & Walters, 2005). They also found that PTSD symptoms were associated with physical IPV and emotional abuse, as well as a range of other clinical problems that are relevant to IPV intervention work, including depression, alcohol problems, drug use, generalized violence, relationship satisfaction, and relationship problems. Finally, PTSD symptoms uniquely predicted relationship abuse even when controlling for illicit drug use, alcohol problems, and depression.

Other studies among clinical samples of IPV offenders have found rates of probable PTSD of 13% (Rosenbaum & Leisring) and 28% (Hoyt, Wray, Wiggins, Gerstle, & Maclean, 2012).

Recent studies have also found that PTSD influences risk of IPV during and following attendance of an IPV intervention program. Creech and colleagues (2017) analyzed PTSD as a predictor of physical and psychological IPV across a 9-month period of time surrounding IPV treatment for military veterans. They found that PTSD was a strong predictor of both physical and psychological IPV, controlling for the effects of time, treatment, study condition, and number of sessions attended. Notably, 55% of this sample met criteria for PTSD. Another recent study by Miles-McLean and colleagues (2018) examined PTSD as a predictor of treatment engagement and criminal recidivism among men enrolled in an IPV intervention program. They found that having higher PTSD symptoms was associated with lower homework compliance and lower ratings of group cohesion during treatment. Furthermore, those with a probable PTSD diagnosis, compared to those without PTSD diagnosis, had 4 times higher odds of general violence recidivism as assessed by criminal justice data during the two years after IPV treatment, and this relationship remained significant when controlling for substance use and depression.

In response to this general literature, a trauma-informed IPV intervention program, called *Strength at Home* (SAH), has been developed for veterans (see Taft, Murphy, & Creech, 2016). A recent randomized controlled trial comparing SAH to a control group receiving treatment-as-usual through the Veterans Affairs system, found that SAH participants showed significantly greater reductions in physical and psychological IPV (Taft, Macdonald, Creech, Monson, & Murphy, 2016). This trauma-informed intervention model for IPV has not yet been adapted for civilian populations, though the literature suggests that trauma and PTSD are important risk factors among civilians as well (e.g., Maguire et al., 2015; Semiatin et al., 2017). Considering

increased interest in developing and implementing trauma-informed IPV interventions, theory and basic research to understand the connection between trauma and IPV are crucial and could assist in determining appropriate treatment targets. The general purpose of the current study is to better understand mechanisms that explain how trauma and PTSD symptoms increase one's risk for IPV perpetration.

Social Information Processing Theory. The primary theory that has been used to understand the relationship between trauma, PTSD symptoms, and IPV perpetration is called Social Information Processing (SIP). McFall's (1982) original conceptualization of the SIP model describes a sequence of steps that one goes through when taking in and responding to social situations. *Decoding* represents the first of three broad stages, and involves the reception, perception, and interpretation of incoming social information. Second, the *decision* stage involves response search (i.e., "searching for possible responses that might fit the requirements of the immediate task"), response test (i.e., "testing the match between alternative responses and task demands"), response selection (i.e., "selecting the best response for the particular situation"), repertoire search (i.e., "search of the person's own repertoire for exemplars of the selected response"), and utility evaluation (i.e., "evaluation of the utility of carrying out the selected response"; McFall, 1982, p. 26). The final stage, called *encoding*, involves executing the selected response and self-monitoring to examine any discrepancies between the intended and observed effects of the response. At this point, the process begins again, with use of *decoding* skills. Holtzworth-Munroe (1992) applied the SIP model to the study of IPV. Several early studies indicated that partner-violent men display deficits at both decoding and decision stages relative to non-violent controls (Anglin, & Holtzworth-Munroe, 1997; Eckhardt, Barbour, & Davison, 1998; Holtzworth-Munroe & Hutchinson, 1993).

The SIP model has been reformulated by other researchers since its original conceptualization by McFall (1982). In the context of children's social adjustment, Crick and Dodge (1994) propose six distinct stages, including: 1) encoding of cues (similar to what McFall [1982] refers to as *decoding*), 2) interpretation of cues, 3) clarification of goals, 4) response access or construction, 5) response decision, and 6) behavioral enactment. Crick and Dodge (1994) also suggest that, at each of these stages, there is interaction with a central database of social schemas, scripts, and knowledge that is influenced by the individual's learning history. Additionally, they suggest that people may engage in multiple steps simultaneously, although the processing of and response to each piece of new information is believed to occur through this sequence of steps (Crick & Dodge, 1994). Furthermore, they suggest that many of the SIP steps occur automatically, but can be called into conscious awareness (Crick & Dodge, 1994). The SIP model does not necessarily presuppose a perfectly rational actor. Instead, it reflects a "task analysis" of human social behavior, breaking down the logical series of processing steps one would go through to arrive at socially competent behavior (Murphy, 2013).

Lemerise and Arsenio (2000) later expanded the model formulated by Crick and Dodge (1994). The primary addition to the model involves the inclusion of emotion processes and their effects on SIP (Lemerise & Arsenio, 2000). They distinguish emotions from cognitions in that they "serve motivational, communicating, and regulatory functions within and between individuals that are distinct from the contributions of cognitive processes [...] to social competence" (Lemerise & Arsenio, 2000, p. 108). Specifically, they suggest that emotions are relevant to SIP in the following ways: 1) the central database of social knowledge includes affective, in addition to cognitive information; 2) encoding and interpretation of cues can be influenced by mood, level of arousal, and discrete emotions (i.e., emotions can contribute to

biases in what information is attended to and the meaning attributed to it); 3) emotions can influence the clarification of current goals (e.g., a person who is currently sad may have a different immediate goals than one who is currently happy); 4) response generation, evaluation, and decision-making can be influenced by as well as influence current emotions (e.g., if avoidance is associated with reduction in anxiety, accessing avoidant responses may mitigate feelings of fear); and 5) emotions can influence one's capacity to carry out a behavioral response consistent with current goals, as emotional expressivity can influence how one's own responses are perceived by others (Lemerise & Arsenio, 2000). Over time, SIP models have evolved from a conceptualization of three linear stages (McFall, 1982) to a conceptualization of six stages that can occur in parallel and are influenced by past and present cognitive and emotional experiences (Crick & Dodge, 1994; Lemerise & Arsenio, 2000). These models have had a profound influence on our understanding of social competence and aggression in children and adolescents (e.g., Fraser et al., 2005; Calvete & Orue, 2011).

Research supporting the SIP Model for understanding PTSD and IPV perpetration.

Several past studies have increased our understanding of how trauma and PTSD symptoms confer risk for IPV perpetration using the SIP model. Taft, Schumm, Marshall, Panuzio, and Holtzworth-Munroe (2008) examined the relationships between family-of-origin maltreatment, PTSD symptoms, social information processing deficits, and men's IPV perpetration among a community sample of 164 couples with a cross-sectional study design. Social information processing was assessed via: 1) the Negative Intentions Questionnaire (NIQ; Holtzworth-Munroe & Hutchinson, 1993), whereby men were presented with 10 problematic marital situation vignettes and were asked to rate their agreement with statements about the wife's negative intentions in the scenarios (i.e., Crick & Dodge's [1994] conception of encoding and

interpretation stages); and 2) a laboratory task in which men were presented with 15 problematic situation vignettes, and were asked what they would say and do in each scenario. These responses were then coded for social competency according to a manual (i.e., Crick & Dodge's [1994] conception of response decision stage). In the final structural equation model, childhood parental rejection and adulthood trauma exposure contributed to PTSD symptoms, and social information processing deficits mediated the relationships between PTSD symptoms and men's physical and psychological IPV perpetration. This study indicates the relevance of biased social information processing in understanding the connection between PTSD symptoms and IPV perpetration.

Another study by Fite and colleagues (2008) examined social information processing deficits as a mediator between a particular type of traumatic experience, exposure to inter-parental violence in childhood, and IPV perpetration in young adulthood using a longitudinal design. When the offspring were age 5, the parents completed interviews about their own and each other's use of physical IPV. At subsequent assessments conducted when the offspring were age 13 and 16, the offspring participants were given a series of SIP measures involving hypothetical scenarios that they were asked questions about. These questions were designed to assess distinct SIP stages, such as encoding (operationalized as memory from important events in the vignette), interpretation of cues (operationalized as hostile attributions about the behaviors in the vignette), response generation (operationalized as aggressive responses generated from the vignette), and response evaluation (operationalized as reported likelihood of aggressive responses having the desired outcome). Finally, offspring participants reported on their own IPV behaviors annually from ages 18 through 21. The researchers found that deficits in the response generation and evaluation stages during adolescence mediated the relationship between

childhood exposure to inter-parental violence and IPV perpetration in young adult relationships. The same was not found for the encoding and interpretation stages, which did not show relationships with exposure to inter-parental violence. This study offers important longitudinal evidence of the relationship between trauma in childhood and later SIP deficits and IPV perpetration. Although there was a lack of findings for encoding and interpretation stages of the SIP model, this may be unique to the population studied (i.e., adolescents rather than adults) or due to the methodological differences used to study them. Indeed, these early stages of SIP have been the primary focus of other theory and research linking trauma and IPV perpetration. A notable distinction between this study and IPV research with adults assessing SIP biases is that the vignettes in this study described scenarios involving peers or adults, rather than a romantic relationship partner.

Theory explaining the connection between trauma and IPV perpetration has highlighted the role of PTSD symptoms in creating a faulty sense of threat, resulting in a tendency to interpret others' intentions as hostile or threatening, and thereby escalating conflict (Chemtob, Novaco, Hamada, Gross & Smith, 1997; Taft, Walling, Howard, & Monson, 2011). Studies examining the encoding and interpretation of cues (early stages of the reformulated SIP model) have provided evidence to support this idea. For example, Taft and colleagues (2015) examined biases at these stages and their relationships with PTSD symptoms, IPV perpetration, and anger expression among a sample of 92 male combat veterans. Specifically, they measured cognitive biases and hostile attributions elicited during a laboratory paradigm, called the Articulated Thoughts in Simulated Situations (ATSS; Davidson, Robins, & Johnson, 1983). The ATSS involves listening to scenarios that are designed to elicit anger (e.g., a scenario in which the participant overhears his hypothetical partner denigrating him to a female friend) and describing

one's thoughts and intended responses at different sections of the scenario. Participants' responses were coded regarding the degree to which they exhibited certain cognitive biases (e.g., all-or-nothing thinking) and hostile attributions about others' behaviors. They found that cognitive biases mediated the relationship between PTSD symptoms and anger expression, but not IPV perpetration. Additionally, they found that hostile attribution biases were associated with IPV perpetration, but PTSD symptoms were not significantly associated with these biases. This study offers partial support to the idea that early SIP stage deficits are implicated in the connection between trauma and aggression.

A study by LaMotte, Taft, and Weatherill (2016) also supports the notion that bias in the encoding and interpretation of cues represents a mechanism explaining the relationship between trauma and IPV perpetration. With a sample of 83 community couples, they examined the associations between trauma exposure, IPV perpetration, and the cognitive schema of mistrust via self-report questionnaires. According to the social cognitive model of PTSD, trauma can have a profound impact on cognitive schemas regarding oneself, other people, and the world, hindering recovery from symptoms (Resick & Schnicke, 1993). For example, trauma can strongly disrupt one's trust in others, because traumatic events are often caused by negligent or purposeful actions of others who are expected to be trustworthy, and decreased trust may be intended as a self-preservation mechanism to reduce vulnerability to further betrayal. A general tendency to mistrust others may then lead to IPV through hostile interpretations of others' behavior, escalating conflict. This study found that, for men, mistrust significantly mediated the relationships between trauma exposure and physical and psychological IPV perpetration. For women in the study, mistrust did not mediate the strong relationship between trauma exposure and IPV perpetration, suggesting that other mechanisms may be more relevant. Using actor-

partner interdependence modeling, they also found that one's own and one's partner's level of mistrust uniquely predicted greater physical and psychological IPV perpetration. These findings support the importance of encoding- and interpretation-stage deficits in understanding the effect of trauma on IPV perpetration risk.

In addition, a study by Sippel and Marshall (2011) examined biased processing of shame cues as a mediator between PTSD symptoms and IPV perpetration. As the authors describe, “shame is characterized by evaluative threats to one's self-schema, which are theorized to increase one's propensity to perceive negative evaluation from others (Gilbert, Pehl, & Allan, 1994) and appraise ambiguous events as representing probable rejection (Claesson & Sohlber, 2002)” (Sippel & Marshall, 2011, p. 904). In order to protect one's vulnerable self-image, one response to shame cues is to direct hostility toward the source of expected rejection, which then may lead to aggressive behavior. In this way, PTSD-related biases in the processing of shame cues may represent encoding- and interpretation-stage deficits in SIP. With a sample of 47 community participants, the authors measured PTSD symptoms, IPV perpetration, and both subliminal and supraliminal shame-processing speed using an emotional Stroop task. They found that faster naming of shame-relevant words (interpreted to reflect correspondence between shame and self-schemas) mediated the relationship between PTSD symptoms and IPV perpetration, and these results were more robust for subliminal than supraliminal shame-processing. These findings offer more support to the idea that trauma and PTSD symptoms can influence early-stage social information processing deficits that confer greater risk for IPV perpetration.

In addition to deficits at the encoding- and interpretation-stages, research has provided support for PTSD-related deficits at the response decision stage. For example, LaMotte, Taft,

Weatherill, and Eckhardt (2017) investigated this in a sample of 92 veterans. PTSD symptoms were assessed through clinician interview, IPV perpetration was assessed in self-report questionnaires with corroborating IPV reports obtained from veterans' partners, and SIP decision deficits were assessed using a laboratory paradigm in which veterans listened to problematic marital situation vignettes and responded with what they would say or do in each situation. These responses were then coded for social competency, similar to procedures in the study by Taft and colleagues (2008). A fully competent response was defined as one that would help solve the problem and make similar problems in the future less likely, and a fully incompetent response was defined as one that would not solve the problem and might make the situation worse (Anglin & Holtzworth-Munroe, 1997; Holtzworth-Munroe & Anglin, 1991). This study found that PTSD symptoms were moderately correlated with response decision-stage SIP deficits, and that these deficits mediated the relationship between PTSD symptoms and psychological (but not physical) IPV perpetration. Additionally, when the different symptom clusters of PTSD were entered into a regression predicting response decision-stage SIP deficits, only emotional numbing emerged as a unique predictor. As past theory and research have implicated hyperarousal in early SIP-stage deficits (Chemtob et al., 1997; Taft, Walling, et al., 2011), this finding may suggest that unique symptoms of PTSD are more responsible for later-stage deficits. For example, lack of positive affect may make it difficult to generate positive and helpful responses to conflict that promote the couple's best interest in the long-term. However, considering the strong overlap between symptom clusters, these findings would need to be verified through further research.

Marshall, Robinson, and Azar (2011) added to this literature by examining emotional factors in the connection between trauma and IPV perpetration. With a sample of 185 community participants, they measured posttraumatic cognitions, emotion dysregulation, and

IPV perpetration via self-report. Additionally, they measured anger misappraisal through a laboratory task in which participants were asked to identify emotions present in sentences read with different affective inflections. They found that the relationship between posttraumatic cognitions and physical and psychological IPV was mediated by both anger misappraisal and emotion dysregulation independently. Anger misappraisal in this study represents deficits at the encoding and interpretation stages of the SIP model, and emotion dysregulation could be the result of deficits at several other stages.

Overall, the studies that have been conducted thus far that employ the SIP model to understand the connection between trauma-related sequelae and IPV perpetration have shown deficits at the encoding and interpretation stages (e.g., general mistrust of others, inclination to perceive others as angry or hostile, tendency to assume negative intentions from others, faster processing of shame information), as well as at the response decision stage (e.g., choosing less helpful, more harmful responses to marital conflict situations). However, with the exception of the two studies by Marshall and colleagues (Marshall et al., 2011; Sippel & Marshall, 2011), research in this area has focused on cognitive factors in the SIP model, and has not included the role of emotions. This is notable, both because trauma and PTSD have profound effects on the frequency and intensity of negative mood states (Gillihan, Cahill, & Foa, 2014), and because reformulation of the SIP model has highlighted the impact of emotions on this process (Lemerise & Arsenio, 2000). The purpose of the current study is to better understand these emotional contributions by examining the construct of experiential avoidance.

Experiential Avoidance, Trauma/PTSD, and IPV Perpetration

Definition of Experiential Avoidance. Experiential avoidance may represent a key mediator of the relationship between trauma exposure/PTSD symptoms and IPV perpetration.

Although the term *experiential avoidance* is most associated with Acceptance and Commitment Therapy (ACT), a wide range of theoretical orientations recognize the construct and its importance (Hayes, Wilson, Gifford, Follette, & Strosahl, 1996). Experiential avoidance has been defined as “the phenomenon that occurs when a person is unwilling to remain in contact with particular private experiences (e.g., bodily sensations, emotions, thoughts, memories, behavioral predispositions) and takes steps to alter the form or frequency of these events and the contexts that occasion them” (Hayes et al., 1996, p. 1154). Whereas some forms of experiential avoidance can be healthy, other forms can have negative long-term consequences for the person (e.g., problematic drinking or drug use, negative consequences of IPV perpetration, maintenance of PTSD symptoms over time).

There are several constructs similar to experiential avoidance in the literature. For example, *emotion regulation* refers to “the way in which individuals decrease, increase, or maintain their internal experience and external expression of emotion” (Chervonsky & Hunt, 2017, p. 669). Distress tolerance is another such construct. As stated by Holzhauser, Wemm, and Wulfert (2017), “[s]ubjectively, *distress tolerance* is defined as the capacity to withstand negative psychological states (Simons & Gaher, 2005); behaviorally, it is defined as the ability to persist in goal-directed activity when faced with psychological distress (Daughters et al., 2009)” (pp. 156-157). In addition, the construct of *alexithymia* refers to a difficulty with identifying and describing emotions (Frewen, Dozois, Neufeld, & Lanius, 2008). These constructs have shown high levels of variance overlap with one another in past empirical research (e.g., Iverson, Follette, Pistorello, & Fruzzetti, 2012; Venta, Hart, & Sharp, 2013). For the current study, the construct of experiential avoidance was chosen because it reflects a general motivation to avoid

and reduce negative cognitive and emotional states that fits well with theory and research on the effects of trauma and PTSD.

Theories connecting experiential avoidance and PTSD. Several theories of PTSD consider an avoidance component to be an integral feature of the disorder, a viewpoint that was codified in the DSM-V by specifically requiring at least one avoidance symptom for diagnosis (APA, 2013). For example, *conditioning theory* (Keane, Zimering, & Caddell, 1985) posits that the frequent activation of the fear response in PTSD develops through the association of neutral (conditioned) stimuli (e.g., conversations that relate to the trauma, the sound of an airplane overhead) with the aversive (unconditioned) stimuli of the trauma. This conditioning is maintained through the reduction of distress experienced when a person escapes from or avoids the response produced by the conditioned stimulus. Over time, this leads to the avoidance of both the triggers of fear alarms and the experience of strong emotions (Gillihan et al., 2014).

Emotional processing theory (Foa & Kozak, 1985, 1986) is another theory of PTSD that includes avoidance as a key component. It suggests that PTSD reflects the existence of pathological emotion structures in memory that include emotion-related stimuli, responses, and the meanings attached to them (Gillihan et al., 2014). When a person perceives information represented in these structures, the structures become activated, and for those with PTSD, they become activated across a broader range of situations than for those without PTSD (Gillihan et al., 2014). *Emotional processing theory* suggests that in order to treat PTSD, the emotion structures must become activated, and information discrepant with erroneous associations in the structure must be incorporated into it (Gillihan et al., 2014). This is a primary aim of Prolonged Exposure Therapy for PTSD (Foa, Hembree, & Rothbaum, 2007). Similar to *conditioning theory* (Keane, Zimering, & Caddell, 1985), *emotional processing theory* suggests that the difference

between those who experience natural recovery from traumatic events and those who develop PTSD is the willingness to engage with stimuli that activate these emotion structures and incorporate new information (Gillihan et al., 2014). This is consistent with the fact that the vast majority of people who are exposed to traumatic events experience symptoms of PTSD shortly after the trauma, but these symptoms decrease over time (Riggs, Rothbaum, & Foa, 1995; Rothbaum, Foa, Riggs, Murdock, & Walsh, 1992).

Ehlers and Clark's (2000) *cognitive theory of PTSD* builds off of *emotional processing theory*, but highlights the causal role of threat-related cognitions (e.g., "the world is completely dangerous," "the trauma shows that I am incapable") that are verbally accessible and reportable (Gillihan et al., 2014). In addition, they suggest that fragmented memory of the trauma, reflected in non-linear or poorly elaborated trauma narratives, increases the sense of current threat experienced by those with PTSD (Gillihan et al., 2014). In the *cognitive theory of PTSD*, trauma-related cognitions take primacy over avoidance coping strategies, although, similar to other theories, these strategies are believed to prevent alterations of the underlying memory structures and thus maintain symptoms over time (Gillihan et al., 2014).

Research connecting experiential avoidance and PTSD. In addition to theory, there is a large empirical base highlighting the role of experiential avoidance in PTSD. For example, a study by Marx and Sloan (2005) examined the role of experiential avoidance and peritraumatic dissociation (hypothesized to represent a form of experiential avoidance during the traumatic event) in predicting PTSD symptoms across two time points. They obtained a sample of 185 undergraduates who had experienced one or more traumas meeting PTSD criterion A. Participants completed self-report assessments of PTSD symptoms, experiential avoidance, and peritraumatic dissociation at baseline, and completed a self-report assessment of PTSD

symptoms at time 2 (4 weeks post-baseline) and at time 3 (8 weeks post-baseline). The final time point only included 70 participants randomly selected from the total sample due to resource constraints. Using hierarchical regression analyses, they found that experiential avoidance significantly predicted time 2 PTSD symptoms controlling for time 1 PTSD symptoms. That is, initial experiential avoidance predicted increases in PTSD symptoms across two time points. However, peritraumatic dissociation did not predict PTSD symptoms above and beyond the other variables.

Kumpala, Orcutt, Bardeen, and Varkovitzky (2011) added to this literature with a prospective study of peritraumatic dissociation, experiential avoidance, and PTSD symptoms. This study is unique in that undergraduate women were enrolled in a longitudinal study of sexual revictimization when a campus shooting took place, and so the researchers were able to examine the relationship between these variables before and after a traumatic event occurred. Among a sample of 532 women students, the researchers assessed trauma history (time 1), degree of exposure to the shooting (time 2), PTSD symptoms (times 1, 2, and 3), peritraumatic dissociation (time 2), and experiential avoidance (times 1, 2, and 3). The first assessment took place an average of about seven months before the shooting, the second assessment took place an average of 27 days after the shooting, and the third assessment took place an average of about eight months after the shooting. The researchers conducted path analyses to examine the relationships between changes in experiential avoidance and PTSD symptoms over time. Findings indicated that experiential avoidance before the trauma predicted greater peritraumatic dissociation, reexperiencing symptoms, and dysphoria symptoms at time 2 (about one month post-shooting). Experiential avoidance at time 2 was also predictive of greater dysphoria and hyperarousal symptoms at time 3 (about eight months post-shooting). Furthermore, peritraumatic dissociation

was associated with greater PTSD symptoms across all four clusters at time 2, and indirectly at time 3 via time 2 symptoms. Overall, this study provides important evidence that experiential avoidance both increases vulnerability to and promotes the maintenance of PTSD symptoms over time.

A recent meta-analysis by Seligowski, Lee, Bardeen, and Orcutt (2015) investigated the connection between PTSD symptoms and a range of different emotion regulation strategies, including experiential avoidance. With a sample of 57 studies (20 for experiential avoidance), they estimated average effect sizes for the relationships between PTSD symptoms and emotion regulation variables. Experiential avoidance ($r = .40$) was among the emotion regulation variables most strongly associated with PTSD symptoms, alongside general emotion dysregulation ($r = .53$), rumination ($r = .51$), and thought suppression ($r = .47$). The researchers note that thought suppression (i.e., attempts to suppress one's thoughts) and experiential avoidance have high construct overlap. Additionally, investigation of potential publication bias indicated that approximately 67 studies with an effect size of 0 would be needed to bring the correlation between experiential avoidance and PTSD symptoms down below $r = .10$, suggesting that the existence of this relationship is unlikely to be due to publication bias. Overall, this study summarizes the literature on the connection between experiential avoidance and PTSD symptoms, showing a consistent connection between the two constructs.

Theories on the causation and maintenance of PTSD emphasize the role of avoidance of trauma-related triggers. However, this raises the question: to what degree is experiential avoidance of trauma-related triggers also generalized to non-trauma-related emotional stimuli? A study by Frewen and colleagues (2010) helps address this question. Their sample included 57 women diagnosed with PTSD from the Clinician Administered PTSD Scale (CAPS; Blake et al.,

1995) and a control group of 49 women without history of psychiatric disturbance. Participants engaged in a laboratory task in which they were asked to listen to and imagine themselves in 24 30-second audio scripted vignettes, and were asked to attend to their emotional responsiveness to the scenarios. Half of the scenarios were designed to arouse moderate to strong emotional intensity (with half of these negatively valenced and half positively valenced), and the other half were designed to arouse lower levels of emotional intensity. Additionally, within these groups of scenarios, half emphasized social interactions in order to assess social emotions (e.g., relationship break-up, warm greeting from a friend), and the other half did not involve social interactions (e.g., near drowning, quiet walk on the beach shoreline). Following each scenario, participants were asked to rate their experience of six negative and six positive emotions, as well as rate their desire to avoid negative and positive emotions.

The researchers found that, compared with women in the control group, the women with PTSD reported significantly lower levels of positive emotions in the social and non-social positive scenarios, and significantly higher levels of efforts to avoid positive emotions in these scenarios. Furthermore, they reported significantly higher levels of negative emotions in the social and non-social negative scenarios, as well as significantly higher levels of efforts to avoid negative emotions in social and non-social positive and negative scenarios. Overall, this study indicates that PTSD is associated with efforts to avoid the experience of both positive and negative emotions. As the scenarios did not directly correspond to the trauma, this indicates a general tendency in PTSD to avoid unwanted emotional experiences, rather than being limited to avoidance of specific trauma-related triggers.

The findings by Frewen and colleagues (2010) are bolstered by other, previous studies. For example, with a sample of 61 combat veterans, Roemer, Litz, Orsillo, and Wagner (2001)

found that PTSD was strongly associated with frequency ($r = .58$) and intensity ($r = .70$) of effortful withholding of emotional expression. Similarly, Naifeh, Tull, and Gratz (2012) found with a sample of 62 people entering substance abuse treatment that PTSD symptoms measured via the CAPS were strongly ($r = .58$) associated with a self-report measure assessing general (i.e., not trauma-specific) emotional avoidance. In addition to the fear involved in re-experiencing symptoms, PTSD has been shown to be associated with an increase in a range of negative mood states, including anger, shame, guilt, and disgust (for a review, see McLean & Foa, 2017). Taken together, these studies suggest that PTSD is correlated with an inclination to avoid or escape these negative mood states, even beyond direct reminders of the trauma. This matches clinical observations that people with PTSD often develop the belief that they are incapable of managing their emotions, and that their emotions will cause them to “lose control” if fully experienced (Resick, Monson, & Chard, 2017). The idea that a range of emotions may be avoided in PTSD, even in contexts not directly related to the trauma, is important when considering how experiential avoidance then relates to IPV perpetration.

Theory connecting experiential avoidance and aggression. Gardner and Moore (2008) proposed the *Anger Avoidance Model* (AAM) in order better capture how the avoidance of anger and emotions that underlie it can result in maladaptive reactions such as aggression. As they summarize, a prior conceptualization of clinical anger called the *Cognitive Content Specificity Model* focused on distorted cognitive content as the central feature in anger, consistent with other emotional states (Kassinove & Tafrate, 2002). According to Gardner and Moore (2008), this view suggests that aggressive/violent behavior is a direct result of anger, and thus anger is generally to be avoided. Instead, they suggest that anger is a natural human emotion that is adaptive in many contexts, but the perception of anger as intolerable and subsequent efforts to

avoid it can result in problematic behavioral manifestations of that anger. Specifically, they posit that:

Aggressive/violent behavior is conceptualized as an overt avoidance or escape response and functions to reduce the full experience of anger (and the fear that may have been the initial stimulus for the anger). Consequently, it is negatively reinforced. To expand, overt aggressive/violent behavior serves as an escape from the stimulus that led to the anger response by either eliminating the stimulus itself (i.e., the individual who has “wronged” the angry client withdraws from the situation) or by changing the form of the stimulus (i.e., the individual acts differently toward the angry client). (Gardner & Moore, 2008, p. 907).

In addition to behavioral avoidance (i.e., aggression), Gardner & Moore (2008) suggest that cognitive avoidance of anger can occur in the form of hostile rumination. Rumination has been hypothesized to serve as an avoidance-based emotion regulation strategy, whereby a person dwells on the causes and consequences of events in order to distract from and diminish the full experience of current emotions (Smith & Alloy, 2009). However, rumination is often an ineffective strategy that paradoxically increases the persistence of negative mood states (Smith & Alloy, 2009).

Support for AAM in research on general aggression. Perhaps the most direct support for the AAM comes from a series of studies conducted by Bushman, Baumeister, and Phillips (2001), in which they investigated the affect regulation-motives behind aggression. In the first study in this series, they randomized 200 undergraduate students into four different conditions. All participants were given a vitamin tablet labeled “Bramitol” and were either told that the pill would freeze their mood state for one hour (after a 30 minute delay), or were told that the pill

would have no effect on their mood. Additionally, half of the participants within each group were assigned to read a newspaper article describing the results of a study that either supported or refuted the catharsis theory of aggression (i.e., the belief that aggression reduces feelings of anger). After these experimental manipulations, all participants were asked to write an essay that was then ostensibly graded by a fellow participant who provided high levels of negative feedback. Following this, participants completed a competitive reaction time task with this fictitious fellow participant, in which the person with the slower response time for each trial would receive a blast of noise. Participants had the option to set the decibel and duration of the noise that their opponent would be blasted by, and the combination of these variables was the operationalization of aggression. The researchers found an interaction between pill condition and article condition. Specifically, among participants who read the pro-catharsis theory article, those with allegedly frozen moods exhibited significantly lower aggression than those without frozen moods. The opposite pattern was found for those who read the anti-catharsis theory article; participants with allegedly frozen moods exhibited significantly higher aggression than those without frozen moods. This pattern of findings suggests that when people believe that aggression is going to improve their current mood-state while angry, they are more likely to be aggressive. This supports the prediction from the AAM that people use aggression to avoid experiencing aversive internal states such as anger.

In the second study in this series, Bushman and colleagues (2001) replicated the original procedure, but instead of receiving a pro- or anti-catharsis theory message, participants completed self-report questionnaires that assess tendencies to express anger outwardly (anger-out). The expected interaction was marginally significant, with those high in anger-out showing less aggression when they were told that the pill would freeze their mood. That is, people who

typically express their anger through aggression were less likely to use aggression when they believed it would have no effect on their mood, suggesting that mood-repair is a motivating factor in their aggression. In a third study, students scoring high in anger-out rated the pro-catharsis theory article more favorably than the anti-catharsis theory article, and the opposite was found for students scoring low in anger-out. This finding established the connection between the variables that moderated the effects of the mood-freezing manipulation on aggression in the prior two studies. In the fourth study, the researchers developed an Angry Mood Improvement Inventory and found large correlations between reported anger behaviors and beliefs that these behaviors would repair their mood-states. Finally, the fifth study replicated the procedures of studies 1 and 2 using the Angry Mood Improvement Inventory, randomization to article type, and randomization to pill instructions. This study replicated the previous pattern of findings, with those who believe in the mood-repairing properties of venting anger and those given the pro-catharsis theory article showing lower levels of aggression when they believed that their mood would not change.

Overall, the findings of these studies indicate that people are more prone to use aggression when they believe it will help repair their negative mood state, supporting the idea from the AAM that avoiding the experience of anger is a motivating factor in aggression. A strength of these studies is that they involved several manipulation checks (e.g., participants rated pro- and anti-catharsis articles as equally plausible, pill conditions had an effect on perceived effects of the pill), reducing alternative explanations for their findings. However, a notable limitation of these studies is that they were all conducted with college undergraduates, making the generalizability to other populations unclear. Additionally, the extent to which the

laboratory analogue aggression tasks generalize to more significant forms of aggression in real world settings is unclear.

Research support for the AAM also comes from studies employing a general measure of experiential avoidance. For example, in a study of 225 male undergraduate students, faculty, and staff, Jakupcak, Tull, and Roemer (2005) examined masculine gender norms, fear of emotions, and overt hostility/aggression using self-report questionnaires. At the bivariate level, they found that fear of emotions was positively associated with overt hostility/aggression ($r = .40$) and anger expression ($r = .22$), and found that it was negatively associated with anger control ($r = -.30$). Additionally, fear of emotions predicted all three of these variables in regression analyses while controlling for two assessments of masculinity.

Similarly, Cohn, Jakupcak, Seibert, Hildebrandt, and Zeichner (2010) investigated the relationship between restrictive emotionality, emotion dysregulation, and aggression. The sample included 128 male undergraduate students recruited from the psychology department of a large southeastern U.S. university. Participants completed self-report measures of gender role-related emotional restriction and emotion regulation deficits, and completed a laboratory task designed to measure aggression. In the task, called the Response Choice Aggression Paradigm (RCAP), participants complete a competitive reaction time task wherein they receive and administer electrical shocks following “wins” and “losses” (these were predetermined before the study) against a fictitious opponent. Participants were told that they have the choice to deliver shocks to the opponent regardless of the outcome of each trial, and have the choice of shock intensity. They were also told that the opponent had the same options, and during the trials, the participant is shocked on every “loss.” The outcome measure of aggression in this paradigm is mean shock intensity. Participants that were not deceived by the paradigm were excluded from analyses. The

researchers found that the non-acceptance of emotional responses mediated the relationship between gender role-related emotional restriction and aggression measured in the paradigm. These two studies indicate that a general propensity to avoid emotional states is associated with increased aggression, even when controlling for beliefs about masculinity that contribute to this avoidant tendency. These associations between self-reported avoidance of emotion and aggression support the AAM assertion that aggression serves an avoidant purpose. Limitations of this research include the cross-sectional nature of the data and limited generalization due to a focus on male undergraduate students.

To date, two studies have examined PTSD symptoms, experiential avoidance, and general aggression together. Tull, Jakupcak, Paulson, and Gratz (2007) recruited a sample of 225 male university students, faculty, and staff that had a history of interpersonal violence exposure, and had participants self-report exposure to traumatic events, PTSD symptoms, experiential avoidance, emotional expressivity (i.e., the degree to which one displays their emotions to others), trait anger, and general aggression. The researchers analyzed whether experiential avoidance and emotional inexpressivity mediate the relationship between PTSD symptoms and aggressive behavior. When entered into a single model that controlled for trait anger, results indicated that both experiential avoidance and emotional inexpressivity independently mediated the relationship between PTSD symptoms and aggressive behavior, bringing the contribution of PTSD symptoms below statistical significance. This study tests a hypothesis most similar to that of the current study by examining experiential avoidance as a link between trauma symptoms and aggression toward others. The results provide support for this hypothesis. However, because the self-report measures used in this study asked about general (i.e., not relationship-specific)

experiential avoidance and aggression, generalizability of the findings to experiential avoidance and aggression in relationship contexts is not yet clear.

Dutra and Sadeh (2017) investigated relationships between PTSD symptoms, negative urgency (i.e., vulnerability to give into rash actions in the context of negative affect), experiential avoidance (the researchers framed this in terms of its opposite, called psychological flexibility), and aggression. They measured each of these variables via self-report questionnaires among a sample of 99 veterans exposed to trauma. The researchers found that negative urgency significantly mediated the relationship between veterans' PTSD symptoms and callous aggression, and that experiential avoidance moderated this mediational relationship. Specifically, the relationship between negative urgency and callous aggression was strengthened at higher levels of experiential avoidance. This finding fits with the idea from the AAM that the need to avoid or escape distressing emotions potentiates the connection between vulnerabilities to negative affect-driven impulsive decision-making and aggression. A key limitation of the study is the cross-sectional nature of the data, precluding a better test of the directionality of the associations.

Support for AAM in research on IPV perpetration. Research on IPV specifically supports some ideas from the AAM. First, it indicates that IPV often occurs in the context of intense negative emotions. For example, Babcock, Costa, Green, and Eckhardt (2004) conducted two studies to validate a measure examining the proximal antecedents to partner-violent episodes. In the first study, they had 162 men enrolled in an IPV intervention program complete the Proximal Antecedents to Violent Episode (PAVE) scale, as well as IPV perpetration history and personality measures. They found using principal component analysis with the PAVE that three factors emerged: (1) using violence to control one's partner, (2) using violence out of jealousy,

and (3) using violence following a partner's verbal abuse. At least two of these three antecedents are situations that likely involve intense negative emotion. This assessment showed a significant correlation with the frequency of physical IPV perpetration in the past year. The second study with 110 community couples confirmed these findings and showed trait anger to be associated with using violence to control and using violence following a partner's verbal abuse. Similarly, a review article by Langhinrichsen-Rohling, McCullars, and Misra (2012) examined men's and women's motivations for perpetrating IPV. Their search began with over 7,000 articles, which they narrowed down to 57 included in the final review. They found that 63% of studies assessed IPV in context of anger/expressing negative emotion, and 49% of studies assessed IPV in the context of jealousy (a combination of anger and fear).

Another study by Elkins, Moore, McNulty, Kivisto, and Handsel (2013) investigated the temporal association between proximal anger and IPV perpetration among a sample of 184 men and women in dating relationships. Participants completed an electronic survey daily for a 2-month period. They were asked to report on previous day IPV perpetration as well as affect just prior to having face-to-face contact with their partner. The researchers found that daily angry affect was associated with increased odds of same-day psychological, physical, and sexual IPV. Additionally, they found a quadratic effect for psychological IPV, whereby anger predicted increased odds of psychological IPV from low to midrange levels of anger, and stopped predicting increased odds of psychological IPV at higher levels. While these articles support the idea that IPV often occurs in the context of strong negative emotions (a necessary presumption for the application of the AAM to IPV), they do not explicitly demonstrate that the aggression is an attempt to avoid the experience of the emotion.

Several studies have examined emotional consequences of IPV. For example, Shorey and colleagues (2012) investigated self-reported consequences of psychological aggression in dating relationships among a sample of 115 college women. The researchers generated a list of 44 possible consequences of psychological aggression perpetration, which included changes in emotional state. Participants were instructed to think about the most troubling/distressing verbal disagreement in which they had perpetrated psychological aggression (perpetration of at least one act in the past 6 months was an eligibility criterion) and were asked whether they had experienced each consequence immediately following their use of aggression. They found the following for emotional consequences after aggression: 42.6% felt less angry, 41.7% felt more angry, 31.3% felt less frustrated, 50.9% felt more frustrated, 25.4% felt less irritated, 41.2% felt more irritated, 31.3% felt less upset, 43.8% felt more upset, 17.7% felt less sad, 49.6% felt more sad, 30.1% felt less calm, 36.3% felt more calm, 25.7% felt less stressed, 40.2% felt more stressed, 18.3% felt more powerful, and 23.5% felt less powerful. These findings indicate that a large portion of people in the study reported some benefits of aggression for their mood state, which is consistent with the notion in the AAM that reducing negative mood-states is a motivating factor in aggression. However, people in the study more often reported an increase than a decrease in aversive mood states following aggression, and expectations before using aggression were not assessed.

A qualitative study by Sherrill, Wyngarden, and Bell (2011) investigated both expected and actual consequences of physical IPV among 20 undergraduate women. Each participant completed individual, contextually-based interviews on a specific incident of physical violence toward a dating partner. Responses were transcribed and coded by three reviewers for expected and actual outcomes of IPV. They found that 55% of the sample reported that they expected the

violence would allow them to escape or end an aversive interaction with her partner, and 25% reported that they expected the violence would lead to a change in their own or their partner's emotional state (e.g., would help her calm down). These expectations were largely consistent with outcomes. Similarly, Cornelius, Bell, Wyngarden, and Shorey (2015) conducted a qualitative study to examine consequences of physical IPV among a sample of 25 undergraduate women. Using similar methods to Sherrill and colleagues (2011), they found that 46.7% reported improved emotional state, 46.7% reported a more unpleasant emotional state, 30% reported decreased physical tension, and 13% reported increased physical tension. Together, these studies indicate that many people who perpetrate physical and psychological IPV expect and experience changes in their mood state, consistent with the AAM, although the extent to which these changes are avoidance-based is not examined directly in these studies.

The AAM is also supported by research that has assessed the connection between experiential avoidance and IPV perpetration. In an early study on this topic, Umberson, Williams, and Anderson (2002) tested the hypothesis that violent behavior would be a more likely response to stress among individuals who appraise stress as threatening and repress their emotional response to the stress. The researchers used a case-control design, with 28 men presenting to an IPV intervention program as the case group, and 38 men from the community as the control group. Six subjects from the control group were then reassigned to the case group due to a history of domestic violence. Participants completed self-report questionnaires assessing levels of stress in various areas, perceived threats in employment, financial, and family situations, and a 2-item measure of repressed emotion created by the researchers. They found that reporting high levels of both threat appraisal and repressed emotion was associated with 3.52 times greater odds of being in the IPV group.

Similar to a study by Jakupcak and colleagues (2005), which assessed general aggression, Jakupcak (2003) investigated the relationship between men's fear of emotions and IPV perpetration specifically. A sample of 155 male college students completed self-report assessments of masculine gender role stress, fear of emotions, and IPV perpetration. He found that men's fear of emotions predicted greater IPV perpetration above and beyond the effects of masculine gender role stress and family income.

A study by Reddy, Meis, Polusny, and Compton (2011) examined the relationship between experiential avoidance and IPV perpetration among military couples. With a sample of 49 male National Guard soldiers recently returned from a combat deployment in Iraq and their female partners, they assessed experiential avoidance and IPV perpetration. Using the actor-partner interdependence model (APIM) approach via multilevel modeling, they found that men's experiential avoidance was associated with their own IPV perpetration and victimization. For women, there was a similar trend, but it did not reach significance, and experiential avoidance was not associated with psychological aggression for men or women.

Adding to this literature, Shorey and colleagues (2014) also investigated the association between experiential avoidance and IPV perpetration. A sample of 109 male undergraduate students provided self-report data on experiential avoidance, alcohol use, relationship satisfaction and physical, psychological, and sexual IPV perpetration. They found that experiential avoidance was associated at the bivariate level with psychological ($r = .42$), physical ($r = .24$), and sexual ($r = .36$) IPV perpetration. Furthermore, results indicated that experiential avoidance significantly predicted psychological and sexual IPV when controlling for age, relationship satisfaction, and alcohol use.

Unlike the previous studies, which examined self-reported IPV behaviors, Zamir, Gewirtz, Labella, DeGarmo, and Snyder (2017) investigated the relationship between experiential avoidance and observed behaviors during conflict discussions. Their sample included 228 married or cohabitating heterosexual couples in which the male partner had recently deployed to Iraq or Afghanistan. The researchers had participants complete written questionnaires assessing experiential avoidance and relationship quality, and had couples attempt to solve an area of disagreement in a five-minute videotaped discussion. A range of areas of conflict were assessed, and the most severe area of conflict was selected for discussion. Videotapes were coded for both positive (e.g., humor, affection, empathy, interest, agreement, positive affect, positive involvement, and engaging body posture) and negative (e.g., verbal aggression, withdrawal, criticism, contempt, negative tone, and interruptions) communication behaviors. In APIM analyses, the researchers found that experiential avoidance was associated with greater negative communication observed during the conflict discussions for men, but not for women. Overall, these studies indicate that, particularly for men, a greater tendency to avoid aversive internal experiences is associated with increased frequency of IPV perpetration. This supports the AAM.

Summary and Limitations of Prior Research

To summarize, prior research has shown that trauma and PTSD confer risk for IPV perpetration, and studies on this connection have largely focused on biases in early stages of social information processing (e.g., hostile interpretations of others' intentions, facilitated processing of shame cues; LaMotte et al., 2016; Marshall et al., 2011; Sippel & Marshall, 2011; Taft et al., 2015). Additionally, theory and research indicate that trauma and PTSD have profound emotional consequences that have not yet been investigated as part of the social

information processing model. Specifically, PTSD involves a strong inclination to avoid both traumatic reminders as well as general emotional states that do not have a direct relation to the trauma (Frewen et al., 2010; Gillihan et al., 2014; Marx & Sloan, 2005; Kumpala et al., 2011; Seligowski et al., 2015). The avoidance of negative emotional states such as anger has been hypothesized to lead to aggression when aggression is viewed as an effective way to reduce negative emotional states (Gardner & Moore, 2008), and some evidence supports this (e.g., Bushman et al., 2001; Tull et al., 2007; Shorey et al., 2014). Thus, someone who experiences PTSD symptoms due to trauma may become aggressive with their partner because of a stronger drive to quickly reduce or avoid negative emotional states. This can be conceptualized as a deficit at the *goals clarification* stage of the SIP Model (Crick & Dodge, 1994), as the goal of immediately reducing or avoiding negative emotional states takes primacy over conflicting longer-term goals such as maintaining a healthy relationship and being evaluated positively by others.

There are several limitations of past research to be addressed in this study. First, no prior study has examined experiential avoidance as a mediating variable between PTSD symptoms and IPV perpetration. The current study seeks to address this by examining this relationship directly. In addition, most prior studies of experiential avoidance, PTSD symptoms, and aggression measured experiential avoidance using the Acceptance and Action Questionnaire (AAQ; Hayes et al., 2004) and its revision (AAQ-II; Bond et al., 2011). This measure has been shown to have suboptimal discriminant validity with measures of neuroticism/negative affect and suboptimal convergent validity with other constructs at the foundation of third-wave behavior therapies (Rocheft, Baldwin, & Chmielewski, 2017). The current study will address this by including a more comprehensive self-report assessment of general experiential avoidance, called the

Multidimensional Measure of Experiential Avoidance (MEAQ; Gámez, Chmielewski, Kotov, Ruggero, & Watson, 2011). However, because all reviewed studies on this topic have relied on self-report questionnaires of general experiential avoidance, the current study will also assess this construct within the context of situations that are directly relevant to intimate relationship discord and IPV perpetration. Furthermore, because past research has indicated that anticipated change in emotion, rather than simply current emotional state, guides behavior (DeWall, Baumeister, Chester, & Bushman, 2016; Bushman et al., 2001), and because no prior study has assessed anticipated change in emotions from aggression/abuse perpetration in an intimate relationship context, the current study will assess this. Finally, a limitation of past research is that the assessment of psychological IPV has relied on the Revised Conflict Tactics Scales (CTS2; Straus, Hamby, Boney-McCoy, & Sugarman, 1996). The current study will utilize the Multidimensional Measure of Emotional Abuse (MMEA; Murphy & Hoover, 1999), which captures a better picture of emotionally abusive behaviors such as restricting access to friends/family members and refusing to talk about an issue important to one's partner.

Current Study

This study contributes to the literature on the connection between PTSD and IPV perpetration by examining experiential avoidance as a mediator of this relationship among men presenting to an IPV intervention program. In it, I measured several constructs through interview adaptations of self-report questionnaires, including trauma history, PTSD symptoms, experiential avoidance, physical assault perpetration, sexual coercion perpetration, and emotional abuse perpetration. In addition, participants listened to a series of relationship situations designed to induce negative mood states and responded to questions about them. After listening to each situation, participants rated the intensity of several negative mood states, rated their inclination to

get rid of the emotions/experience difficulty tolerating the emotions (i.e., an assessment of relationship-specific experiential avoidance), rated several behavioral responses on their anticipated ability to reduce negative mood states, and rated the likelihood that the participant would engage in each response in the scenario. Half of these responses are characterized by aggressive/abusive behavior, and the other half are not. These procedures were used to test the following hypotheses:

- 1) Higher levels of lifetime trauma exposure and higher PTSD symptoms will be associated at the bivariate level with increased negative mood states in response to distressing hypothetical relationship scenarios.
- 2) Higher levels of lifetime trauma exposure and higher PTSD symptoms will be associated at the bivariate level with greater experiential avoidance, measured both via a trait measure and via avoidance-related responses to hypothetical relationship scenarios.
- 3) Experiential avoidance, measured both via a trait measure and via avoidance-related responses to hypothetical relationship scenarios, will mediate the relationship between PTSD symptoms and IPV perpetration (including physical assault, sexual coercion, and emotional abuse).
- 4) Participants will show a general tendency to rate aggressive/abusive responses to the relationship scenarios as more likely to reduce negative mood states, compared with non-aggressive/non-abusive responses.
- 5) Beliefs that aggressive/abusive responses will repair one's mood state will moderate the mediating effect of experiential avoidance between PTSD symptoms and IPV perpetration. Specifically, I expect that the relationship between experiential avoidance

and IPV perpetration will be stronger for those who hold stronger beliefs in the mood-repairing properties of aggressive/abusive responses.

- 6) There will be a positive association between anticipated reduction in negative mood states and likelihood of engaging in each response to the relationship scenarios.
- 7) The association in Hypothesis 6 will be moderated by PTSD symptoms and experiential avoidance, such that it will be strengthened at higher levels of these variables.

Chapter 2: Pilot Study

Method

Participants and Procedure. Prior to the primary dissertation study, I conducted a pilot study of the Experiential Avoidance in Relationship Situations (EARS) measure. The purpose of this initial study was to examine properties of the measure and obtain participant feedback for making alterations to the measure for the main study. A sample of 5 participants was recruited from the HopeWorks New Behaviors Program, an Abuse Intervention Program in Howard County, Maryland. Potential participants were told about the study during the intake and group sessions. Two participants were recruited from the intake process, and three were recruited from group therapy. Participants were paid \$15 for a 20- to 30-minute interview. Demographic information was not collected on participants in the pilot study. However, it is important to note that the pilot sample was heterogeneous with respect to race and age.

Measures. The EARS is a novel assessment designed for the main dissertation study to measure experiential avoidance in the context of intimate relationship disputes. The assessment involves having participants imagine themselves in five different relationship situations that are designed to provoke negative emotions: 1) you witness your partner flirting with an attractive stranger at a social gathering; 2) you tell your partner personal information and find out that she has shared with it with others; 3) your partner wants to go to a singles club with her friend who does not like you; 4) your partner isn't ready to leave for an appointment on time and disagrees with your assessment of urgency; and 5) your partner insults your handiwork around the house. Appendix A presents the initial version of the measure, and Appendix B presents the revised version of the measure based on feedback during the pilot study. Situations 1, 2, and 4 were adapted from the Problematic Marital Situation Vignettes originally developed by Holtzworth-

Munroe and Anglin (1991) to assess social information processing deficits among IPV offenders. Adaptations involved slight wording changes to increase clarity, improve descriptiveness, and remove mention of emotions experienced to avoid influencing participants' responses regarding emotions. Situations 3 and 5 were novel and created for the measure.

After hearing each situation, participants were asked a series of questions. In order to assess the perceived realism of the situations and clarity of wording, participants were first asked: 1) to rate how realistic the story seemed to them on a scale of 0 (*not at all*) to 10 (*extremely*); 2) to rate how much they were able to imagine themselves in the situation described on a scale of 0 (*not at all*) to 10 (*extremely*); and 3) the question "Was there anything about the situation that was unclear, didn't make sense or could be said in a better way?"

Next, participants were asked to "rate how much you would experience each emotion in the imagined situation" on a Likert scale from 0 (*not at all*) to 10 (*extremely*): Anger, Jealousy, Sadness, and Anxiety. In this pilot study, participants were also asked the open-ended question, "What other emotions might you be feeling?" in order to determine whether there were other emotions that should be included in the measure.

In order to assess experiential avoidance in the relationship situations, participants were instructed to "rate how much you would have the following reactions to these emotions": 1) "I would want to get rid of these emotions as soon as possible," and 2) "I would accept that it is okay for me to have these emotions." Response options are on a Likert scale ranging from 0 (*not at all*) to 10 (*completely*). It was expected that these two items would be negatively associated, and that the second item would be reverse scored before combining these items across the five situations to create a total experiential avoidance score.

Next, participants were asked to “rate how much you think each action would help get rid of the emotions that you feel in the situation” on a Likert scale from 0 (*not at all*) to 10 (*completely*). There are six responses to each situation, with three representing aggressive/abusive actions, and three representing non-aggressive/non-abusive actions. For example, for the situation in which the participant imagines witnessing his partner flirting with another man, responses are: “Telling myself ‘it’s no big deal’” (not aggressive/abusive), “Confronting my partner and/or the other person for flirting” (aggressive/abusive), “Distracting myself with an interesting conversation or game” (not aggressive/abusive), “Telling my partner ‘it’s time to go’ and making us both leave the party” (aggressive/abusive), “Having more to drink or using other substances to put it out of my mind” (not aggressive/abusive), and “Start flirting with someone attractive, knowing that my partner might see” (aggressive/abusive). Many of the non-aggressive/non-abusive responses reflect skills from cognitive behavioral treatment for IPV (Murphy & Scott, 1996), such as cognitive reframing and emotional expression. To verify which response options should be deemed as aggressive/abusive, five graduate students with clinical experience in the area of relationship abuse were asked to identify the three aggressive/abusive responses for each situation, and there was 100% agreement between raters.

After these questions, participants were asked to “rate how likely you would be to do each of the responses if this situation happened to you,” with the same responses provided as for the previous section. In the pilot study, participants were then asked “Any other options for responses that you think should be listed?” and “Was there anything about the responses or questions that was unclear, didn’t make sense or could be said in a better way?” These were asked to determine if there were any responses that participants consistently felt were missing or

were confusingly worded. Finally, at the end of the measure, participants were asked the open-ended question, “Any other thoughts or comments about the measure?”

Results

Relationship Situations: Clarity, Realism, and Emotional Responses. Pilot study data were analyzed to examine the clarity and realism of the relationship situations, as well as participants’ emotional responses to the situations. For all situations, none of the five participants indicated that there was “anything about the situation that was unclear, didn’t make sense or could be said in a better way.” Descriptive statistics for the questions about realism are presented in Table 1. For the question “How realistic does this story seem to you?” means ranged from 7.0 to 8.8. Similarly, for the question “How much were you able to imagine yourself in the situation described?” means ranged from 6.8 to 8.6. These suggest that overall, participants found the relationship situations to be realistic and were adequately able to picture themselves in the situations. No participants gave a response of 0 for either of these questions. As a result, no situation wordings were changed for the final version of the EARS.

Table 1 also displays descriptive statistics for participants’ emotional responses to each situation. Results suggest that participants generally reported high levels of emotional responding to the situations. Levels of each emotion also appeared to differ across the different situations. Anger was the highest reported emotion for Situations 2, 4, and 5, Jealousy was the highest reported emotion for Situation 1, and Anxiety was the highest reported emotion for Situation 3. All participants endorsed at least one emotion for each relationship situation. When asked what other emotions they might be feeling, participants gave a range of responses including: Confusion, Irritation, Frustration, Annoyance, Surprise, Hurt, Nervousness, Upset, Embarrassment, Curiosity, and Disrespect. Several of these emotions represent aspects of

emotions that were already listed (e.g., Irritation, Frustration, and Annoyance fit under the umbrella of Anger) and other emotions reported did not have a clear negative valence (e.g., Surprise, Curiosity). None of other emotions were listed consistently across participants, and so, to keep the measure brief, no other emotions were added to the revised version of the EARS.

Table 1

Pilot Study: EARS Situation Clarity and Emotional Responding.

Items	Situation 1 Mean (SD)	Situation 2 Mean (SD)	Situation 3 Mean (SD)	Situation 4 Mean (SD)	Situation 5 Mean (SD)
How realistic does this story seem to you?	8.2 (3.0)	7.0 (2.5)	8.4 (1.5)	8.8. (2.2)	8.4 (2.1)
How much were you able to imagine yourself in the situation described?	8.6 (1.3)	8.2 (3.5)	8.6 (1.3)	8.2 (3.5)	6.8 (2.8)
Emotional Responding:					
Anger	6.6 (3.5)	7.6 (2.3)	3.8 (3.5)	6.0 (3.4)	6.4 (2.3)
Jealousy	8.2 (2.2)	0.0 (0.0)	4.4 (3.2)	0.0 (0.0)	2.0 (4.5)
Sadness	2.4 (4.3)	6.2 (3.8)	1.0 (1.2)	0.6 (1.3)	3.0 (4.5)
Anxiety	4.2 (3.9)	4.2 (3.2)	5.8 (3.8)	4.6 (4.2)	2.0 (2.7)

Experiential Avoidance Questions. Descriptive statistics for the experiential avoidance questions are presented in Table 2. Means for the item “I would want to get rid of these emotions as soon as possible” demonstrated that participants generally endorsed a high need to reduce their negative emotions across situations. Contrary to expectations, endorsement of the item “I would accept that it is okay for me to have these emotions” was similarly high. The correlation between these two items across relationship situations for the first 3 participants was .38,

indicating that the items were not relating to one another as intended. As a result, this second item was changed to “It would be difficult for me to tolerate these feelings for more than a short time.” The correlation between the updated items across relationship situations for the final 2 participants was .91, indicating high shared variance between the items.

Table 2

Pilot Study: Experiential Avoidance Questions.

Items	Situation 1 Mean (SD)	Situation 2 Mean (SD)	Situation 3 Mean (SD)	Situation 4 Mean (SD)	Situation 5 Mean (SD)
I would want to get rid of these emotions as soon as possible ($n = 5$)	7.8 (2.2)	7.6 (2.9)	4.6 (4.4)	6.6 (4.4)	4.2 (3.9)
I would accept that it is okay for me to have these emotions ($n = 3$)	9.0 (1.7)	7.7 (2.5)	8.7 (2.3)	10.0 (0.0)	6.3 (4.0)
It would be difficult for me to tolerate these feelings for more than a short time ($n = 2$)	9.0 (0.0)	6.0 (5.7)	5.0 (7.1)	5.0 (7.1)	1.0 (1.4)

Note. The third item was substituted in for the second item for the last two participants in the pilot study.

Responses to the Relationship Situations. Descriptive statistics for the anticipated reduction in negative emotion for each response and perceived likelihood of engaging in each response are presented in Tables 3 through 7. Overall, there were a wide variety of means for the different responses, indicating that participants made distinctions between responses with respect to their perceived ability to reduce negative emotions and the perceived likelihood of engaging in the response. Participants commonly endorsed both aggressive responses (e.g., “Confronting my partner and/or the other person for flirting” had a mean of 8.0 for anticipated reduction in

negative emotion) and non-aggressive responses to the situations (e.g., “Telling myself ‘I should trust my partner to do the right thing, even if she goes to a singles club with her friend’” had a mean of 7.8 for anticipated reduction in negative emotion). The only response to receive no endorsements from any participants was “physically pushing my partner away from me” in Situations 2 and 5.

Table 3

Pilot Study: EARS Anticipated Reduction in Emotion and Perceived Likelihood of Response for Situation 1: Partner is Flirting with a Stranger.

Items	Anticipated Reduction in Emotion Mean (SD)	Perceived Likelihood of Response Mean (SD)
1: Telling self “It’s no big deal”	2.4 (2.9)	0.8 (1.1)
2: Confronting partner/other person	8.0 (2.1)	8.4 (2.3)
3: Distracting self with conversation/game	2.6 (3.3)	1.6 (3.6)
4: Forcing partner to leave party	7.4 (2.5)	7.8 (3.5)
5: Using substances to cope	1.2 (2.2)	1.2 (2.2)
6: Start flirting with someone else	2.2 (4.4)	2.0 (4.5)

Note. Responses categorized as aggressive/abusive are bolded.

Table 4

Pilot Study: EARS Anticipated Reduction in Emotion and Perceived Likelihood of Response for Situation 2: Partner Tells Others Your Private Information.

Items	Anticipated Reduction in Emotion Mean (SD)	Perceived Likelihood of Response Mean (SD)
1: Telling self “It’s no big deal”	2.2 (2.2)	2.6 (2.5)
2: Raising voice with partner	2.4 (3.0)	3.0 (3.0)
3: Taking several deep calming breaths	6.2 (3.9)	6.6 (4.2)
4: Physically pushing partner away	0.0 (0.0)	0.0 (0.0)
5: Calmly expressing hurt feelings	9.4 (0.9)	8.4 (2.1)
6: Insulting partner because of her actions / Threatening to tell partner’s secrets ^a.	2.2 (3.2)	2.8 (4.1)

Note. Responses categorized as aggressive/abusive are bolded.

^a. Item wording was altered for the final two participants

Table 5

Pilot Study: EARS Anticipated Reduction in Emotion and Perceived Likelihood of Response for Situation 3: Partner Invited to Singles Club by Friend.

Items	Anticipated Reduction in Emotion Mean (SD)	Perceived Likelihood of Response Mean (SD)
1: Forbidding partner from going	5.2 (3.3)	4.0 (4.3)
2: Telling self to trust partner	7.8 (1.3)	7.8 (1.6)
3: Asking partner about their plans for the night	7.8 (1.9)	6.8 (4.0)
4: Threatening to break up if she goes	1.0 (2.2)	1.0 (2.2)
5: Calmly expressing concerns	9.4 (0.9)	8.6 (1.1)
6: Lying about already having plans for us	0.6 (1.3)	0.0 (0.0)

Note. Responses categorized as aggressive/abusive are bolded.

Table 6

Pilot Study: EARS Anticipated Reduction in Emotion and Perceived Likelihood of Response for

Situation 4: Partner Not Ready in Time for Shared Appointment.

Items	Anticipated Reduction in Emotion Mean (SD)	Perceived Likelihood of Response Mean (SD)
1: Telling self “if we’re late, she’ll apologize and trust me next time”	5.6 (4.8)	5.6 (4.8)
2: Yelling back at partner	2.4 (3.9)	3.0 (3.1)
3: Taking several deep calming breaths	5.4 (3.6)	3.6 (3.8)
4: Leaving for the appointment without her	4.0 (4.2)	1.6 (2.3)
5: Calmly asking when she thinks is time to leave	6.2 (4.5)	7.2 (2.6)
6: Insulting partner because of her actions / Insulting partner’s sense of time ^a.	3.2 (4.1)	4.0 (5.5)

Note. Responses categorized as aggressive/abusive are bolded.

^a. Item wording was altered for the final two participants

Table 7

Pilot Study: EARS Anticipated Reduction in Emotion and Perceived Likelihood of Response for Situation 5: Partner Insults Your Handiwork.

Items	Anticipated Reduction in Emotion Mean (SD)	Perceived Likelihood of Response Mean (SD)
1: Telling self “she must be upset/worried”	6.0 (3.8)	6.6 (3.9)
2: Raising voice with partner	2.2 (2.3)	2.4 (2.5)
3: Calmly expressing hurt feelings	8.0 (3.5)	7.8 (2.3)
4: Physically pushing partner away	0.0 (0.0)	0.0 (0.0)
5: Removing oneself to “cool off” for a while	6.2 (3.8)	6.2 (3.3)
6: Insulting partner because of her actions / Making sarcastic remark ^a.	2.8 (4.4)	3.6 (5.0)

Note. Responses categorized as aggressive/abusive are bolded.

^a. Item wording was altered for the final two participants

Participants also listed responses that they thought should be added to the measure. The only response that was reported by two participants was, for Situation 1 (partner is flirting with a stranger), leaving the social gathering. This was ultimately not added to the response list because it could either be considered abusive or non-abusive depending on more context (e.g., leaving to cool off for a while versus stranding the partner at the party). One participant’s feedback about responses that led to alterations in the measure was to make the item “insulting my partner because of her actions” in Situations 2, 4, and 5, more specific. These were changed for the final two pilot participants. In Situation 2, it was changed to “Saying to my partner ‘Next time, I am going to tell my friends all of *your* secrets.’” Doing so increased the mean endorsement of anticipated reduction in negative emotion from 0.0 from the first three participants to 5.5 from the final two. In Situation 4, it was changed to “Telling my partner ‘you have a terrible sense of

time' or something similar," which increased the mean from 0.7 to 6.0. In Situation 5, it was changed to "Saying to my partner, 'Well, if you're so handy, why don't you fix it?' or something similar," which increased the mean from 0.0 to 6.0. Consistent with the participant's feedback, making these items more specific appeared to increase endorsement.

Summary. The pilot study indicated that participants generally found the relationship situations and responses to be realistic and to induce a range of negative emotions that they would want to immediately get rid of. They reported that a range of aggressive/abusive and non-aggressive-non-abusive responses would help get rid of their negative emotions, and that they were likely to engage in these behaviors. Pilot testing additionally revealed that the original second item of the experiential avoidance section of the measure was not performing as expected, and was exchanged for an item that showed a stronger correlation with the first experiential avoidance item. Additionally, participant feedback was incorporated to make three situation responses more specific, which appeared to increase endorsement. The revised version of the EARS was then used in the main dissertation study.

Chapter 3: Method

Participants

Potential participants were recruited from the House of Ruth Gateway Project, an AIP located in Baltimore, Maryland. Of the 116 potential participants who indicated initial interest in the study and provided contact information, 22 did not respond to follow up communication or could not be reached, 4 were contacted and indicated that they were no longer interested in participating, 3 had a schedule that precluded participation, and 13 canceled or did not show up to one or more scheduled appointments and did not reschedule. The final sample included 74 men.

Sample demographic characteristics are provided in Table 8. The sample primarily identified as Black/African American and heterosexual. Regarding relationship status, 51.4% were currently in a relationship, and an additional 16.2% reported that their relationship had ended within the prior six months.

Table 8

Sample Demographic Characteristics.

Variable	n (%)	Mean (SD)
Age (in years)	--	32.6 (9.3)
Race/Ethnicity ^a		
Black/African American	64 (86.5%)	--
White/European American	6 (8.1%)	--
Asian American	2 (2.7%)	--
Hispanic/Latino American	0 (0.0%)	--
American Indian/Alaskan Native	0 (0.0%)	--
Hawaiian/Pacific Islander	0 (0.0%)	--
Other Race/Ethnicity	3 (4.1%)	--
Formal Education (in years)	--	12.0 (1.5)
Sexual Orientation		
Heterosexual	73 (98.6%)	--
Homosexual	0 (0.0%)	--
Bisexual/Pansexual	0 (0.0%)	--
Asexual	1 (1.4%)	--
Monthly Income	45 (60.8%) ^b	\$883.32 (\$1121.11)
Currently in Relationship	38 (51.4%)	--
Current Relationship Length (in months) ^c	--	44.5 (46.3)
Months Since Last Relationship Ended ^d	--	21.6 (32.6)

^a. Racial/ethnic categories were not mutually exclusive

^b. Represents *n* and percentage that reported any monthly income

^c. Calculated only among participants currently in a relationship (*n* = 38)

^d. Calculated only among participants not currently in a relationship (*n* = 36)

Procedures

All procedures were approved by the Institutional Review Board of the University of Maryland, Baltimore County. In order to reflect a clinical sample of men at the outset of an AIP, potential participants were recruited from Orientation sessions and from Stage One groups, where clients spend the first four to six of their 28 sessions. In total, 55 (74.3%) participants were recruited from Orientation, and 19 (25.7%) were recruited from Stage One. All potential participants were informed during recruitment that being in the study was optional and did not affect their standing in the program in any way. Those interested in the study were asked to write their name and phone number for follow up contact to schedule the study session.

Participants provided consent to be in the study and were informed that their answers would not be shared with the staff at the AIP. Study sessions took approximately 45 to 60 minutes, and participants were compensated with \$25. Based on the expectation that some participants would experience reading difficulties, all questions were asked in an interview format. All data were collected on-site at the AIP in a private room to ensure confidentiality, and all study interviews were conducted by the author. Participants completed each assessment in the following order: demographic information, Traumatic Events Questionnaire, PTSD Symptom Checklist-5, Experiential Avoidance in Relationship Situations, Multidimensional Experiential Avoidance Questionnaire, Revised Conflict Tactics Scales Physical Assault and Sexual Coercion scales, and Brief Multidimensional Measure of Emotional Abuse. Finally, participants were debriefed, assessed for any adverse reactions, and paid for participation.

Measures

Traumatic Events Questionnaire (TEQ; Vrana & Lauterbach, 1994). The TEQ is an 11-item assessment of exposure to traumatic events. Participants indicate whether or not they

have experienced 9 different categories of traumatic events: serious industrial/farm/car accident or large fire/explosion, natural disasters, violent crime victimization, childhood physical/sexual abuse, adulthood unwanted sexual experiences involving threat or force, relationship abuse victimization, witnessing the death or serious injury of others, being in danger of serious injury or death, and receiving news of mutilation, serious injury, or violent/unexpected death of someone close. The tenth and eleventh items ask about the experience of any other very traumatic event not covered in the prior items, and any other traumatic events that the person is not willing to describe. This study used a modified version of the TEQ that disaggregates childhood physical and sexual abuse into two items, and includes an additional item asking about childhood witnessing of parental abuse, considering the large research base demonstrating the relevance of this type of trauma for this population (e.g., Delsol & Margolin, 2004).

For each item, participants were asked whether the trauma had occurred once, twice, or three or more times. Additional questions about the level of injury, life threat, and traumatization that appear on the TEQ were not asked in this study in order to shorten the assessment and because these variables are not directly relevant to the research questions of interest. Finally, participants were asked to indicate the type of trauma that caused them the most distress, as well as their age when it began and ended. This was used as a reference for completing the assessment of PTSD symptoms. The full measure is displayed in Appendix C. Additionally, the total number of traumatic events endorsed was calculated by summing the number of occurrences for each item (i.e., *never* = 0, *once* = 1, *twice* = 2, and *three or more* = 3). This scoring method has been found to correlate highly (r 's ranging from .80 to .92) with other scoring methods (e.g., number of trauma categories endorsed) in past research (LaMotte, 2016).

Psychometric properties of the TEQ have been established in prior studies. For example, among a sample of 51 students, Lauterbach and Vrana (1996) found excellent two-week test-retest validity, with strong correlations for overall number of traumas reported ($r = .91$) and specific traumatic events (between $r = .72$ for life-threatening situations to $r = 1.0$ for child abuse). Additionally, Vrana and Lauterbach (1994) found that college students who reported exposure to one or more traumatic events on the TEQ had significantly higher depression, anxiety, and PTSD symptoms than did college students without trauma exposure. Furthermore, the number of traumas reported and its interaction with participant gender predicted 15% of the variance in scores on the *Impact of Event Scale* (Horowitz, Wilner, & Alvarez, 1979), a measure of trauma-related distress. Additionally, past research using this measure in clinical samples of IPV offenders has found it to have moderate to large associations with PTSD symptoms (LaMotte & Murphy, 2017; Miles-McLean, LaMotte, Williams, & Murphy, 2019). Lipschitz and colleagues (1996) found high levels of agreement ($\kappa = .83$) between trauma endorsement on the TEQ assessed as a written questionnaire and face-to-face interview.

PTSD Symptom Checklist-5 (PCL-5; Weathers, Litz et al., 2013). The PCL-5 is a version of the self-report questionnaire most commonly used to assess PTSD symptoms, revised to match the updated PTSD criteria in the DSM-5 (APA, 2013). The measure includes 20 items and asks respondents to rate how much they have been bothered by each symptom in the past month on a Likert scale from 0 (*Not at all*) to 4 (*Extremely*). Participants were asked to answer with regard to the traumatic experience from the TEQ that they reported was most distressing. Example items include “repeated, disturbing, and unwanted memories of the stressful experience,” “having strong negative beliefs about yourself, other people, or the world,” and

“being ‘superalert’ or watchful or on guard.” The full measure is displayed in Appendix D. Item scores were summed to create a total PTSD symptom severity score.

Past research supports the psychometric properties of the PCL-5. For example, Blevins, Weathers, Davis, Witte, and Domino (2015) evaluated the measure in two samples of trauma-exposed college students. With the first sample ($n = 278$), they found high internal consistency ($\alpha = .94$), one-week test-retest reliability ($r = .82$), convergent validity via large significant correlations with other PTSD symptom measures ($r = .84-.85$), and divergent validity via less strong correlations with depression ($r = .60$), Antisocial Personality Features ($r = .39$), and Mania ($r = .31$), as measured on the Personality Assessment Inventory (PAI; Morey, 1991, 2007). The researchers replicated these findings with their second sample ($n = 558$), albeit not including test-retest reliability. Another study by Bovin and colleagues (2016) examined the psychometric properties of the PCL-5 among U.S. veterans. They found strong one-month test-retest reliability ($r = .84$), convergent validity via large correlations with the prior version of the PCL and other mental health concerns with similar features (e.g., generalized anxiety disorder), and discriminant validity via small correlations with alcohol abuse and psychopathy. Additionally, among a subset of participants, they used signal detection analyses to identify scores of 31-33 as being maximally efficient at predicting a positive diagnosis using the Clinician Administered PTSD Scale for the DSM-5 (CAPS-5; Weathers, Blake, et al., 2013). These studies support the psychometric properties of the measure. Research among clinical samples of IPV offenders also suggests utility of the PCL among this population, with past studies indicating excellent internal consistency, associations with abusive behavior, and probable PTSD diagnosis at higher rates than the general population (LaMotte et al., 2018;

Maguire et al., 2015; Semiatin et al., 2017; Miles-McLean et al., 2019). Coefficient alpha was .91 for the PCL-5 in the current sample, indicating excellent reliability.

Experiential Avoidance in Relationship Situations (EARS). The EARS is an assessment designed for the current study to measure experiential avoidance in the context of intimate relationship disputes. The full measure used in the current study is presented in Appendix B, and details about the development of the measure are presented in Chapter 2. The assessment involves having participants imagine themselves in five different relationship situations that are designed to provoke negative emotions: 1) you witness your partner flirting with an attractive stranger at a social gathering; 2) you tell your partner personal information and find out that she has shared it with others; 3) your partner wants to go to a singles club with her friend who does not like you; 4) your partner isn't ready to leave for an appointment on time and disagrees with your assessment of urgency; and 5) your partner insults your handiwork around the house. To standardize administration, an audiotope of a narrator (the study author) reading the situations was played for the participant, and all questions were presented in an interview format.

Prior to the first situation, participants were read the following instructions: "This activity involves listening to different relationship situations and answering questions about them. As best as you are able, please imagine yourself in the situation being described. You will be asked questions about your emotions in the situations and different possible responses. There are no right or wrong answers, please just try to answer as honestly as possible." After hearing each situation, participants were asked to "rate how much you would experience each emotion in the imagined scenario" on a Likert scale from 0 (*not at all*) to 10 (*extremely*): Anger, Jealousy, Sadness, and Anxiety. Scores for each emotion were first summed across the five scenarios to

create a total score for that emotion. Total scores for Anger, Jealousy, Sadness, and Anxiety were then summed to create an EARS Total Negative Emotion score. Participants were then instructed to “rate how much you would have the following reactions to these emotions” for two items: “I would want to get rid of these emotions as soon as possible,” and “It would be difficult for me to tolerate these feelings for more than a short time.” Response options are on a Likert scale ranging from 0 (*not at all*) to 10 (*completely*). Responses for these two items were averaged across situations to create a total score for experiential avoidance in relationship situations. Coefficient alpha for this scale was .80, indicating good reliability.

Next, participants were asked to “rate how much you think each action would help get rid of the emotions that you feel in the scenario” on a Likert scale from 0 (*not at all*) to 10 (*completely*). There are six responses to each scenario, with three representing aggressive/abusive actions, and three representing non-aggressive/non-abusive actions. The mean across all items measuring anticipated reduction in emotions from aggressive/abusive actions reflect participant beliefs that aggression/abuse will help repair one’s mood state. Coefficient alpha for this scale was .84, indicating good reliability. Similarly, the mean across all items representing anticipated reduction in emotions from non-aggressive/non-abusive actions represented participant beliefs that non-aggressive/non-abusive actions will help repair one’s mood state. Coefficient alpha for this scale was .73, indicating acceptable reliability.

After these questions, participants were asked to “rate how likely you would be to do each of the responses if this scenario happened to you,” with the same responses provided as for the previous section. Coefficient alpha was .87 and .76 for likelihood of engaging in aggressive/abusive and non-aggressive/non-abusive actions, respectively. Lastly, participants were instructed, “Think about things that you have experienced in relationships. How realistic

does this story seem to you? On a scale from 0 to 10, where 0 is totally unrealistic and 10 is extremely realistic.” This item is included to provide evidence of the ecological validity of the scenarios.

Preliminary validity data is presented from the pilot study of this measure in Chapter 2. Additionally, the creators of some of the original vignettes adapted for this study reported that, based on piloting, the scenarios were considered realistic, viewed as somewhat difficult and uncomfortable to handle, and generated a variety of responses among men in relationships (Holtzworth-Munroe & Anglin, 1991). Past studies using these vignettes have found that differences in responses are associated with IPV perpetration (Anglin & Holtzworth-Munroe, 1997; Holtzworth-Munroe & Anglin, 1991), albeit with different variables derived from the responses than those of the this study. Another question with regard to validity is the degree to which participants can report their anticipated emotions and anticipated reactions to these emotions. Prior studies using similar procedures in other areas of research have found that participants’ reports of anticipated emotion predict other variables of interest. For example, van der Schalk, Kuppens, Bruder, and Manstead (2015) found that observing another person’s emotions after their decision of how to allocate resources affected one’s own resource allocation decisions, and this was mediated by one’s anticipated emotions. Similarly, a study by Carrera, Caballero, and Muñoz (2012) found that undergraduate students’ anticipated emotions of binge-drinking predicted their intentions to binge-drink above and beyond their attitudes about drinking, perceived control, peer norms, and family norms.

The current study investigates the validity of the EARS in the following ways: 1) descriptive statistics are presented at the item level of the measure to demonstrate appropriate variability in answers; 2) descriptive statistics are presented regarding how realistic participants

found the EARS situations; and 3) the correlation between the total score for experiential avoidance on the EARS and trait experiential avoidance measured by the MEAQ (Gámez et al., 2011) is examined, with the expectation that these variables are at least moderately positively associated.

Multidimensional Experiential Avoidance Questionnaire (MEAQ; Gámez, et al., 2011). The MEAQ is a 62-item self-report assessment of experiential avoidance. The measure developers sought to account for perceived problems with commonly used assessments of experiential avoidance, the AAQ (Hayes et al., 2004) and AAQ-2 (Bond et al., 2011). Critiques included that these previous measures: (1) captured only certain aspects of the phenomenon (i.e., non-acceptance of distress and interference with values) with a limited number of items, (2) often exhibited low internal consistency coefficients across studies, (3) included non-specific distress items that contribute to criterion contamination (e.g., “It seems like most people are handling their lives better than I am”), and (4) show poor evidence of discriminant validity with trait negative affect and neuroticism (Gámez et al., 2011). The MEAQ is made up of six subscales: Behavioral Avoidance (11 items, e.g., “I rarely do something if there is a chance it will upset me”), Distress Aversion (13 items, e.g., When I am hurting, I would do anything to feel better”), Procrastination (7 items, e.g., “I tend to put off unpleasant things that need to get done”), Distraction and Suppression (7 items, e.g., “I usually try to distract myself when I feel something painful”), Repression and Denial (13 items, e.g., “I sometimes have difficulty identifying how I feel”), and Distress Endurance (11 items, e.g., “Even when I feel uncomfortable, I don’t give up working toward things I value”). Response options are on a Likert scale ranging from 1 (*strongly disagree*) to 6 (*strongly agree*), and item scores are summed to create a total for each subscale. Additionally, all item scores can be summed (while reverse

scoring distress endurance) to create a total score for the MEAQ, which represents trait experiential avoidance in the current study. The full measure is displayed in Appendix E. Cronbach's alpha for the MEAQ in this sample was .86, indicating good reliability.

With samples including college students, psychiatric outpatients, and community adults, the initial psychometric study for the MEAQ (Gámez et al., 2011) used exploratory factor analysis to investigate factor structure of the measure and correlations to assess convergent and discriminant validity. Results supported a six-factor solution that led the authors to the creation of the six subscales. Subscales showed generally good internal consistency values. Additionally, the association between the MEAQ and AAQ/AAQ-2 was significantly greater than the association between the MEAQ and negative affectivity and neuroticism, supporting convergent and discriminant validity. Furthermore, the MEAQ was added in the second step of hierarchical regression analyses predicting a range of psychopathology and quality of life variables to determine whether it could add explanatory power above and beyond the AAQ or AAQ-2. These analyses found that the MEAQ significantly predicted depression, phobias, OCD, positive affect, and purpose-in-life variables when controlling for the prior measure of experiential avoidance, supporting its incremental validity. An additional study by Rochefort, Baldwin, and Chmielewski (2017) compared the performance of the MEAQ to that of the AAQ-2 using both online and community samples. Factor analysis at the scale, subscale and item levels indicated that the AAQ-2 was more associated with measures of neuroticism and negative affect than it was with the MEAQ and mindfulness (a related construct from third-wave cognitive behavioral therapies), whereas the MEAQ formed its own factor or loaded onto a factor with mindfulness. This study indicates that the MEAQ represents a more precise measurement of experiential avoidance than the AAQ-2.

Revised Conflict Tactics Scales (CTS2; Straus, Hamby, Boney-McCoy, & Sugarman, 1996). The CTS2 is the most widely used assessment of IPV, and the 12-item Physical Assault scale and the 7-item Sexual Coercion scale were used in this study. Each item describes an aggressive act directed towards a relationship partner, and respondents are asked about the frequency with which they and their partner have engaged in each behavior over the prior 6 months, with response options of *once*, *twice*, *3 to 5 times*, *6 to 10 times*, *11 to 20 times*, and *more than 20 times*. There is also an option for *not in the past six months, but it did happen before that*. There are two ways one can score the scales. The first is called frequency scoring, in which responses are recoded to reflect the estimated frequency in the past 6 months for each item, with midpoints used for ranges of scores (e.g., *3 to 5 times* was recoded as 4), and *more than 20 times* recoded as 25 (Straus et al., 1996). A total score is created by summing frequency scores across items. The second is called lifetime variety scoring, in which each item is scored dichotomously as either 0 (never occurred) or 1 (occurred at least once before in lifetime), before summing across items. Both scoring methods were calculated for the current study. Example items of the Physical Assault scale include “I pushed or shoved my partner,” “I grabbed my partner,” and “I beat up my partner.” Example items of the Sexual Coercion scale include “I insisted on sex when my partner did not want to (but did not use physical force),” “I used force (like hitting, holding down, or using a weapon) to make my partner have sex,” and “I used threats to make my partner have sex.” The full measure is displayed in Appendix F. Cronbach’s alpha was .80 for the Physical Assault Frequency score and .84 for the Physical Assault Lifetime Variety score, indicating good reliability. Cronbach’s alpha could not be computed for the Sexual Coercion Frequency score because only a single item had non-zero variance (“I insisted

on sex when my partner did not want to (but did not use physical force)"). Cronbach's alpha was .68 for the Sexual Coercion Lifetime Variety score, reflecting questionable reliability.

Past research has established the psychometric properties of the CTS2. The original psychometric paper (Straus et al., 1996) examined the measure among a sample of 317 college students in dating relationships. For the Physical Assault scale, the researchers found good internal consistency ($\alpha = .86$) and a strong association with injury for men ($r = .87$). They also found good internal consistency ($\alpha = .87$) for the Sexual Coercion scale. A study by Vega and O'Leary (2007) investigated the 9-week test-retest reliability of the CTS2 among a clinical sample of 87 IPV offenders, finding a large correlation ($r = .68$) across time points for the Physical Assault scale and for the Sexual Coercion scale ($r = .67$). Validity of the CTS2 has also been supported by findings throughout thousands of studies using the measure, including studies showing relationships between psychopathology and IPV perpetration (e.g., Crane, Dawes, Devine, & Easton, 2014) and studies detecting differences between IPV treatment conditions (e.g., Taft, Macdonald, et al., 2016).

Multidimensional Measure of Emotional Abuse (MMEA; Murphy & Hoover, 1999).

The MMEA is a 28-item self-report assessment that was developed based on a review of the empirical and clinical literature on psychological abuse in marital and dating relationships (Murphy & Cascardi, 1999). The measure was designed to capture abuse across several different dimensions: *Restrictive Engulfment* (e.g., "Tried to stop the other person from seeing certain friends or family members"), *Hostile Withdrawal* (e.g., "Acted cold or distant when angry"), *Denigration* (e.g., "Said or implied that the other person was stupid"), and *Dominance/Intimidation* (e.g., "Threw, smashed, hit, or kicked something in front of the other person"). To reduce the overall assessment length, this study uses a brief version of the measure

that includes 16 items (4 per domain) and was created by eliminating items from the original 28-item scale based on potential limitations in applicability of item content (e.g., “Drove recklessly to frighten the other person” does not apply to individuals who do not drive), psychometric considerations (e.g., low item-total correlations), or redundancy in domain content. Response options and scoring rules are consistent with those of the CTS2. Item frequencies were summed to create a total Emotional Abuse Frequency score, and dichotomous item scores were summed to create an Emotional Abuse Lifetime Variety score. The full measure is displayed in Appendix G. Cronbach’s alpha was .90 and .89 for the Emotional Abuse Frequency and Lifetime Variety scores, respectively, indicating good to excellent reliability.

Most validity research has been conducted on the full 28-item version of the measure. Exploratory and confirmatory factor analyses among college students in dating relationships have supported the MMEA’s four-factor structure (Murphy & Hoover, 1999; Murphy, Hoover, & Taft, 1999). Past research supports internal consistency and convergent validity via positive associations with relationship problems (LaMotte, Meis, Winters, Barry, & Murphy, 2017) and clinical anger (Murphy, Taft, & Eckhardt, 2007) among men presenting for treatment at an AIP. Additionally, past research has found that this measure is associated with AIP treatment adherences factors such as therapist working alliance and homework compliance (Taft, Murphy, King, Musser, & DeDeyn, 2003), is sensitive to treatment group differences (Taft, Macdonald, et al., 2016), and is predictive of abuse survivor PTSD symptoms while controlling for physical abuse (Norwood & Murphy, 2012; Taft, Murphy, King, DeDeyn, & Musser, 2005), supporting its clinical significance and validity for use among this population. Furthermore, a recent study examining the brief version of the MMEA among 467 men presenting for treatment at an AIP

found that the four-factor model fit the data well (Maldonado, Murphy, Farzan-Kashani, Sun, & Pitts, in preparation).

Chapter 4: Results

Preliminary and Descriptive Analyses

Overview. Prior to addressing the primary study hypotheses, preliminary analyses were conducted in order to: 1) investigate the validity of the EARS in the current sample, 2) examine assumptions of normality of the primary study variables, 3) provide descriptive information regarding rates of trauma and probable PTSD in the sample, and 4) examine correlations between the primary study variables and demographic characteristics.

Item-Level EARS Data. Item-level EARS data are presented to examine the validity of the measure. Means, standard deviations, and percent endorsement (the number of participants that reported a 1 or higher) for each item are displayed in Tables 9 through 13. Participants endorsed a range of emotions for each of the five situations. Overall this indicated that, as expected, the situations were generally successful at evoking distressing emotions. Notably, means and percent endorsement for jealousy were relatively low for Situations 2 and 4, which supported validity, as these situations did not involve components designed to evoke jealousy (the situations were a partner revealing private information to others and a partner running late for a shared appointment). With the exception of Item 4 in Situations 2 and 5 (both “physically pushing my partner away from me”), all responses for anticipated reduction in emotions and likelihood were endorsed by a sizeable portion ($> 30\%$) of the sample.

Perceived realism of the situations was also high, with mean ratings between 7.84 and 8.54 on a scale of 0 through 10. Only a small minority of participants (0.0% to 8.1% across situations) reported that the situations were not at all realistic by providing a rating of 0 on this scale. These ratings provide support for the ecological validity of the situations in the EARS for the current sample.

Finally, to investigate the convergent validity of the EARS experiential avoidance scale, its association with MEAQ trait experiential avoidance was examined. The correlation between these variables was $r = .42, p < .001$, supporting the idea that they measure similar constructs, as well as capture unique variance.

Table 9

EARS Item-Level Data for Situation 1: Partner is Flirting with a Stranger.

Items	Mean (SD)	<i>n</i> (%)
Emotional Responding:		
Anger	4.92 (3.48)	60 (81.1%)
Jealousy	5.22 (3.56)	62 (83.8%)
Sadness	2.93 (3.69)	36 (48.6%)
Anxiety	3.99 (3.74)	47 (63.5%)
EA1: I would want to get rid of these emotions as soon as possible	7.89 (3.62)	64 (86.5%)
EA2: It would be difficult for me to tolerate these feelings for more than a short time	6.00 (3.82)	60 (81.1%)
Anticipated reduction in negative emotion:		
1: Telling self “It’s no big deal”	5.64 (3.60)	64 (86.5%)
2: Confronting partner/other person	6.20 (3.58)	64 (86.5%)
3: Distracting self with conversation/game	3.89 (3.66)	46 (62.2%)
4: Forcing partner to leave party	4.61 (4.35)	45 (60.8%)
5: Using substances to cope	2.80 (3.80)	33 (44.6%)
6: Start flirting with someone else	4.04 (4.16)	41 (55.4%)
Perceived Likelihood of Response:		
1: Telling self “It’s no big deal”	5.28 (3.82)	56 (75.7%)
2: Confronting partner/other person	6.23 (3.86)	60 (81.1%)
3: Distracting self with conversation/game	3.68 (3.66)	47 (63.5%)
4: Forcing partner to leave party	4.41 (4.47)	41 (55.4%)
5: Using substances to cope	2.89 (3.64)	36 (48.6%)
6: Start flirting with someone else	4.04 (4.06)	43 (58.1%)
Realism of Situation	8.38 (2.18)	74 (100.0%)

Note. The *n* and percent endorsement for each item represents the number of participants that reported a 1 or higher for each item. Responses categorized as aggressive/abusive are bolded.

Table 10

EARS Item-Level Data for Situation 2: Partner Tells Others Your Private Information.

Items	Mean (SD)	<i>n</i> (%)
Emotional Responding:		
Anger	6.91 (3.34)	68 (91.9%)
Jealousy	2.24 (3.58)	25 (33.8%)
Sadness	5.19 (3.98)	53 (71.6%)
Anxiety	5.68 (4.04)	55 (74.3%)
EA1: I would want to get rid of these emotions as soon as possible	8.12 (3.29)	67 (90.5%)
EA2: It would be difficult for me to tolerate these feelings for more than a short time	6.42 (3.64)	63 (85.1%)
Anticipated reduction in negative emotion:		
1: Telling self “It’s no big deal”	3.26 (3.75)	39 (52.7%)
2: Raising voice with partner	3.11 (3.24)	46 (62.2%)
3: Taking several deep calming breaths	5.39 (3.56)	60 (81.1%)
4: Physically pushing partner away	1.26 (2.55)	22 (29.7%)
5: Calmly expressing hurt feelings	7.27 (3.50)	66 (89.2%)
6: Threatening to tell partner’s secrets	2.15 (3.69)	24 (32.4%)
Perceived Likelihood of Response:		
1: Telling self “It’s no big deal”	3.31 (3.87)	39 (52.7%)
2: Raising voice with partner	4.08 (3.85)	49 (66.2%)
3: Taking several deep calming breaths	5.91 (3.87)	62 (83.8%)
4: Physically pushing partner away	1.53 (2.88)	23 (31.1%)
5: Calmly expressing hurt feelings	6.88 (3.71)	64 (86.5%)
6: Threatening to tell partner’s secrets	2.55 (4.00)	25 (33.8%)
Realism of Situation	8.09 (2.96)	68 (91.9%)

Note. The *n* and percent endorsement for each item represents the number of participants that reported a 1 or higher for each item. Responses categorized as aggressive/abusive are bolded.

Table 11

EARS Item-Level Data for Situation 3: Partner Invited to Singles Club by Friend.

Items	Mean (SD)	<i>n</i> (%)
Emotional Responding:		
Anger	4.20 (3.81)	49 (66.2%)
Jealousy	4.46 (3.84)	51 (68.9%)
Sadness	2.57 (3.43)	34 (45.9%)
Anxiety	4.51 (4.03)	46 (62.2%)
EA1: I would want to get rid of these emotions as soon as possible	6.68 (4.36)	55 (74.3%)
EA2: It would be difficult for me to tolerate these feelings for more than a short time	4.81 (4.26)	48 (64.9%)
Anticipated reduction in negative emotion:		
1: Forbidding partner from going	3.82 (4.08)	41 (55.4%)
2: Telling self to trust partner	7.11 (3.48)	65 (87.8%)
3: Asking partner about their plans for the night	5.11 (3.89)	52 (70.3%)
4: Threatening to break up if she goes	2.07 (3.56)	24 (32.4%)
5: Calmly expressing concerns	6.42 (4.05)	59 (79.7%)
6: Lying about already having plans for us	2.69 (3.92)	28 (37.8%)
Perceived Likelihood of Response:		
1: Forbidding partner from going	3.58 (4.22)	38 (51.4%)
2: Telling self to trust partner	6.84 (3.80)	62 (83.8%)
3: Asking partner about their plans for the night	5.91 (3.91)	58 (78.4%)
4: Threatening to break up if she goes	2.14 (3.56)	23 (31.1%)
5: Calmly expressing concerns	6.34 (4.15)	57 (77.0%)
6: Lying about already having plans for us	2.68 (3.89)	29 (39.2%)
Realism of Situation	8.54 (2.36)	72 (97.3%)

Note. The *n* and percent endorsement for each item represents the number of participants that reported a 1 or higher for each item. Responses categorized as aggressive/abusive are bolded.

Table 12

EARS Item-Level Data for Situation 4: Partner Not Ready in Time for Shared Appointment.

Items	Mean (SD)	<i>n</i> (%)
Emotional Responding:		
Anger	6.01 (3.47)	63 (85.1%)
Jealousy	0.61 (1.80)	11 (14.9%)
Sadness	1.82 (2.96)	27 (36.5%)
Anxiety	5.43 (3.73)	59 (79.7%)
EA1: I would want to get rid of these emotions as soon as possible	7.12 (3.95)	62 (83.8%)
EA2: It would be difficult for me to tolerate these feelings for more than a short time	6.03 (4.21)	56 (75.7%)
Anticipated reduction in negative emotion:		
1: Telling self “if we’re late, she’ll apologize and trust me next time”	4.50 (3.84)	49 (66.2%)
2: Yelling back at partner	2.31 (2.96)	33 (44.6%)
3: Taking several deep calming breaths	5.97 (3.35)	66 (89.2%)
4: Leaving for the appointment without her	5.47 (4.14)	54 (73.0%)
5: Calmly asking when she thinks is time to leave	4.95 (3.87)	52 (70.3%)
6: Insulting partner’s sense of time	5.08 (4.20)	52 (70.3%)
Perceived Likelihood of Response:		
1: Telling self “if we’re late, she’ll apologize and trust me next time”	4.20 (4.23)	43 (58.1%)
2: Yelling back at partner	4.04 (3.97)	43 (58.1%)
3: Taking several deep calming breaths	6.07 (3.41)	67 (90.5%)
4: Leaving for the appointment without her	5.08 (4.26)	50 (67.6%)
5: Calmly asking when she thinks is time to leave	4.55 (3.87)	50 (67.6%)
6: Insulting partner’s sense of time	5.70 (4.12)	57 (77.0%)
Realism of Situation	8.54 (2.34)	73 (98.6%)

Note. The *n* and percent endorsement for each item represents the number of participants that reported a 1 or higher for each item. Responses categorized as aggressive/abusive are bolded.

Table 13

EARS Item-Level Data for Situation 5: Partner Insults Your Handiwork.

Items	Mean (SD)	<i>n</i> (%)
Emotional Responding:		
Anger	7.51 (3.48)	65 (87.8%)
Jealousy	5.09 (4.05)	52 (70.3%)
Sadness	3.77 (4.04)	40 (54.1%)
Anxiety	4.24 (4.05)	45 (60.8%)
EA1: I would want to get rid of these emotions as soon as possible	7.27 (3.86)	60 (81.1%)
EA2: It would be difficult for me to tolerate these feelings for more than a short time	6.28 (3.95)	59 (79.7%)
Anticipated reduction in negative emotion:		
1: Telling self “she must be upset/worried”	5.46 (4.15)	53 (71.6%)
2: Raising voice with partner	2.43 (3.06)	36 (48.6%)
3: Calmly expressing hurt feelings	6.43 (3.76)	61 (82.4%)
4: Physically pushing partner away	1.05 (2.43)	17 (23.0%)
5: Removing oneself to “cool off” for a while	7.22 (3.54)	65 (87.8%)
6: Making sarcastic remark	5.99 (4.18)	56 (75.7%)
Perceived Likelihood of Response:		
1: Telling self “she must be upset/worried”	5.68 (4.14)	55 (74.3%)
2: Raising voice with partner	3.50 (3.73)	43 (58.1%)
3: Calmly expressing hurt feelings	6.77 (3.60)	65 (87.8%)
4: Physically pushing partner away	1.32 (2.64)	22 (29.7%)
5: Removing oneself to “cool off” for a while	7.04 (3.85)	63 (85.1%)
6: Making sarcastic remark	6.36 (4.16)	59 (79.7%)
Realism of Situation	7.84 (3.21)	69 (93.2%)

Note. The *n* and percent endorsement for each item represents the number of participants that reported a 1 or higher for each item. Responses categorized as aggressive/abusive are bolded.

Descriptive Statistics. Descriptive statistics for the TEQ, PCL-5, EARS, and MEAQ are displayed in Table 14. None of these variables deviated substantially from normality (operationalized as skew greater than 2.0 and/or kurtosis greater than 7.0; West, Finch & Curran, 1995).

Table 14

Descriptive Statistics for Trauma, PTSD Symptoms, EARS Scales, and Trait Experiential Avoidance.

Variable	Min	Max	Mean	Standard Deviation	Skew	Kurtosis
Trauma Frequency Score	1	33	12.34	6.85	0.79	0.71
PTSD Symptoms	0	73	28.22	16.87	0.16	-0.60
EARS						
Anger	1	50	29.55	11.37	-0.35	-0.40
Jealousy	0	39	17.62	11.44	0.09	-1.14
Sadness	0	50	16.28	13.62	0.46	-0.82
Anxiety	0	50	23.85	15.38	-0.10	-1.23
Total Negative Emotion	4	170	87.31	44.82	0.04	-1.03
Experiential Avoidance	0.5	10	6.66	2.34	-0.52	-0.41
Anticipated Reduction in Emotion from Aggressive/Abusive Actions	0	123	52.28	30.24	0.29	-0.67
Anticipated Reduction in Emotion from Non-Aggressive/Non-Abusive Actions	10	128	81.41	25.66	-0.31	-0.45
Perceived Likelihood of Aggressive/Abusive Actions	0	132	57.24	34.46	0.25	-0.88
Perceived Likelihood of Non-Aggressive/Non-Abusive Actions	20	133	81.34	27.56	-0.12	-0.88
Trait Experiential Avoidance	149	311	221.52	32.76	0.11	-0.20

Notes. Abbreviations: PTSD, posttraumatic stress disorder; EARS, Experiential Avoidance in Relationship Situations.

Descriptive statistics for the measures of abusive behavior are presented in Table 15. Notably, Physical Assault Frequency, Sexual Coercion Frequency, Emotional Abuse Frequency, and Sexual Coercion Lifetime Variety substantially deviated from normality (operationalized as skew greater than 2.0 and/or kurtosis greater than 7.0; West, Finch & Curran, 1995). Therefore, these variables were log-transformed. As shown in Table 15, the log-transformed versions of the variables then met the assumptions of normality (with the exception of log-transformed Sexual Coercion Frequency), and consequently are used in subsequent analyses.

Table 15

Descriptive Statistics for Abusive Behavior.

Variable	Min	Max	Mean	Standard Deviation	Skew	Kurtosis
Physical Assault Frequency	0	59	5.92	11.61	2.86	8.51
Sexual Coercion Frequency	0	4	0.41	1.01	2.76	6.99
Emotional Abuse Frequency	0	249	30.36	49.61	2.54	6.86
Log-Transformed Physical Assault Frequency	0	1.78	0.46	0.53	0.86	-0.37
Log-Transformed Sexual Coercion Frequency	0	0.70	0.09	0.20	2.14	3.43
Log-Transformed Emotional Abuse Frequency	0	2.40	0.96	0.76	0.01	-1.25
Physical Assault Lifetime Variety	0	12	3.99	3.03	0.47	-0.63
Sexual Coercion Lifetime Variety	0	7	0.65	1.05	3.36	17.38
Emotional Abuse Lifetime Variety	0	16	9.12	4.74	-0.46	-0.89
Log-Transformed Sexual Coercion Lifetime Variety	0	0.90	0.19	0.24	0.93	-0.04

Note. Physical Assault and Sexual Coercion were measured with the Revised Conflict Tactics

Scales, and Emotional Abuse was measured with the Brief Multidimensional Measure of

Emotional Abuse. Frequency scores reflected frequency of behaviors in the prior 6 months, and

Lifetime Variety scores reflected the number of types of abusive acts ever used.

Table 16 presents information about endorsement of different types of trauma in the sample. Traumatic events were very common, with participants reporting an average of 5.5 ($SD = 2.4$) unique types of trauma and 12.3 ($SD = 6.9$) total traumatic events experienced. All participants (100%) reported experiencing at least one traumatic event. Events most often reported as the primary traumatic event were *receiving news of mutilation, serious injury, or violent/unexpected death of someone close* and *being in danger of death/serious injury*. Additionally, 34 participants (45.9%) had a PCL-5 score of 33 or higher, indicating a probable diagnosis of PTSD.

Table 16

TEQ Trauma Endorsement.

Variable	<i>n</i> (%) endorsed	Mean (SD) Frequency	<i>n</i> (%) most traumatic
Been in/witnessed serious industrial, farm, or car accident or a large fire or explosion	52 (70.3%)	1.43 (1.18)	5 (6.8%)
Been in natural disaster	22 (29.7%)	0.42 (0.76)	0 (0.0%)
Victim of violent crime	37 (50.0%)	1.00 (1.21)	0 (0.0%)
Victim of physical abuse in childhood	29 (39.2%)	1.14 (1.44)	6 (8.1%)
Victim of sexual abuse in childhood	10 (13.5%)	0.32 (0.88)	2 (2.7%)
Childhood witnessing of parents attacking/harming one another	39 (52.7%)	1.43 (1.43)	1 (1.4%)
Victim of intimate relationship abuse in adulthood	39 (52.7%)	1.15 (1.26)	4 (5.4%)
Witnessed someone mutilated, seriously injured, or violently killed	47 (63.5%)	1.45 (1.31)	9 (12.2%)
Been in danger of losing own life or being seriously injured	46 (62.2%)	1.41 (1.27)	19 (25.7%)
Received news of mutilation, serious injury, or violent/unexpected death of someone close	68 (91.9%)	2.19 (1.03)	23 (31.1%)
Other very traumatic event	10 (13.5%)	0.24 (0.70)	3 (4.1%)
Other very traumatic event (does not want to share content)	5 (6.8%)	0.16 (0.64)	2 (2.7%)

Note. Mean trauma frequency was calculated including those who reported 0 instances.

Next, correlations between demographic characteristics and the primary study variables are displayed in Table 17. Race, years of formal education, and monthly income were not significantly associated with any primary study variables, with the exception that monthly income was negatively correlated with PTSD symptoms. Being in a relationship within the past 6 months was positively associated with the following EARS variables: anger across situations, jealousy across situations, and perceived likelihood of engaging in aggressive/abusive actions. In particular, being in a relationship in the past 6 months was moderately associated with Physical Assault Frequency in the past 6 months, and strongly associated with Emotional Abuse Frequency in the past 6 months. This makes intuitive sense, as participants not in a relationship in the past 6 months have limited ability to perpetrate IPV. In contrast, recent relationship status was not associated with Physical Assault, Sexual Coercion, and Emotional Abuse Lifetime Variety scores, which reflect the number of types of abusive acts the individual has ever engaged in. Given the large amount of variance accounted for by recent relationship status in past 6-month Physical Assault and Emotional Abuse perpetration, Lifetime Variety scores were used for all primary study analyses. Use of these scores additionally had the benefit of meeting the assumptions of normality (including sexual coercion, when it was log-transformed). Supplemental analyses utilizing past 6-month frequency scores are presented in Appendix H.

Table 17

Pearson Correlations Between Demographic Characteristics and Primary Study Variables.

Variable	Race ^b	Education	Monthly Income	In Relationship in Past 6 Months ^c
Trauma Frequency Score	-.13	-.11	-.04	.18
PTSD Symptoms	-.12	-.12	-.23*	.15
EARS				
Anger	-.08	-.07	-.14	.32*
Jealousy	-.14	-.07	-.04	.25*
Sadness	-.08	-.10	-.06	.10
Anxiety	-.11	-.10	-.12	.11
Total Negative Emotion	-.12	-.10	-.11	.21
Experiential Avoidance	-.11	-.11	-.14	.09
Anticipated Reduction in Emotion from Aggressive/Abusive Actions	.07	-.02	-.03	.23
Anticipated Reduction in Emotion from Non-Aggressive/Non-Abusive Actions	-.02	.05	-.04	.07
Perceived Likelihood of Aggressive/Abusive Actions	.01	-.01	.03	.25*
Perceived Likelihood of Non-Aggressive/Non-Abusive Actions	-.02	.10	-.12	.00
Trait Experiential Avoidance	-.05	-.10	-.15	-.09
Physical Assault Frequency ^a	-.03	-.01	-.07	.39**
Sexual Coercion Frequency ^a	.02	.03	-.20	.16
Emotional Abuse Frequency ^a	.08	-.13	-.19	.61**
Physical Assault Lifetime Variety	.09	.01	.15	.04
Sexual Coercion Lifetime Variety ^a	-.03	.15	.13	-.18
Emotional Abuse Lifetime Variety	-.08	.02	-.05	.06

Notes. Abbreviations: PTSD, posttraumatic stress disorder; EARS, Experiential Avoidance in Relationship Situations.

^a. Log-transformed

^b. Coded as 1 = Black/African American, 0 = Other race/ethnicity

^c. Coded as 1 = In relationship within past 6 months, 0 = Not in relationship within past 6 months

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

Primary Analyses

Overview. Primary study findings are organized by hypotheses, with data analytic strategies described in each section prior to the results.

Hypothesis 1: *Higher levels of lifetime trauma exposure and higher PTSD symptoms will be associated at the bivariate level with increased negative mood states in response to distressing hypothetical relationship scenarios.*

This hypothesis was tested via Pearson correlations between trauma frequency, PTSD symptoms, and participants' emotions reported across the five relationship situations of the EARS. Results are presented in Table 18. This hypothesis was supported. Trauma frequency was significantly correlated with anger, jealousy, and sadness, with small effect sizes, and was significantly correlated with anxiety and the total negative emotion score, with moderate effect sizes. Similarly, PTSD symptoms were significantly correlated with jealousy and sadness, with moderate effect sizes, and were significantly correlated with anger, anxiety, and the total negative emotion score, with large effect sizes.

Table 18

Pearson Correlations between Trauma Frequency, PTSD Symptoms, and Emotions in Distressing Relationship Scenarios.

Variable	1.	2.	3.	4.	5.	6.
1. Trauma Frequency Score	--					
2. PTSD Symptoms	.49**	--				
3. EARS Anger	.27*	.52**	--			
4. EARS Jealousy	.28*	.40**	.71**	--		
5. EARS Sadness	.25*	.37*	.62**	.63**	--	
6. EARS Anxiety	.46*	.58**	.65**	.59**	.76**	--
7. EARS Total Negative Emotion	.37*	.54**	.84**	.83**	.88**	.89**

Note. Abbreviations: PTSD, posttraumatic stress disorder; EARS, Experiential Avoidance in Relationship Situations.

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

Hypothesis 2: *Higher levels of lifetime trauma exposure and higher PTSD symptoms will be associated at the bivariate level with greater experiential avoidance, measured both via a trait measure and via avoidance-related responses to hypothetical relationship scenarios.*

This hypothesis was tested via Pearson correlations between trauma frequency, PTSD symptoms, and experiential avoidance measured by the EARS and the MEAQ. Results are presented in Table 19. This hypothesis was supported, with trauma frequency showing a significant moderate correlation with EARS experiential avoidance, and PTSD symptoms showing significant moderate correlations with experiential avoidance measured by both the EARS and MEAQ.

Table 19

Pearson Correlations between Trauma Frequency, PTSD Symptoms, and Experiential Avoidance.

Variable	1.	2.	3.	4.
1. Trauma Frequency Score	--			
2. PTSD Symptoms	.49**	--		
3. EARS Experiential Avoidance	.47**	.45**	--	
4. MEAQ Experiential Avoidance	.13	.45**	.42**	--

Note. Abbreviations: PTSD, posttraumatic stress disorder; EARS, Experiential Avoidance in Relationship Situations; MEAQ, Multidimensional Measure of Emotional Abuse.

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

Hypothesis 3: *Experiential avoidance, measured both via a trait measure and via avoidance-related responses to hypothetical relationship scenarios, will mediate the relationship between PTSD symptoms and IPV perpetration (including physical assault, sexual coercion, and emotional abuse perpetration).*

Prior to conducting mediation analyses, bivariate correlations between all variables for Hypotheses 3 through 7 were examined. As shown in Table 20, PTSD symptoms were significantly correlated with Physical Assault and Sexual Coercion Lifetime Variety scores, with small effect sizes, and were significantly correlated with Emotional Abuse Lifetime Variety scores, with a large effect size. Trait experiential avoidance measured from the MEAQ was significantly positively associated with anticipated reduction in emotion from aggressive/abusive actions, perceived likelihood of aggressive/abusive actions, and Emotional Abuse Lifetime Variety scores, all with moderate effect sizes. There was a small effect size correlation between trait experiential avoidance and perceived likelihood of non-aggressive/non-abusive actions. Experiential avoidance from the EARS was significantly positively associated with perceived

likelihood of aggressive/abusive actions and Emotional Abuse Lifetime Variety scores, with moderate effect sizes. EARS experiential avoidance was also significantly positively associated with Sexual Coercion Lifetime Variety scores, with a small effect size. Additionally, anticipated reduction in emotion from aggressive/abusive actions was significantly and positively associated with both PTSD symptoms and Emotional Abuse Lifetime Variety scores, with moderate effect sizes.

Table 20

Pearson Correlations between Variables of Interest for Hypotheses 3 through 7.

Variable	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
1. PTSD Symptoms	--									
2. MEAQ Experiential Avoidance	.45**	--								
3. EARS Experiential Avoidance	.45**	.42**	--							
4. ARE from Aggressive Actions	.36*	.45**	.23	--						
5. ARE from Non-Aggressive Actions	.12	.22	.14	.24*	--					
6. PL of Aggressive Actions	.45**	.37*	.33*	.81**	.13	--				
7. PL of Non-Aggressive Actions	.22	.26*	.19	.15	.82**	.13	--			
8. Physical Assault Lifetime Variety	.25*	.19	.19	.15	.29*	.27*	.24*	--		
9. Sexual Coercion Lifetime Variety ^a .	.25*	.07	.28*	.16	.08	.25*	.12	.38**	--	
10. Emotional Abuse Lifetime Variety	.54**	.45**	.49**	.43**	.25*	.53**	.36**	.56**	.39**	--

Note. Abbreviations: PTSD, posttraumatic stress disorder; EARS, Experiential Avoidance in Relationship Situations; MEAQ, Multidimensional Experiential Avoidance Questionnaire; ARE, Anticipated Reduction in Emotion; PL, Perceived Likelihood.

^a. Log-transformed

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

The general mediation model for the third hypothesis is depicted in Figure 1. In total, 6 mediation models were run, including both MEAQ and EARS measures of experiential avoidance as mediators, and Physical Assault, Sexual Coercion, and Emotional Abuse Lifetime Variety scores as outcomes. Each mediation model was tested using Model 4 of the SPSS PROCESS Macro (Hayes, 2017). Bias-corrected bootstrap 95% confidence intervals were estimated to test the significance of indirect effects, with significance indicated by intervals that do not cross zero. This approach is preferable to Baron and Kenny's (1986) causal steps approach, which does not directly test the significance of indirect effects, and is also preferable to the Sobel test, which may inaccurately assume normality of the sampling distribution of the indirect effect.

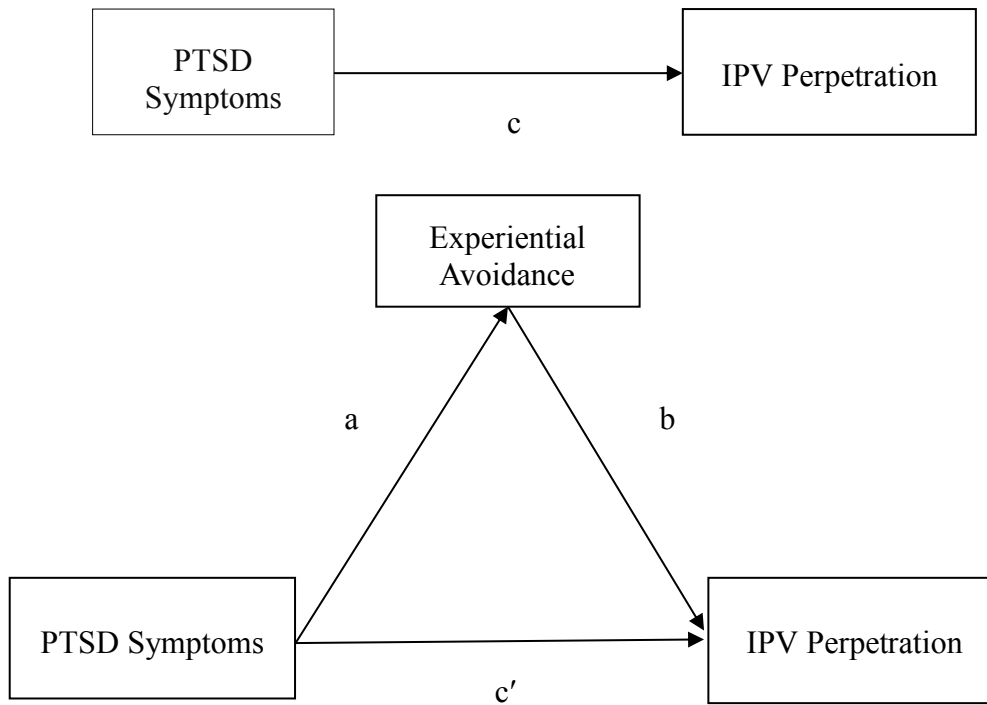


Figure 1. Experiential avoidance as a mediator between PTSD symptoms and IPV Perpetration

Results of the mediation analyses are presented in Table 21. Hypotheses were partially supported. Experiential avoidance measured both via the EARS and MEAQ significantly mediated the relationship between PTSD symptoms and Emotional Abuse perpetration, as indicated by 95% CIs for the indirect effect that do not cross zero. In both cases, PTSD symptoms significantly predicted Emotional Abuse perpetration while controlling for experiential avoidance. However, contrary to hypotheses, experiential avoidance assessed by both measures did not significantly mediate the relationships between PTSD symptoms and Physical Assault or Sexual Coercion perpetration.

Table 21

Results of Mediation Analyses

Mediator	Outcome	R^2	c path (SE)	a path (SE)	b path (SE)	c' path (SE)	a x b (SE)	95% CI of a x b
EARS EA	Physical Assault	.07	.0448 (.0205)*	.0619 (.0146)*	.1216 (.1662)	.0373 (.0230)	.0075 (.0103)	-.0131 to .0289
EARS EA	Sexual Coercion ^a	.10*	.0035 (.0016)*	.0619 (.0146)*	.0208 (.0127)	.0022 (.0018)	.0013 (.0008)	-.0002 to .0030
EARS EA	Emotional Abuse	.37*	.1512 (.0279)*	.0619 (.0146)*	.6318 (.2143)*	.1121 (.0297)*	.0391 (.0155)*	.0126 to .0729
MEAQ EA	Physical Assault	.07	.0448 (.0205)*	.8644 (.2049)*	.0094 (.0118)	.0367 (.0230)	.0081 (.0103)	-.0103 to .0304
MEAQ EA	Sexual Coercion ^a	.07	.0035 (.0016)*	.8644 (.2049)*	-.0004 (.0009)	.0039 (.0018)*	-.0003 (.0008)	-.0020 to .0012
MEAQ EA	Emotional Abuse	.34*	.1512 (.0279)*	.8644 (.2049)*	.0380 (.0155)*	.1184 (.0301)*	.0328 (.0143)*	.0101 to .0653

Note. Bias-corrected 95% CIs were calculated on the basis of 5,000 bootstrap samples. All analyses are based on standardized variables.

The mediation effect is represented by the a x b path. Abbreviations: EARS, Experiential Avoidance in Relationship Situations; MEAQ, Multidimensional Experiential Avoidance Questionnaire; EA, experiential avoidance; CI, Confidence Interval. All abuse variables reflect Lifetime Variety scores.

^a. Log-transformed

* $p < .05$ or CIs that did not cross zero. ** $p < .001$.

Hypothesis 4: *Participants will show a general tendency to rate aggressive/abusive responses to the relationship scenarios as more likely to reduce negative mood states, compared with non-aggressive/non-abusive responses.*

This hypothesis was tested using a dependent-means *t*-test comparing EARS anticipated reduction in emotion from aggressive/abusive actions to anticipated reduction in emotion from non-aggressive/non-abusive actions. Total scores were created by averaging ratings across items and relationship situations. Results indicated that this hypothesis was not supported, with participants anticipating on average that non-aggressive/non-abusive actions would better reduce negative emotions ($M = 81.41$, $SD = 25.66$) than would aggressive/abusive actions ($M = 52.28$, $SD = 30.24$), $t(73) = 7.25$, $p < .001$, $d = 0.84$. Cohen's d for this analysis reflects a large effect.

Hypothesis 5: *Beliefs that aggressive/abusive responses will repair one's mood state will moderate the mediating effect of experiential avoidance between PTSD symptoms and IPV perpetration. Specifically, the relationship between experiential avoidance and IPV perpetration will be stronger for those who hold stronger beliefs in the mood-repairing properties of aggressive/abusive responses.*

The general moderated mediation model to test Hypothesis 5 is displayed in Figure 2. Anticipated reduction in emotion from aggressive/abusive actions is hypothesized to moderate the relationship between experiential avoidance and IPV perpetration (i.e., the b path of the mediation model from Hypothesis 3). In total, 6 moderated mediation models were run, including both MEAQ and EARS measures of experiential avoidance as mediators, and Physical Assault, Sexual Coercion, and Emotional Abuse perpetration as outcomes. Each moderated mediation model was tested using Model 14 of the SPSS PROCESS Macro (Hayes, 2017). Bias-corrected bootstrap 95% confidence intervals were estimated to test the significance of the index

of moderated mediation. This index represents the effect of the moderator on the indirect effect, and its value signifies the amount of change in the indirect effect of the mediator for each one-unit increase in the moderator.

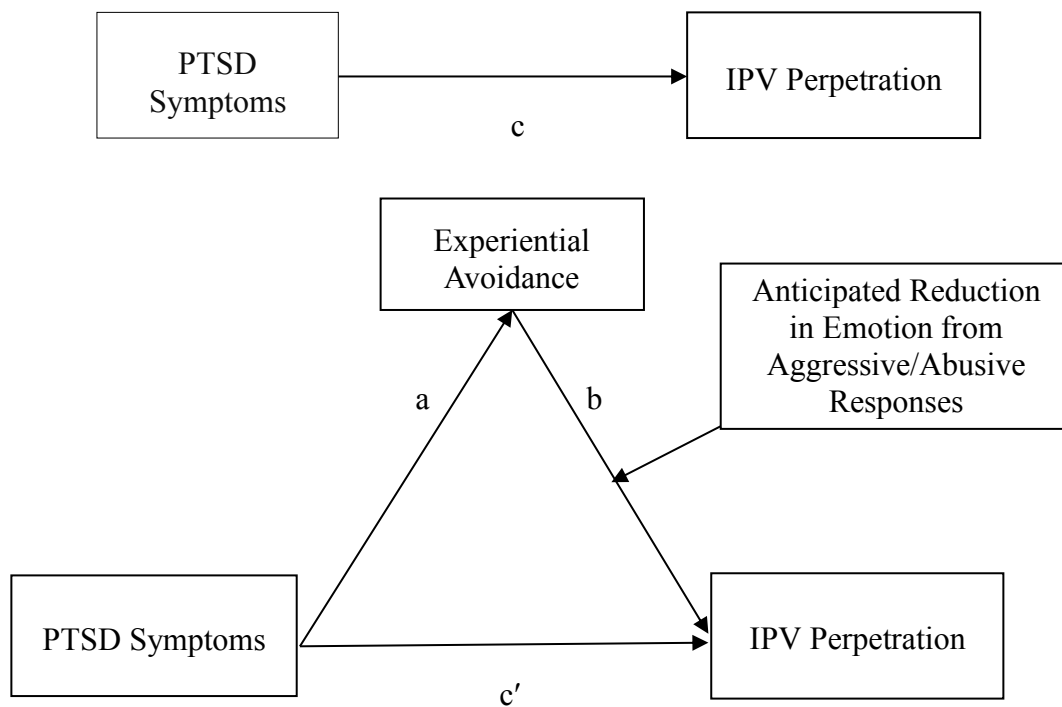


Figure 2. Anticipated reduction in emotion from aggressive/abusive responses as a moderator of the mediating effect of experiential avoidance between PTSD symptoms and IPV perpetration

Results of the moderated mediation analyses are displayed in Table 22. Contrary to hypotheses, anticipated reduction in emotion did not significantly moderate the mediating effect of experiential avoidance between PTSD symptoms and any of the IPV perpetration variables.

Table 22

Results of Moderated Mediation Analyses

Mediator	Outcome	Index of Moderated Mediation (<i>SE</i>)	95% CI of Index of Moderated Mediation
EARS EA	Physical Assault	-.0001 (.0003)	-.0009 to .0004
EARS EA	Sexual Coercion ^a	.000007 (.000022)	-.000038 to .000049
EARS EA	Emotional Abuse	-.0002 (.0004)	-.0010 to .0005
MEAQ EA	Physical Assault	-.0005 (.0004)	-.0013 to .0002
MEAQ EA	Sexual Coercion ^a	-.000013 (.000029)	-.000080 to .000037
MEAQ EA	Emotional Abuse	.0000 (.0005)	-.0009 to .0012

Note. Bias-corrected 95% CIs were calculated on the basis of 5,000 bootstrap samples.

Abbreviations: EARS, Experiential Avoidance in Relationship Situations; MEAQ, Multidimensional Experiential Avoidance Questionnaire; EA, experiential avoidance; CI, Confidence Interval. All abuse variables reflect Lifetime Variety scores.

^a. Log-transformed (2 extra decimals used due to change in scale)

Hypothesis 6: *There will be a positive association between anticipated reduction in negative mood states and likelihood of engaging in each response to the relationship scenarios.*

For each potential action in the EARS, participants first rated how much they believed the action would reduce their negative emotions, and then rated how likely they believed they would enact that response if the situation had happened to them. It was expected that these ratings would be significantly positively associated with one another. This was first examined via bivariate correlations between anticipated reduction in emotion and perceived likelihood for the

total scores of aggressive/abusive ($r = .81, p < .001$) and non-aggressive/non-abusive ($r = .82, p < .001$) responses, which supported the hypothesis.

Next, in order to better utilize item-level data, multilevel modeling was used to examine this association. Specifically, data were analyzed using multilevel modeling techniques in SPSS 25.0 using the MIXED procedure. Model specification followed procedures outlined by Peugh and Enders (2005) for cross-sectional data. First, an unconditional means model was estimated in order to examine the amount of variability in outcome scores (i.e., perceived likelihood of enacting a behavioral response) that can be attributed to each level. For this initial model, there were three levels to the data, with items (Level 1) nested within relationship situations (Level 2), and relationship situations nested within participants (Level 3). As shown in Table 23, there was significant variance at the item level ($ICC = .90$) and participant level ($ICC = .09$). However, there was not significant variance at the relationship situation level ($ICC = .01$). As recommended when ICCs fall below .05 (Thomas & Heck, 2001), the relationship situation level was then removed from the model. Consequently, in all subsequent models, Level 1 represents the item level, and Level 2 represents the participant level.

Table 23

Multilevel Model Analyses: Unconditional Means Model.

Fixed Effects	<i>b</i>	<i>SE</i>	<i>t</i>
Intercept	4.62	0.19	24.34**
Random Effects	Variance Component	<i>SE</i>	Wald Z
Level 1 (Item)			
Residual	15.69	0.52	30.41**
Level 2 (Situation)			
Intercept	0.12	0.13	0.97
Level 3 (Participant)			
Intercept	1.60	0.32	4.95**

Note. $n = 30$ at the item level (6 response options across 5 scenarios); $n = 5$ at the relationship situation level, and $n = 74$ at the participant level.

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

Next, to test Hypothesis 6, anticipated reduction in emotion was entered as a Level 1 predictor, and random effects for this variable were examined. Results are displayed in Table 24. Consistent with the hypothesis, anticipated reduction in emotion was a significant predictor of the perceived likelihood of enacting a behavioral response. Notably, slope variance of anticipated reduction in emotion was also significant, justifying examination of interactions with this variable in Hypothesis 7.

Table 24

Multilevel Model Analyses: Anticipated Reduction in Emotion as Predictor of Perceived Likelihood of Enacting a Behavioral Response.

Fixed Effects	<i>b</i>	<i>SE</i>	<i>t</i>
Intercept	1.44	0.19	7.64**
Anticipated Reduction in Emotion	0.71	0.03	24.89**

Random Effects	Variance Component	<i>SE</i>	Wald Z
Level 1 (Item)			
Residual	7.22	0.22	32.15**
Level 2 (Participant)			
Intercept	2.05	0.44	4.62**
Slope	0.04	0.01	4.40**
Intercept x Slope Covariance	-0.25	0.06	-4.18**

Note. $n = 30$ at the item level, and $n = 74$ at the participant level.

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

Hypothesis 7: *The association in Hypothesis 6 will be moderated by PTSD symptoms and experiential avoidance, such that it will be strengthened at higher levels of these variables.*

In order to test this hypothesis, two new multilevel models were estimated: one in which PTSD symptoms and their interaction with anticipated reduction in emotion were included, and one in which EARS experiential avoidance and its interaction with anticipated reduction in emotion were included. For these analyses, Level 2 predictors (i.e., PTSD symptoms and experiential avoidance) were grand mean centered, and the Level 1 predictor (i.e., anticipated reduction in emotion) was centered within participants. This is recommended when examining an interaction across levels, because centering within participants removes between-participant variation from the Level 1 variable, promoting a clearer test of the moderation effect (Enders & Tofghi, 2007).

Results of analyses with PTSD symptoms as a moderator are presented in Table 25.

Contrary to hypotheses, PTSD symptoms did not significantly influence the slope of anticipated reduction in emotion on perceived likelihood of enacting a behavioral response.

Table 25

Multilevel Model Analyses: Moderating Effect of PTSD Symptoms.

Fixed Effects	<i>b</i>	<i>SE</i>	<i>t</i>
Intercept	4.619	0.163	28.35**
Anticipated Reduction in Emotion	0.703	0.030	23.74**
PTSD Symptoms	0.042	0.010	4.33**
Anticipated Reduction in Emotion x PTSD Symptoms	-0.002	0.002	-1.14
Random Effects	Variance Component	<i>SE</i>	Wald Z
Level 1 (Item)			
Residual	7.20	0.22	32.20**
Level 2 (Participant)			
Intercept	1.73	0.33	5.27**
Slope	0.05	0.01	4.37**
Intercept x Slope Covariance	-0.23	0.04	-0.53

Note. $n = 30$ at the item level, and $n = 74$ at the participant level. Abbreviations: PTSD,

posttraumatic stress disorder.

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

Results of analyses with experiential avoidance as a moderator are presented in Table 26. Contrary to expectations, there was a significant moderating effect in the opposite direction than hypothesized. Specifically, at higher levels of experiential avoidance, the slope of anticipated reduction in emotion decreased. This interaction effect is depicted in Figure 3, with slopes of anticipated reduction in emotion at the mean, 1 SD above the mean, and 1 SD below the mean in experiential avoidance.

Table 26

Multilevel Model Analyses: Moderating Effect of Experiential Avoidance.

Fixed Effects	<i>b</i>	<i>SE</i>	<i>t</i>
Intercept	4.619	0.171	27.02**
Anticipated Reduction in Emotion	0.705	0.028	25.58**
PTSD Symptoms	0.239	0.074	3.24*
Anticipated Reduction in Emotion x Experiential Avoidance	-0.041	0.012	-3.40*
Random Effects	Variance Component	<i>SE</i>	Wald <i>Z</i>
Level 1 (Item)			
Residual	7.21	0.22	32.19**
Level 2 (Participant)			
Intercept	1.92	0.36	5.33**
Slope	0.04	0.01	4.08**
Intercept x Slope Covariance	0.00	0.01	0.03

Note. $n = 30$ at the item level, and $n = 74$ at the participant level.

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

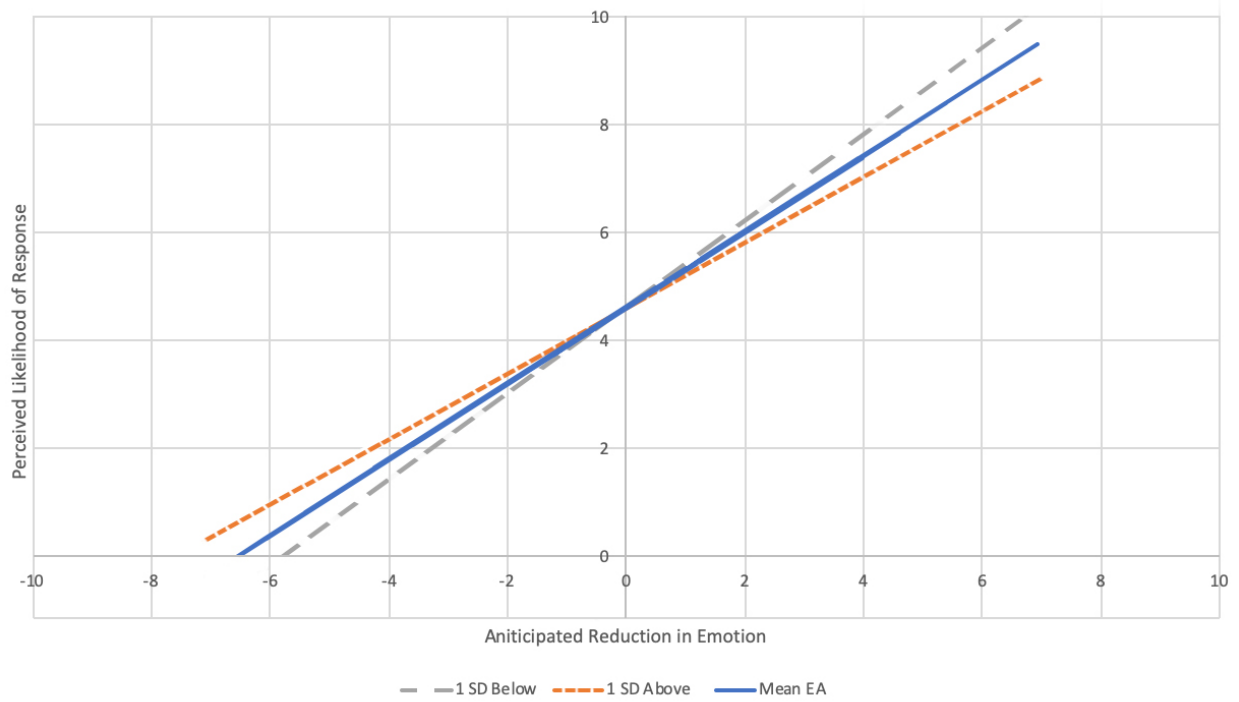


Figure 3. EARS experiential avoidance as a significant moderator of the relationship between anticipated reduction in emotion (centered within participant) and perceived likelihood of response.

Chapter 5: Discussion

Past research has identified a number of social information processing (SIP) mechanisms that help explain the relationship between trauma exposure, PTSD symptoms, and IPV perpetration (e.g., Fite et al., 2008; LaMotte et al., 2017; Sippel & Marshall, 2011; Taft et al., 2008). Although PTSD is known to have significant implications for emotion regulation, research using the SIP model to explain the PTSD-IPV relationship has not investigated the role of emotions in detail. The purpose of the current study was to shed light on this relationship by examining experiential avoidance as a mediating variable between PTSD symptoms and IPV perpetration among a sample of men presenting for services at an AIP.

Interpretation of Findings

The first hypothesis of the study was that trauma exposure and PTSD symptoms would be associated with greater endorsement of negative mood states during distressing hypothetical relationship situations. This hypothesis was supported, with both trauma exposure and PTSD symptoms significantly positively correlated with anger, jealousy, sadness, anxiety, and the total negative emotion score. Experience of strong negative emotions is a prominent feature of PTSD (APA, 2013), and the current findings suggest that this also generalizes to distressing relationship situations. Anger and fear are the emotions that have received the most longstanding attention in PTSD theory and research (e.g., Horowitz & Solomon, 1975; Chemtob, Hamada, Roitblat, & Muraoka, 1994; Keane et al., 1985), and anger and anxiety were the emotions most strongly associated with PTSD symptoms in this study. It is notable that PTSD symptoms were associated with increased jealousy, as this is not an emotion commonly discussed in relation to PTSD. Jealousy represents a fear of loss and anticipation of betrayal (Parrott & Smith, 1993), and so this finding is consistent with prior studies showing that trauma and PTSD are associated

with hypervigilance to threat cues and increased mistrust of others' intentions (Armstrong, Bilsky, Zhao, & Olatunji, 2013; Gobin & Freyd, 2014; LaMotte et al., 2016). Overall, the findings indicate that those exposed to greater trauma and those with higher levels of PTSD symptoms experience more negative emotions in distressing relationship situations. This increased experience of negative emotions may then contribute to a greater need to reduce or avoid the emotions.

The second hypothesis of the study was that trauma and PTSD symptoms would be associated with greater experiential avoidance, measured both via a general trait measure and in the context of distressing relationship situations. This hypothesis was supported. Specifically, trauma exposure showed a moderate positive correlation with experiential avoidance measured with the EARS, and a non-significant correlation with trait experiential avoidance. PTSD symptoms were moderately and positively associated with both measures of experiential avoidance. These findings are consistent with prior theory and research indicating that PTSD entails efforts to avoid unwanted internal experiences, with this avoidance serving a key role in maintaining PTSD symptoms over time (e.g., Keane et al., 1985; Foa & Kozak, 1985; Seligowski et al., 2015). Much of this theory and research has focused on avoidance of trauma-related thoughts and emotions, but a couple of past studies have found a connection between PTSD symptoms and avoidance of negative emotions in general (Frewen et al., 2010; Naifeh, Tull, & Gratz, 2012). Findings of the current study bolster the claim that emotional avoidance in PTSD is not limited to trauma-reminders.

Additionally, this is the first study to demonstrate a connection between trauma, PTSD symptoms, and experiential avoidance specifically in the context of distressing relationship situations. Although these correlations were not statistically compared with one another, the

association with trauma appeared larger for experiential avoidance measured with the EARS than the MEAQ. One difference between these measures was that the EARS assessed the desire to immediately reduce negative emotions after imagining oneself in distressing relationship situations. This contrasts with the MEAQ, in which participants were asked about their general tendencies with emotions. The MEAQ also assessed aspects of general experiential avoidance that the EARS did not assess (e.g., procrastination, denial). It is possible that trauma-related differences in experiential avoidance are more perceptible when the person is thinking about specific situations that evoke negative emotions than when thinking about their general view of themselves. Alternatively, trauma-related differences in experiential avoidance may be unique to the context of close relationships, which often involve significant feelings of vulnerability (Cordova & Scott, 2001). Overall, the finding that PTSD symptoms were associated with both measures of experiential avoidance suggests the robust nature of this relationship.

The third, and primary, hypothesis of the study was that experiential avoidance would mediate the relationship between PTSD symptoms and IPV perpetration. This hypothesis was partially supported. Experiential avoidance measured with the EARS and MEAQ significantly mediated the relationship between PTSD symptoms and lifetime emotional abuse perpetration, but not physical assault or sexual coercion perpetration. The findings with regard to emotional abuse are consistent with the theory tested in this study that PTSD is associated with deficits at the *goals clarification* stage of the SIP model (Crick & Dodge, 1994), which then increases one's propensity to use abusive behaviors in relationships. In other words, a person with elevated PTSD symptoms is more likely to view immediate emotion reduction as a primary goal during difficult relationship situations, and is then more likely to engage in abusive behaviors (e.g., confronting their partner for flirting, yelling at their partner, violating their partner's privacy) to

reduce the experience of negative emotion. This idea is in line with the clinical literature on PTSD, in which a common posttraumatic belief is that, if the person experiences a distressing emotion, they “will not be able to handle it” or “will lose control completely” (Resick et al., 2017, p. 193). Perhaps related to this low self-efficacy for coping with negative emotions (Benight & Bandura, 2004), the avoidance symptoms that maintain PTSD represent an overreliance on the strategy of controlling one’s outside environment in order to reduce the potential for emotional distress. For example, a person with PTSD may stay at home to avoid the anxiety experienced when outside in a crowd or refrain from emotional disclosure to reduce interpersonal vulnerability. Abusive relationship behaviors may similarly be conceptualized as harmful attempts to control one’s outside environment in order to avoid the experience of negative emotions.

Whereas the mediation results with emotional abuse supported predictions from the SIP model, results with physical assault and sexual coercion did not. Relatedly, PTSD symptoms were not as strongly predictive of physical and sexual IPV compared to emotional abuse perpetration, which is consistent with prior research (Maguire et al., 2015; Miles-McLean et al., 2019; Semiatin et al., 2017). Participants reported lower overall levels of physical assault and sexual coercion than they did emotional abuse, and this may have made it more difficult to find effects. Alternatively, it may be that experiential avoidance, operating at the *goals clarification* stage, is particularly relevant to emotional abuse perpetration, whereas deficits at other stages of the social information processing model are more relevant to physical assault perpetration (e.g., hyperactive threat perception at early SIP stages; LaMotte et al., 2016; Sippel & Marshall, 2011) and sexual coercion perpetration (e.g., perceptions of social norms for sexually aggressive behaviors influencing *response decision*; Dardis, Murphy, Bill, & Gidycz, 2016). Further

research is needed to disentangle the potential differences in SIP risk factors for different forms of IPV perpetration. Null findings with respect to physical and sexual IPV are indicative of the complicated system of influences on IPV behaviors, and highlight that anticipated reduction in emotion is not the only SIP factor driving response decisions.

The fourth hypothesis of this study was that participants would show a general tendency to rate aggressive/abusive actions as more likely to reduce negative mood states in distressing relationship situations, compared to non-aggressive/non-abusive actions. Contrary to expectations, participants reported overall that non-aggressive/non-abusive actions (e.g., cognitive reframing, deep breathing, emotional expression) were more likely than aggressive actions to reduce their negative mood states. This indicates that even men presenting for AIP services predominantly recognize that aggressive/abusive responses will be less effective in modulating their emotions than the strategies promoted by cognitive behavioral treatment for IPV (Murphy & Scott, 1996). It remains possible that this population differs from non-violent men in the extent to which they perceive aggression/abuse as an effective way to reduce negative mood states. For example, past research has found that partner-violent men report more positive and fewer negative expected consequences of IPV than do non-violent men (Riggs & Caufield, 1997). However, the current study was not able to test this idea directly because it did not include a matched sample of men who had not perpetrated IPV. Of note, anticipated reduction of emotions from non-aggressive/non-abusive actions was positively correlated with physical assault and emotional abuse perpetration. This is consistent with the idea that a person can have a problem with aggression even if aggressive responses are not the first responses generated.

The fifth hypothesis of the study was that the mediating effect of experiential avoidance between PTSD symptoms and IPV perpetration would be moderated by the belief that

aggressive/abusive responses will reduce negative mood states. It was expected that the relationship between experiential avoidance and IPV perpetration would be stronger for those who held stronger beliefs in the mood-repairing properties of aggression/abuse. This hypothesis was not supported. One possible explanation arises from the idea that belief in the mood-repairing properties of aggression represents a deficit at a later stage of SIP than does experiential avoidance. Specifically, it may represent a deficit at the *response evaluation* stage, which involves weighing outcome expectancies, contrasting with the effects of experiential avoidance at the *goals clarification* stage, in which immediate emotion reduction is prioritized over other goals (Crick & Dodge, 1994). It makes theoretical sense that each progressive stage of SIP would moderate the effects of the previous stages. For example, a person's propensity to perceive others' intentions as hostile (i.e., an early-stage deficit) may not lead to aggressive behaviors if they also believe that aggression is not likely to accomplish their interpersonal goals in response to the perceived hostility (i.e., a later-stage skill). Alternatively, each stage of SIP may function as independent predictors of IPV perpetration. This latter conceptualization is more consistent with the findings of the current study, in which beliefs about the mood-repairing properties of aggression were positively associated with both PTSD symptoms and lifetime emotional abuse perpetration, but did not affect the mediating role of experiential avoidance.

The finding that PTSD symptoms were associated with a stronger belief in the mood-repairing properties of aggression/abuse is especially interesting, as this is an aspect of SIP that has received limited theoretical and research attention with respect to PTSD. One recent study (LaMotte, Miles-McLean, Williams, & Murphy, in preparation) found that PTSD symptoms were associated with greater positive outcome expectancies of IPV perpetration among a sample of men presenting to an AIP. Some particular types of traumatic events, such as witnessing

interparental abuse during childhood, may directly model aggressive responses. For example, Fite and colleagues (2008) found that adolescents who had witnessed greater inter-parental IPV in childhood generated more aggressive responses and evaluated aggressive responses more positively during social vignettes. Other potential explanations for this relationship have not been thoroughly explored. For instance, positive views of aggression may relate to hyperactive threat perception in PTSD (Chemtob et al., 1997), whereby mistrust of others' intentions contributes to the general view that aggression is necessary in order to protect oneself. Additionally, as trauma can disrupt one's prior beliefs about justice in the world (Resick et al., 2017; Tay et al., 2017), aggression may be viewed favorably by those with PTSD as a means to enact one's own perceived justice and correct perceived injustice. It will be beneficial for future research to explore the over-valuing of aggression by people with PTSD, given that this study's findings demonstrate its relevance to emotional abuse perpetration.

The sixth hypothesis of the study was that, during hypothetical relationship scenarios, participants' anticipated reduction of negative emotions would be strongly associated with their perceived likelihood of enacting each response. This hypothesis was supported, with a strong association found between these variables. This finding bolsters the idea that anticipated reduction of negative emotions is an important motivator in planned responses to hypothetical relationship situations. This is consistent with past research indicating that anticipated emotion is a key predictor of behavior (DeWall, Baumeister, Chester, & Bushman, 2016; Bushman et al., 2001). It is important to note that some of this association may be attributable to common-method variance, given that these variables were rated on the same response scale, and participants may have used information from their prior responses to inform later ones. For example, if a participant rated "taking several deep calming breaths" as an 8 for anticipated

reduction of emotion, they may remember this response-number association and use a similar rating for the perceived likelihood of engaging in this behavior, provided shortly after the first response. Additionally, perceived likelihood of responses in hypothetical relationship scenarios may differ from one's actual behavior in real-life situations. However, this study did find significant positive correlations between one's perceived likelihood of enacting aggressive/abusive responses on the EARS and lifetime history of all three forms of IPV perpetration, supporting the ecological validity of this variable.

The seventh and final hypothesis of the study was that PTSD symptoms and experiential avoidance would moderate the relationship between anticipated reduction in emotion and perceived likelihood of enacting a response. Specifically, it was expected that this relationship would be stronger at higher levels of these moderating variables. This hypothesis was not supported. PTSD symptoms did not emerge as a significant moderator, and experiential avoidance was a significant moderator in the opposite direction than expected: for those who reported greater experiential avoidance, anticipated reduction in emotion was less strongly related to the perceived likelihood of enacting the response. This finding is counterintuitive, because the more someone wants to immediately reduce their negative emotions, the more their anticipated reduction in negative emotion would be expected to dictate their behavior. One logical interpretation of this finding is that people higher in experiential avoidance are more likely to engage in behaviors that will only marginally help reduce their negative emotions. In other words, for those higher in experiential avoidance, the need to reduce negative emotions is so strong that they are more inclined to engage in any behaviors that would help do so, regardless of how much they would help. This would then attenuate the relationship between anticipated reduction of emotion and perceived likelihood, consistent with the pattern found in this study.

Conversely, high experiential avoidance might simply reflect greater overall problems with effective emotion regulation, whereby a person is then less likely to engage in behaviors that will help reduce their negative emotions. Consistent with prior research has demonstrated associations between experiential avoidance and emotion regulation problems, including lower use of cognitive reappraisal, an adaptive emotion regulation strategy (Iverson et al., 2012; Wolgast, Lundh, & Viborg, 2013).

Limitations

It is important to consider the study's findings in light of several limitations. First, the total number of participants in the study was lower than initially proposed, which reduced statistical power to detect effects. For example, a larger N may have improved the ability to detect a significant mediational effect of experiential avoidance for physical assault and sexual coercion perpetration. Increased statistical power is particularly needed for more complex analyses, such as the moderated mediation tested in Hypothesis 5. Nonetheless, there was no evidence of a trend for this hypothesis, suggesting that a larger N may still not have led to a significant effect.

Another significant limitation of the current study relates to the temporal ordering of the variables. A key assumption of causal models such as the one hypothesized in this study is temporal precedence. Specifically, the independent variable is presumed to occur first, followed by the mediating variable, and then the outcome variable. The current study was cross-sectional, and as a result, was not able to address the potential temporal ordering of the variables. In particular, the outcome variable reflected lifetime IPV perpetration, leaving the possibility that this included IPV perpetration that occurred prior to the onset of PTSD symptoms and related experiential avoidance. Lifetime abusive behavior was used as the outcome because a sizeable

portion of sample (32.4%) had not been in a relationship in the prior six months, and this factor was strongly associated with past six-month frequency of abuse. This concern with temporal ordering could partially be addressed in future research with an inclusion criterion of current or recent relationship status and examining past six-month abuse. However, in order to completely address the issue of temporal ordering, a prospective longitudinal study would be needed, with participants enrolling prior to onset of trauma, PTSD symptoms, and IPV perpetration. Although one prior study on this topic has addressed temporal ordering by assessing trauma among children at age 5 and then their IPV perpetration during relationships in early adulthood (Fite et al., 2008), this is uncommon due to logistical challenges. Prospective studies on IPV perpetration also present ethical challenges with respect to monitoring but not intervening with ongoing abuse. Some trauma exposures measured in the current study (i.e., trauma during childhood) logically occurred before the onset of IPV perpetration. Nevertheless, lack of evidence of temporal precedence in the current study represents a limitation in testing the causal model hypothesized.

Another drawback of the current study was the reliance on the participant for information regarding their own IPV perpetration. Past studies have indicated relatively low levels of inter-partner agreement about IPV behaviors (Marshall, Makin-Byrd, Taft, & Holtzworth-Munroe, 2011; O’Leary & Williams, 2006; Simpson & Christensen, 2005), and men presenting for treatment at an AIP may be particularly motivated to minimize the extent of their IPV perpetration. As a result, past research with this population has bolstered findings by obtaining partners’ independent perspectives on the frequency of the abuse (e.g., Semiatin, Murphy, & Elliott, 2012; Murphy et al., 2007). This was not done in the current study due to practical constraints. Nevertheless, the vast majority of participants reported perpetrating at least one

instance of physical assault (83.8%) and emotional abuse (93.2%) and both frequency and variety reports reflected extensive abuse, suggesting that participants generally felt comfortable reporting abusive behavior. Participants were assured during the research consent process that their responses would not be shared with the AIP, which may have promoted more honest reporting. Still, inclusion of partner reports of abusive behavior would have augmented the evidence of significant relationships found in the study. Reliance on self-report also was a limitation in measuring trauma exposure, which involved retrospection, and PTSD symptoms, which may have been captured more precisely using an in-depth clinical interview.

Similarly, the extent to which participants gave honest responses on the EARS is unclear. It seems likely that participants were aware of the apparent differences between aggressive/abusive and non-aggressive/non-abusive responses on the EARS, potentially giving the impression of a “correct” and “incorrect” choice. Susceptibility to social desirability bias was not assessed as part of the measure, and so it remains possible that this had an influence on how participants responded. For example, someone with high levels of this bias would likely rate aggressive actions as unhelpful for reducing negative mood states, even when this is not what they truly believe. Variance in social desirability bias among participants has the potential to contribute noise to the EARS variables, making it more difficult to find associations with other variables. A related limitation is that participants were asked on the EARS to imagine themselves in each situation, and there may be meaningful differences between what they report they would do and what their actual actions might be. This limitation is evidenced by the positive correlation found between physical and sexual IPV and perceived likelihood of using non-aggressive/non-abusive actions in the scenarios.

Other limitations of the study relate to potentially influencing factors that were not assessed. First, the protocol did not assess for prior participation in an AIP, which may have influenced participants' responses on the EARS. Additionally, the possible influence of the order of responses on the EARS was not examined and was not randomized for the study. It may be that hearing non-aggressive/non-abusive responses before aggressive/abusive responses alters perceptions of both. Furthermore, participants may have had differing interpretation of some response options. For instance, responses to the item "calmly telling my partner that her actions were hurtful" could be influenced by variability in what participants perceive as "calm." The degree of consensus between participants could be examined in future research by asking them open-ended questions about their interpretations of the items.

Finally, a limitation inherent in most research is the extent to which the findings can be generalized to broader populations. All data for the study were gathered at a specific AIP serving the population of Baltimore. All participants were men, and the vast majority of participants identified as African American (86.5%) and heterosexual (98.6%). Considering that prior research on PTSD symptoms, social information processing deficits, and IPV perpetration has largely focused on European Americans (e.g., LaMotte et al., 2017; Taft et al., 2008; Sippel & Marshall, 2011), it is a strength that this study examined these relationships among a primarily African American sample. At the same time, it is important to consider any ways in which the findings may or may not generalize to other populations. This sample was characterized by a high level of trauma related to community violence, and had a substantially higher rate of probable PTSD than found in prior clinical samples of partner violent men (Hoyt et al., 2012; Rosenbaum & Leisring, 2003; Semiatin et al., 2017) and in the general population (Kessler et al., 2005). As a result, research with clinical populations that have low levels of PTSD symptoms

may not find the same effects as those found in this study. Social information processing is not only influenced by trauma experiences, but also broader learning processes (Crick & Dodge, 1994) such as socialization, which can vary by gender and race/ethnicity. For example, boys are often socialized not to express emotions other than anger, whereas girls are often socialized to express happiness and internalizing negative emotions such as sadness and anxiety (Chaplan, 2015). Other research suggests that African American parents, relative to European American parents, tend to show both greater celebration and restriction of their children's emotional expression depending on the context, which is an adaptive response to environments of varying hostility and discrimination (Labella, 2018). Differences in socialization practices related to gender, racial/ethnic identity, and other aspects of identity may potentially alter the influence of traumatic experiences on social information processing, and further research is needed to determine the extent to which the findings of this study generalize to populations with distinct characteristics.

Clinical Implications

Increased recognition of trauma as a risk factor for IPV perpetration has coincided with increased interest in trauma-informed IPV intervention services (Taft, Murphy, & Creech, 2016). Trauma-informed services encompass an organizational cultural that acknowledges the effects of trauma on the population receiving treatment, advocates for empathic and supportive practices, strives to prevent re-traumatizing clients, and provides treatment that directly addresses the psychological sequelae of trauma (Elliott et al., 2005; Substance Abuse and Mental Health Services Administration 2014). The current study promotes trauma-informed IPV intervention by identifying the emotional processing consequences of PTSD symptoms and their relevance to

abuse perpetration. This research will hopefully translate into IPV intervention materials that directly target experiential avoidance.

Currently existing IPV intervention models address experiential avoidance to varying degrees. The two most prominent intervention models currently in practice in the United States are the Duluth and Cognitive Behavioral Therapy (CBT) approaches (Cannon, Hamel, Buttell, & Ferriera, 2016). Developed by Pence and Paymar (1993), the Duluth model stems from a feminist-sociocultural analysis of IPV indicating that men's IPV functions to maintain their power and control over women, and intervention strategies focus on increasing men's consciousness of gender oppression, reducing their justifications for use of power and control tactics, and promoting their accountability for abusive behavior (Murphy & Eckhardt, 2005). The Duluth perspective treats the idea of focusing on psychological risk factors such as mental health problems and trauma experiences with skepticism, arguing that doing so may provide men with a means to excuse their abusive behavior (Adams, 1988; Pence & Paymar, 1993). Consequently, Duluth model programs do not currently include experiential avoidance as a treatment target.

CBT approaches to IPV (e.g., Murphy & Eckhardt, 2005) examine the function of IPV perpetration for the individual and attempt to address common risk factors such as anger problems, poor communication skills, and distorted thinking patterns. Therapy materials for this approach include cognitive reframing of anger-related thinking, taking "time outs" to prevent abuse during conflict escalation, relaxation strategies, and practicing communication skills such as active listening and emotional expression (Murphy & Eckhardt, 2005). CBT interventions for IPV partially address experiential avoidance through practicing skills with identifying, labeling, and expressing emotional experiences in a healthy way. Additionally, the use of "time outs" (i.e., removing oneself from escalating conflict to calm down before returning to discuss the problem)

promote the idea of sitting with negative emotions and using self-soothing strategies rather than engaging in abusive behaviors. At the same time, CBT interventions for IPV do not directly discuss the importance of accepting the experience of negative emotions and do not focus on altering problematic beliefs about the experience of emotions themselves (e.g., “if I experience this emotion, it will be unbearable”). Beliefs that promote experiential avoidance are directly challenged in other treatment modalities, such as Cognitive Processing Therapy (CPT; Resick et al., 2017) for PTSD, and this practice may be useful to incorporate in CBT interventions for IPV in order to better target experiential avoidance.

The *Strength at Home* program is a CBT-based trauma-informed IPV intervention program designed for military veterans. Similar to other CBT programs for IPV perpetration, it places heavy emphasis on relationship skills, some of which address experiential avoidance (e.g., self-monitoring anger, taking “time outs” during emotional situations, expressing emotions in a healthy way; Taft, Murphy, & Creech, 2017). Unlike other CBT interventions for IPV, it also focuses on clients’ trauma histories and how these experiences have influenced their relationship functioning. Notably, a study by Berke and colleagues (2017) found that participants randomized to receive the *Strength at Home* program, relative to an enhanced treatment as usual condition, reported significantly greater reductions in alexithymia (i.e., difficulty identifying and describing emotions) over time. This study indicates that clinical discussion about the effects of trauma and practice of CBT skills can help reduce emotional difficulties closely related to experiential avoidance. Findings of the current study explicate the important role of experiential avoidance in the link between trauma and IPV perpetration, and trauma-informed IPV interventions such as *Strength at Home* may further benefit clients through treatment materials directly focused on understanding and reducing experiential avoidance.

Additional therapeutic strategies such as mindfulness meditation and distress tolerance may help target experiential avoidance in IPV interventions. Third-wave CBT therapies that highlight these strategies such as Dialectical Behavior Therapy (DBT; Linehan, 2014) and Acceptance and Commitment Therapy (ACT; Hayes, Strosahl, & Wilson, 2012) have also recently been applied to IPV intervention. For example, Cavanaugh, Solomon, and Gelles (2011a) created a 2-hour Dialectical Psychoeducational Workshop (DPEW) for preventing IPV perpetration. A follow-up randomized controlled trial of DPEW (Cavanaugh, Solomon, & Gelles, 2011b) found that, compared to an initial anger management session, DPEW showed favorable outcomes, although this study was conducted with a sample of men in anger management, not IPV offenders. Fruzzetti and Levensky (2000) conceptualized an application of DBT principles to a full-length IPV intervention program and provided a case example. However, this intervention approach has not yet been investigated in a controlled trial.

In addition, Zarling and colleagues have developed and tested an ACT-based approach to IPV intervention (Zarling, Lawrence, & Marchman, 2015; Zarling, Bannon, & Berta, 2017). In the initial study (Zarling et al. 2015), they tested a 12-session ACT program to prevent IPV among a sample of adults seeking treatment for mental health problems. ACT sessions focused on identifying and counteracting emotional avoidance, as well as covering and practicing skills related to common ACT concepts such as acceptance, cognitive defusion, mindfulness, and value-driven behavior. Compared to a peer support group control condition, the ACT group showed significantly greater reductions in physical and psychological IPV. Furthermore, treatment group reductions in IPV were partially mediated by posttreatment levels of experiential avoidance and emotion regulation. These findings are consistent with those of the current study, and highlight the utility of targeting experiential avoidance for reducing IPV. An additional study

among IPV offenders compared 1,353 men non-randomly assigned to receive ACT for IPV to 3,707 men assigned to receive Duluth model and CBT model programs for IPV (Zarling et al., 2017). This study found that, despite having higher dropout rates, the ACT for IPV condition was associated with fewer IPV and general violence charges post-treatment.

Findings of the current study bolster the theoretical rationale for the application of third-wave CBTs for IPV by demonstrating the important role of experiential avoidance in abusive behaviors. Furthermore, these findings indicate that avoidance of negative emotional states is in part a function of trauma experiences and PTSD that are highly prevalent among this population (Hoyt et al., 2012; Maguire et al., 2015; Miles-McLean et al., 2019; Rosenbaum & Leisring, 2003; Semiatin et al., 2017). It may be clinically useful for treatment providers to help clients connect past traumatic experiences to their urgent need to reduce negative emotional states in order to better understand and counteract this problem. Additionally, this study found that both PTSD symptoms and emotional abuse perpetration were associated with a tendency to view aggressive responses as more likely to reduce negative emotions. Duluth and CBT intervention models primarily seek to alter clients' decisional balance for IPV (i.e., weighing pros and cons) by highlighting the negative long-term consequences of IPV and by promoting alternative strategies to reduce negative emotions that do not incur these consequences. However, the current finding suggests that it may also be useful for interventions to challenge beliefs in the utility of aggression directly.

This study also introduced a novel measure to assess experiential avoidance in relationship situations (the EARS). Although this study was not focused on evaluating measurement validity, the findings support the utility of the EARS among this population via correlations with PTSD symptoms, trauma exposure, IPV perpetration, and a trait measure of

experiential avoidance. Descriptive data from the measure highlight the range of emotions experienced by participants across different relationship situations. Notably, sadness was endorsed less strongly than anger, jealousy, and anxiety. Experiential avoidance in these situations was very common but there were also meaningful differences between individuals, as evidenced by associations with other variables. Participants generally believed that non-aggressive actions would be most helpful in reducing their negative emotions, with the most strongly endorsed items including cognitive reappraisal (e.g., “telling myself ‘I should trust my partner to do the right thing’”), relaxation strategies (e.g., taking deep breaths, removing oneself from the situation to calm down), and emotional expression (e.g., calmly expressing hurt feelings). At the same time, participants anticipated that several aggressive/abusive actions would strongly reduce their negative emotions, including confronting the partner for flirting, leaving for an important shared appointment without the partner, and making insulting or sarcastic remarks. On average, participants rated all situations as being highly realistic, and only a small proportion of participants rated each situation as entirely unrealistic, providing support for the ecological validity of the measure. The measure may be further strengthened by including a broader set of potential emotional reactions, adding a wider variety of situations, and replacing uncommonly endorsed responses with other more likely response options. Anecdotally, several participants reported that the EARS had caused them to think differently about their emotional reactions to difficult relationship situations. Thus, the EARS may prove useful for both assessing experiential avoidance and stimulating clinical discussion about it in AIP settings.

Directions for Future Research

This study’s findings suggest several interesting avenues for future research. First, while prior research on PTSD and IPV perpetration has focused on early-stage SIP deficits in

interpreting social cues and generating socially competent responses (LaMotte et al., 2017; Sippel & Marshall, 2011; Taft et al., 2008; Taft et al., 2015), the current study suggests that there are also PTSD-related deficits at the later *goals clarification* and *response evaluation* stages. Specifically, this study indicates that people with PTSD show a tendency to prioritize immediately reducing negative emotions and a tendency to overvalue the utility of aggressive responses in reducing negative emotions. These later SIP stages may be informed by the early-stage processes that have been examined in past research. For example, it is likely that early-stage cognitive biases (e.g., inferring hostile intent by the partner) fed into participants' high emotional reactivity and subsequent need to reduce negative emotions in response to the EARS. However, this was not assessed in the current study, and it would be helpful for future research to examine the interrelationships between several different SIP stages as they relate to both PTSD symptoms and IPV perpetration. Furthermore, it would be illuminating to determine whether there is a cumulative effect of biased SIP at several different stages, or conversely, a protective effect of adaptive SIP at certain stages (e.g., a person who is prone to infer hostile intent by others but is accepting of negative emotional experiences and believes that aggression will not help reduce these emotions). The current study did not find an interaction effect between variables at the *goals clarification* (i.e., experiential avoidance) and *response evaluation* (i.e., belief in mood-repairing properties of aggression) stages, but it is possible that these do interact with earlier stages.

Consistent with the idea of assessing multiple SIP stages, future studies could adapt and improve upon the EARS. For example, the measure could be tailored to assess perceptions of social norms (a component of response decision) by asking participants what they believe others might do in the situations. Several SIP measures developed for use with children and adolescents

assess multiple SIP stages within the same vignette and utilize a range of different methods, including the use of video and open-ended questions (e.g., de Castro, Merk, Koops, Veerman, & Bosch, 2005; Kupersmidt, Stelter, & Dodge, 2011). Adapting the EARS to employ some of these methods could address some of the limitations of the measure in the current study and answer other interesting questions about the nature of SIP deficits among this population.

Another interesting question that could be addressed in future research is the extent to which the SIP model and the variables measured in this study apply to reactive versus proactive forms of aggression. Reactive aggression occurs in response to perceived threats or frustrations in the presence of high physiological and affective arousal, whereas proactive aggression occurs in a more methodical or planful way, often in the absence of such physiological or affective arousal (Chase, O’Leary, & Heyman, 2001). A central idea of the model tested in this study is that people with PTSD are more likely to perpetrate IPV because they feel an urgent need to reduce negative emotional states, which is more in line with reactive forms of aggression. However, this study did not distinguish between these forms of aggression. Some research with adolescents suggests that different SIP stages may be relevant for reactive and proactive aggression, with hostile intent attribution corresponding more closely with the former and response evaluation (de Castro et al., 2005). Researching this question among adults would be informative for better understanding how SIP can be used to understand different types of aggression.

It will also be beneficial for future studies to explicate the phenomenon of emotional avoidance in PTSD. While most cognitive-behavioral theories of PTSD describe the key role of avoiding trauma-reminders (Keane et al., 1985; Foa & Kozak, 1985; Ehlers & Clark, 2000), little research has investigated the avoidance of negative emotions more broadly. Self-efficacy for

coping with negative emotions appears to be an important concept. For example, certain maladaptive trauma-related thoughts described in CPT (Resick et al., 2017) have to do with the person's perceived ability to handle emotions (e.g., "if I get emotional, I will be out of control," p. 226). Cieslak, Benight, and Lehman (2008) found that coping self-efficacy mediated the relationship between posttraumatic cognitions and PTSD symptoms in both cross-sectional and longitudinal samples. Relatedly, with a non-clinical online sample, De Castella, Platow, Tamir, and Gross (2018) found that a perceived lack of control over emotions predicted poorer psychological health outcomes, and this was mediated by avoidance-based emotion regulation strategies. Although the current study assessed PTSD symptoms and experiential avoidance in the context of distressing relationship situations, it did not assess beliefs about one's coping self-efficacy that may be related to this experiential avoidance. It would be valuable for future studies to examine this relationship, as self-efficacy for coping with negative emotions may represent a modifiable treatment target to reduce experiential avoidance. For example, interventions may improve coping self-efficacy via teaching skills relevant to effective coping (e.g., identifying and describing one's emotions, planning and practicing alternative responses to difficult relationship situations), as well as challenging negative self-talk about one's ability to cope with emotions (e.g., reviewing examples of times when the individual was able to cope with difficult emotions without becoming abusive or violent).

Another area for future investigation is the extent to which SIP deficits change over the course of IPV intervention, and whether these changes correspond to lower IPV recidivism post-treatment. Only a single study with a small *N* has examined changes in SIP variables over the course of IPV intervention, finding a greater reduction in irrational beliefs and hostile attributions for those in group than individual therapy (Murphy, Eckhardt, Clifford, LaMotte, &

Meis, 2017). This study also found that group therapy, compared to individual therapy, was associated with favorable IPV outcomes, suggesting that changes in SIP variables and IPV variables are related to one another, although this was not tested directly. Further research in this area could help identify which stages of the SIP model current IPV interventions address, and which are not as affected by these interventions. One challenge in doing this research is that common assessments of SIP such as the Articulated Thoughts in Simulated Situations (Davidson, Robins, & Johnson, 1983) and Problematic Marital Situation Vignettes (Holtzworth-Munroe & Anglin, 1991) may involve practice effects, and so different situations may be needed at different assessment time points. This is a fruitful avenue for future research because it has the potential to uncover the mechanisms of change in IPV intervention programs and could eventually be used to understand the differential effectiveness of different therapeutic techniques.

Summary and Conclusions

There is a growing body of research dedicated to understanding how traumatic experiences and PTSD symptoms contribute to IPV perpetration risk, and the current study makes several unique contributions to this literature. First, it provides preliminary support for a novel measure of experiential avoidance in the context of distressing relationship situations. Data indicated large variability in the degree to which participants: 1) experienced negative emotions, 2) had the urge to immediately reduce these emotions, 3) believed that aggressive and non-aggressive behaviors would reduce these emotions, and 4) perceived themselves as likely to engage in aggressive and non-aggressive behaviors. Findings from this novel measure also extended prior research on PTSD-related SIP deficits and IPV perpetration. Whereas past studies on this topic have primarily focused on early-stage SIP deficits (LaMotte et al., 2017; Sippel & Marshall, 2011; Taft et al., 2008; Taft et al., 2015), this study found that PTSD symptoms were

associated with later-stage deficits such as prioritizing the goal of immediate emotion reduction and overvaluing aggression as a means of reducing negative emotions. These SIP deficits were then associated with greater perpetration of emotional abuse in relationships.

Another key contribution of the current study was the identification of very high rates of trauma and PTSD among a sample of under-employed African American men presenting for AIP services. The rate of probable PTSD found in this study (45.9%) was 13 times that of 12-month PTSD prevalence (3.5%) found in epidemiological research in the U.S. (Kessler et al., 2005). This finding highlights the need for trauma-informed IPV intervention services, particularly among marginalized populations. Additionally, the fact that some hypotheses were not supported helps to isolate the specific ways in which experiential avoidance may be involved in partner abuse. For example, the belief that aggression would repair one's negative mood did not moderate the mediating effect of experiential avoidance on IPV perpetration, but was significantly associated with PTSD symptoms and emotional abuse perpetration. This finding suggests that perhaps deficits at different SIP stages are better conceptualized as independent predictors of IPV perpetration, which can be evaluated in future research.

Findings of this study hold several important implications for understanding and preventing IPV. Results suggest that trauma and PTSD symptoms increase one's risk of emotional abuse perpetration in part by promoting a greater need to immediately reduce negative emotions. Experiential avoidance should be considered a key treatment target for trauma-informed IPV interventions. A number of intervention strategies may be helpful in these efforts, including skills training focused on identifying and describing emotions, emotional self-monitoring, mindfulness, and distress tolerance. Thus, study findings offer support for treatment modalities that are specifically designed to counteract experiential avoidance, such as ACT and

DBT. It may also be useful for counselors at IPV interventions to be attuned to clients' self-efficacy for appropriately coping with negative emotions, and to assist in building self-efficacy by challenging negative self-talk and providing positive examples of coping.

Belief in the emotional benefits of aggression is another PTSD-related risk factor identified in this study, and it represents a unique clinical challenge. Several IPV intervention models attempt to address positive views of aggression by emphasizing the negative consequences, but the best ways to target these beliefs have not been thoroughly researched. Overall, this study's findings join others in highlighting the extensive effects of trauma and PTSD on IPV risk, with the ultimate goal of refining interventions to better stop the cycle of trauma that is perpetuated through IPV.

Appendix A

Pilot Study EARS

Introducing the task: This activity involves listening to different relationship situations and answering questions about them. As best as you are able, please imagine yourself in the situation being described. You will be asked questions about your emotions in the situations and different possible responses. There are no right or wrong answers, please just try to answer as honestly as possible.

1. You and your partner are at a social gathering. You notice that your partner has been talking with an attractive person that you have never met before for almost half an hour. They seem to be having fun; both are laughing and smiling. Your partner seems very interested in what this person has to say. It appears that this person is flirting with your partner.

Think about things that you have experienced in relationships. How realistic does this story seem to you? On a scale from 0 to 10, where 0 is totally unrealistic and 10 is extremely realistic

Not at all Realistic											Extremely Realistic
0	1	2	3	4	5	6	7	8	9	10	

How much were you able to imagine yourself in the situation described? On a scale from 0 to 10, where 0 is not at all and 10 is completely.

Not at all Realistic											Extremely Realistic
0	1	2	3	4	5	6	7	8	9	10	

Was there anything about the situation that was unclear, didn't make sense or could be said in a better way?

Rate how much you would experience each emotion in the imagined situation just described:

Anger

Not at all

Angry

0

1

2

3

4

5

6

7

8

9

Extremely

Angry

10

Jealousy

Not at all

Jealous

0

1

2

3

4

5

6

7

8

9

Extremely

Jealous

10

Sadness

Not at all

Sad

0

1

2

3

4

5

6

7

8

9

Extremely

Sad

10

Anxiety

Not at all

Anxious

0

1

2

3

4

5

6

7

8

9

Extremely

Anxious

10

What other emotions might you be feeling?

Rate how much you would have the following reactions to these emotions:

I would want to get rid of these emotions as soon as possible:

Not at all

0

1

2

3

4

5

6

7

8

9

Completely

10

I would accept that it is okay for me to have these emotions:

Not at all

0

1

2

3

4

5

6

7

8

9

Completely

10

Rate how much you think each action **would help get rid of the emotions** that you feel in the situation:

1. Telling myself “It’s no big deal”

Not at all											Completely
0	1	2	3	4	5	6	7	8	9	10	

2. Confronting my partner and/or the other person for flirting

Not at all											Completely
0	1	2	3	4	5	6	7	8	9	10	

3. Distracting myself with an interesting conversation or game

Not at all											Completely
0	1	2	3	4	5	6	7	8	9	10	

4. Telling my partner “it’s time to go” and making us both leave the party

Not at all											Completely
0	1	2	3	4	5	6	7	8	9	10	

5. Having more to drink or using other substances to put it out of my mind

Not at all											Completely
0	1	2	3	4	5	6	7	8	9	10	

6. Start flirting with someone attractive, knowing that my partner might see

Not at all											Completely
0	1	2	3	4	5	6	7	8	9	10	

2. You tell your relationship partner something very personal and ask her not to discuss it with anyone else. However, a couple of weeks later, you find out that several other people know about it. You ask your partner why she told other people and she says, “I don’t know, it just came up and I didn’t think it was a big deal.”

Think about things that you have experienced in relationships. How realistic does this story seem to you? On a scale from 0 to 10, where 0 is totally unrealistic and 10 is extremely realistic

Not at all											Extremely
Realistic											Realistic
0	1	2	3	4	5	6	7	8	9	10	

How much were you able to imagine yourself in the situation described? On a scale from 0 to 10, where 0 is not at all and 10 is completely.

Not at all											Extremely
Realistic											Realistic
0	1	2	3	4	5	6	7	8	9	10	

Was there anything about the situation that was unclear, didn’t make sense or could be said in a better way?

Rate how much you would experience each emotion in the imagined situation just described:

Anger

Not at all

Angry

0

1

2

3

4

5

6

7

8

9

Extremely

Angry

10

Jealousy

Not at all

Jealous

0

1

2

3

4

5

6

7

8

9

Extremely

Jealous

10

Sadness

Not at all

Sad

0

1

2

3

4

5

6

7

8

9

Extremely

Sad

10

Anxiety

Not at all

Anxious

0

1

2

3

4

5

6

7

8

9

Extremely

Anxious

10

What other emotions might you be feeling?

Rate how much you would have the following reactions to these emotions:

I would want to get rid of these emotions as soon as possible:

Not at all

0

1

2

3

4

5

6

7

8

9

Completely

10

I would accept that it is okay for me to have these emotions:

Not at all

0

1

2

3

4

5

6

7

8

9

Completely

10

Rate how much you think each action **would help get rid of the emotions** that you feel in the situation:

1. Telling myself “It’s really no big deal that others know about my personal information”

Not at all Completely
0 1 2 3 4 5 6 7 8 9 10

2. Yelling at my partner to show the effect her actions had on me

Not at all Completely
0 1 2 3 4 5 6 7 8 9 10

3. Taking several deep calming breaths

Not at all Completely
0 1 2 3 4 5 6 7 8 9 10

4. Physically pushing my partner away from me

Not at all Completely
0 1 2 3 4 5 6 7 8 9 10

5. Calmly telling my partner that her actions were hurtful

Not at all Completely
0 1 2 3 4 5 6 7 8 9 10

6. Insulting my partner because of her actions

Not at all Completely
0 1 2 3 4 5 6 7 8 9 10

3. Recently, your relationship partner made a new (female) friend who lives near you. They have been spending a lot of time together when you are not around. The friend doesn't say very much to you, and you believe she does not like you very much. Your partner says that she has a lot in common with her friend, and they get along well. She tells you that her friend went through a bad breakup a few months ago, is now dating several people, and they mostly talk about the friend's dates. Your partner says that her friend asked her to go out together on Friday night. You know that the place where they would go is a club where a lot of single people go to meet. Your partner says she wants to go.

Think about things that you have experienced in relationships. How realistic does this story seem to you? On a scale from 0 to 10, where 0 is totally unrealistic and 10 is extremely realistic

Not at all Realistic												Extremely Realistic
0	1	2	3	4	5	6	7	8	9	10		

How much were you able to imagine yourself in the situation described? On a scale from 0 to 10, where 0 is not at all and 10 is completely.

Not at all Realistic												Extremely Realistic
0	1	2	3	4	5	6	7	8	9	10		

Was there anything about the situation that was unclear, didn't make sense or could be said in a better way?

Rate how much you would experience each emotion in the imagined situation just described:

Anger

Not at all

Angry

0

1

2

3

4

5

6

7

8

9

Extremely

Angry

10

Jealousy

Not at all

Jealous

0

1

2

3

4

5

6

7

8

9

Extremely

Jealous

10

Sadness

Not at all

Sad

0

1

2

3

4

5

6

7

8

9

Extremely

Sad

10

Anxiety

Not at all

Anxious

0

1

2

3

4

5

6

7

8

9

Extremely

Anxious

10

What other emotions might you be feeling?

Rate how much you would have the following reactions to these emotions:

I would want to get rid of these emotions as soon as possible:

Not at all

0

1

2

3

4

5

6

7

8

9

Completely

10

I would accept that it is okay for me to have these emotions:

Not at all

0

1

2

3

4

5

6

7

8

9

Completely

10

Rate how much you think each action **would help get rid of the emotions** that you feel in the situation:

1. Forbidding my partner from going to the singles club with her friend

Not at all 0 1 2 3 4 5 6 7 8 9 Completely 10

2. Telling myself “I should trust my partner to do the right thing, even if she goes to a singles club with her friend”

Not at all 0 1 2 3 4 5 6 7 8 9 10 Completely

3. Asking my partner about what she and her friend plan to do during their night out

Not at all 0 1 2 3 4 5 6 7 8 9 10 Completely

4. Threatening to break up with my partner if she goes to the singles club with her friend

Not at all										Completely
0	1	2	3	4	5	6	7	8	9	10

5. Calmly telling my partner my concerns about her going to the singles club

Not at all										Completely
0	1	2	3	4	5	6	7	8	9	10

6. Lying to my partner about already having plans for us for Friday

Not at all											Completely
0	1	2	3	4	5	6	7	8	9	10	

4. You and your partner have an important appointment together. You both agreed to leave at a set time so you'd make it to the appointment on time. However, when it's time to leave, your partner isn't ready. You don't want to be late to the appointment, but your partner says "I know we agreed to leave now but we don't have to leave this early. Hold on, I'll be ready soon." You watch the clock and another 15 minutes have gone by. You've calculated the time to get there. Due to traffic and based on your calculations, you believe you're really going to be late. You tell your partner this. She shouts back "I can estimate the time to get there just like you can and I don't think it's time to leave yet."

Think about things that you have experienced in relationships. How realistic does this story seem to you? On a scale from 0 to 10, where 0 is totally unrealistic and 10 is extremely realistic

Not at all Realistic												Extremely Realistic
0	1	2	3	4	5	6	7	8	9	10		

How much were you able to imagine yourself in the situation described? On a scale from 0 to 10, where 0 is not at all and 10 is completely.

Not at all Realistic												Extremely Realistic
0	1	2	3	4	5	6	7	8	9	10		

Was there anything about the situation that was unclear, didn't make sense or could be said in a better way?

Rate how much you would experience each emotion in the imagined situation just described:

Anger

Not at all												Extremely
Angry												Angry
0	1	2	3	4	5	6	7	8	9	10		

Jealousy

Not at all												Extremely
Jealous												Jealous
0	1	2	3	4	5	6	7	8	9	10		

Sadness

Not at all												Extremely
Sad												Sad
0	1	2	3	4	5	6	7	8	9	10		

Anxiety

Not at all												Extremely
Anxious												Anxious
0	1	2	3	4	5	6	7	8	9	10		

What other emotions might you be feeling?

Rate how much you would have the following reactions to these emotions:

I would want to get rid of these emotions as soon as possible:

Not at all												Completely
0	1	2	3	4	5	6	7	8	9	10		

I would accept that it is okay for me to have these emotions:

Not at all												Completely
0	1	2	3	4	5	6	7	8	9	10		

Rate how much you think each action **would help get rid of the emotions** that you feel in the situation:

1. Telling myself “If we’re late to the appointment, she’ll apologize and trust me next time”

Not at all											Completely
0	1	2	3	4	5	6	7	8	9	10	

2. Yelling back at my partner

Not at all											Completely
0	1	2	3	4	5	6	7	8	9	10	

3. Taking several deep calming breaths

Not at all											Completely
0	1	2	3	4	5	6	7	8	9	10	

4. Leaving for the appointment without my partner

Not at all											Completely
0	1	2	3	4	5	6	7	8	9	10	

5. Calmly asking my partner when she thinks is the right time to leave

Not at all											Completely
0	1	2	3	4	5	6	7	8	9	10	

6. Insulting my partner because of her actions

Not at all											Completely
0	1	2	3	4	5	6	7	8	9	10	

5. Your partner asks you to fix a few things around the house because she is having some friends over tomorrow. Although you are busy with other things, you set aside some time to work on the tasks. After several hours of trying, the things you have tried to fix are still not working right. Your partner walks into the room and asks about how it's going. When you respond that they are not working yet, she becomes upset and says, "Why can't you get it working right? Have you even been trying? Maybe I just need to call a real man to come fix it."

Think about things that you have experienced in relationships. How realistic does this story seem to you? On a scale from 0 to 10, where 0 is totally unrealistic and 10 is extremely realistic

Not at all Realistic											Extremely Realistic
0	1	2	3	4	5	6	7	8	9	10	

How much were you able to imagine yourself in the situation described? On a scale from 0 to 10, where 0 is not at all and 10 is completely.

Not at all Realistic											Extremely Realistic
0	1	2	3	4	5	6	7	8	9	10	

Was there anything about the situation that was unclear, didn't make sense or could be said in a better way?

Rate how much you would experience each emotion in the imagined situation just described:

Anger

Not at all												Extremely
Angry												Angry
0	1	2	3	4	5	6	7	8	9	10		

Jealousy

Not at all												Extremely
Jealous												Jealous
0	1	2	3	4	5	6	7	8	9	10		

Sadness

Not at all												Extremely
Sad												Sad
0	1	2	3	4	5	6	7	8	9	10		

Anxiety

Not at all												Extremely
Anxious												Anxious
0	1	2	3	4	5	6	7	8	9	10		

What other emotions might you be feeling?

Rate how much you would have the following reactions to these emotions:

I would want to get rid of these emotions as soon as possible:

Not at all												Completely
0	1	2	3	4	5	6	7	8	9	10		

I would accept that it is okay for me to have these emotions:

Not at all												Completely
0	1	2	3	4	5	6	7	8	9	10		

Rate how much you think each action **would help get rid of the emotions** that you feel in the situation:

1. Telling myself “She must be upset and worried about her friends judging her house”

Not at all 0 1 2 3 4 5 6 7 8 9 10 Completely

2. Yelling back at my partner

Not at all 0 1 2 3 4 5 6 7 8 9 10 Completely

3. Telling my partner that what she said is hurtful and I have been trying my best

Not at all 0 1 2 3 4 5 6 7 8 9 10 Completely

4. Physically pushing my partner away from me

Not at all 0 1 2 3 4 5 6 7 8 9 Completely 10

5. Telling my partner that what she said had made me upset, and I need to leave to “cool off” for a while before discussing the issue.

Not at all 0 1 2 3 4 5 6 7 8 9 10 Completely

6. Insulting my partner because of her actions

Not at all 0 1 2 3 4 5 6 7 8 9 10 Completely

Rate how likely you would be to do each of the responses if this situation happened to you:

1. Telling myself “She must be upset and worried about her friends judging her house”

Not at all likely
0 1 2 3 4 5 6 7 8 9 Completely likely
10

2. Yelling back at my partner

Not at all likely
0 1 2 3 4 5 6 7 8 9 Completely likely
10

3. Telling my partner that what she said is hurtful and I have been trying my best

Not at all likely
0 1 2 3 4 5 6 7 8 9 Completely likely
10

4. Physically pushing my partner away from me

Not at all likely
0 1 2 3 4 5 6 7 8 9 Completely likely
10

5. Telling my partner that what she said had made me upset, and I need to leave to “cool off” for a while before discussing the issue.

Not at all likely
0 1 2 3 4 5 6 7 8 9 Completely likely
10

6. Insulting my partner because of her actions

Not at all likely
0 1 2 3 4 5 6 7 8 9 Completely likely
10

Any other options for responses that you think should be listed?

Was there anything about the responses or questions that was unclear, didn't make sense or could be said in a better way?

Any other thoughts or comments about the measure?

Appendix B

Primary Study EARS

Introducing the task: This activity involves listening to different relationship situations and answering questions about them. As best as you are able, please imagine yourself in the situation being described. You will be asked questions about your emotions in the situations and different possible responses. There are no right or wrong answers, please just try to answer as honestly as possible.

1. You and your partner are at a social gathering. You notice that your partner has been talking with an attractive person that you have never met before for almost half an hour. They seem to be having fun; both are laughing and smiling. Your partner seems very interested in what this person has to say. It appears that this person is flirting with your partner.

Rate how much you would experience each emotion in the imagined situation just described:

Anger

Not at all
Angry
0

1

2

3

4

5

6

7

8

9

Extremely
Angry
10

Jealousy

Not at all
Jealous
0

1

2

3

4

5

6

7

8

9

Extremely
Jealous
10

Sadness

Not at all
Sad
0

1

2

3

4

5

6

7

8

9

Extremely
Sad
10

Anxiety

Not at all
Anxious
0

1

2

3

4

5

6

7

8

9

Extremely
Anxious
10

Rate how much you would have the following reactions to these emotions:

I would want to get rid of these emotions as soon as possible:

Not at all
0

1

2

3

4

5

6

7

8

9

Completely
10

It would be difficult for me to tolerate these feelings for more than a short time:

Not at all
0

1

2

3

4

5

6

7

8

9

Completely
10

Rate how much you think each action **would help get rid of the emotions** that you feel in the situation:

1. Telling myself “It’s no big deal”

Not at all											Completely
0	1	2	3	4	5	6	7	8	9	10	

2. Confronting my partner and/or the other person for flirting

Not at all											Completely
0	1	2	3	4	5	6	7	8	9	10	

3. Distracting myself with an interesting conversation or game

Not at all											Completely
0	1	2	3	4	5	6	7	8	9	10	

4. Telling my partner “it’s time to go” and making us both leave the party

Not at all											Completely
0	1	2	3	4	5	6	7	8	9	10	

5. Having more to drink or using other substances to put it out of my mind

Not at all											Completely
0	1	2	3	4	5	6	7	8	9	10	

6. Start flirting with someone attractive, knowing that my partner might see

Not at all											Completely
0	1	2	3	4	5	6	7	8	9	10	

Rate how likely you would be to do each of the responses if this situation happened to you:

1. Telling myself “It’s no big deal”

Not at all likely											Completely likely
	0	1	2	3	4	5	6	7	8	9	10

2. Confronting my partner and/or the other person for flirting

Not at all likely											Completely likely
	0	1	2	3	4	5	6	7	8	9	10

3. Distracting myself with an interesting conversation or game

Not at all likely											Completely likely
	0	1	2	3	4	5	6	7	8	9	10

4. Telling my partner “it’s time to go” and making us both leave the party

Not at all likely											Completely likely
	0	1	2	3	4	5	6	7	8	9	10

5. Having more to drink or using other substances to put it out of my mind

Not at all likely											Completely likely
	0	1	2	3	4	5	6	7	8	9	10

6. Start flirting with someone attractive, knowing that my partner might see

Not at all likely											Completely likely
	0	1	2	3	4	5	6	7	8	9	10

Think about things that you have experienced in relationships. How realistic does this story seem to you? On a scale from 0 to 10, where 0 is totally unrealistic and 10 is extremely realistic

Not at all											Extremely
Realistic											Realistic
	0	1	2	3	4	5	6	7	8	9	10

2. You tell your relationship partner something very personal and ask her not to discuss it with anyone else. However, a couple of weeks later, you find out that several other people know about it. You ask your partner why she told other people and she says, “I don’t know, it just came up and I didn’t think it was a big deal.”

Rate how much you would experience each emotion in the imagined situation just described:

Anger

Not at all											Extremely
Angry											Angry
0	1	2	3	4	5	6	7	8	9	10	

Jealousy

Not at all											Extremely
Jealous											Jealous
0	1	2	3	4	5	6	7	8	9	10	

Sadness

Not at all											Extremely
Sad											Sad
0	1	2	3	4	5	6	7	8	9	10	

Anxiety

Not at all											Extremely
Anxious											Anxious
0	1	2	3	4	5	6	7	8	9	10	

Rate how much you would have the following reactions to these emotions:

I would want to get rid of these emotions as soon as possible:

Not at all											Completely
0	1	2	3	4	5	6	7	8	9	10	

It would be difficult for me to tolerate these feelings for more than a short time:

Not at all											Completely
0	1	2	3	4	5	6	7	8	9	10	

Rate how much you think each action **would help get rid of the emotions** that you feel in the situation:

1. Telling myself “It’s really no big deal that others know about my personal information”

Not at all											Completely
0	1	2	3	4	5	6	7	8	9	10	

2. Raising my voice with my partner

Not at all											Completely
0	1	2	3	4	5	6	7	8	9	10	

3. Taking several deep calming breaths

Not at all											Completely
0	1	2	3	4	5	6	7	8	9	10	

4. Physically pushing my partner away from me

Not at all											Completely
0	1	2	3	4	5	6	7	8	9	10	

5. Calmly telling my partner that her actions were hurtful

Not at all											Completely
0	1	2	3	4	5	6	7	8	9	10	

6. Saying to my partner “Next time, I am going to tell my friends all of *your* secrets”

Not at all											Completely
0	1	2	3	4	5	6	7	8	9	10	

Rate how likely you would be to do each of the responses if this situation happened to you:

1. Telling myself “It’s really no big deal that others know about my personal information”

Not at all likely
0 1 2 3 4 5 6 7 8 9 Completely likely
10

2. Raising my voice with my partner

Not at all likely
0 1 2 3 4 5 6 7 8 9 Completely likely
10

3. Taking several deep calming breaths

Not at all likely
0 1 2 3 4 5 6 7 8 9 Completely likely
10

4. Physically pushing my partner away from me

Not at all likely
0 1 2 3 4 5 6 7 8 9 Completely likely
10

5. Calmly telling my partner that her actions were hurtful

Not at all likely
0 1 2 3 4 5 6 7 8 9 Completely likely
10

6. Saying to my partner “Next time, I am going to tell my friends all of *your* secrets”

Not at all likely
0 1 2 3 4 5 6 7 8 9 Completely likely
10

Think about things that you have experienced in relationships. How realistic does this story seem to you? On a scale from 0 to 10, where 0 is totally unrealistic and 10 is extremely realistic

Not at all
Realistic
0 1 2 3 4 5 6 7 8 9 Extremely
Realistic
10

3. Recently, your relationship partner made a new (female) friend who lives near you. They have been spending a lot of time together when you are not around. The friend doesn't say very much to you, and you believe she does not like you very much. Your partner says that she has a lot in common with her friend, and they get along well. She tells you that her friend went through a bad breakup a few months ago, is now dating several people, and they mostly talk about the friend's dates. Your partner says that her friend asked her to go out together on Friday night. You know that the place where they would go is a club where a lot of single people go to meet. Your partner says she wants to go.

Rate how much you would experience each emotion in the imagined situation just described:

Anger

Not at all											Extremely
Angry											Angry
0	1	2	3	4	5	6	7	8	9	10	

Jealousy

Not at all											Extremely
Jealous											Jealous
0	1	2	3	4	5	6	7	8	9	10	

Sadness

Not at all											Extremely
Sad											Sad
0	1	2	3	4	5	6	7	8	9	10	

Anxiety

Not at all											Extremely
Anxious											Anxious
0	1	2	3	4	5	6	7	8	9	10	

Rate how much you would have the following reactions to these emotions:

I would want to get rid of these emotions as soon as possible:

Not at all											Completely
0	1	2	3	4	5	6	7	8	9	10	

It would be difficult for me to tolerate these feelings for more than a short time:

Not at all											Completely
0	1	2	3	4	5	6	7	8	9	10	

Rate how much you think each action **would help get rid of the emotions** that you feel in the situation:

1. Forbidding my partner from going to the singles club with her friend

Not at all Completely
0 1 2 3 4 5 6 7 8 9 10

2. Telling myself “I should trust my partner to do the right thing, even if she goes to a singles club with her friend”

Not at all Completely
0 1 2 3 4 5 6 7 8 9 10

3. Asking my partner about what she and her friend plan to do during their night out

Not at all Completely
0 1 2 3 4 5 6 7 8 9 10

4. Threatening to break up with my partner if she goes to the singles club with her friend

Not at all Completely
0 1 2 3 4 5 6 7 8 9 10

5. Calmly telling my partner my concerns about her going to the singles club

Not at all Completely
0 1 2 3 4 5 6 7 8 9 10

6. Lying to my partner about already having plans for us for Friday

Not at all Completely
0 1 2 3 4 5 6 7 8 9 10

Rate how likely you would be to do each of the responses if this situation happened to you:

1. Forbidding my partner from going to the singles club with her friend

Not at all likely Completely likely
0 1 2 3 4 5 6 7 8 9 10

2. Telling myself “I should trust my partner to do the right thing, even if she goes to a singles club with her friend”

Not at all likely Completely likely
0 1 2 3 4 5 6 7 8 9 10

3. Asking my partner about what she and her friend plan to do during their night out

Not at all likely Completely likely
0 1 2 3 4 5 6 7 8 9 10

4. Threatening to break up with my partner if she goes to the club with her friend

Not at all likely Completely likely
0 1 2 3 4 5 6 7 8 9 10

5. Calmly telling my partner my concerns about her going to the singles club

Not at all likely Completely likely
0 1 2 3 4 5 6 7 8 9 10

6. Lying to my partner about already having plans for us for Friday

Not at all likely Completely likely
0 1 2 3 4 5 6 7 8 9 10

Think about things that you have experienced in relationships. How realistic does this story seem to you? On a scale from 0 to 10, where 0 is totally unrealistic and 10 is extremely realistic

Not at all Extremely
Realistic Realistic
0 1 2 3 4 5 6 7 8 9 10

4. You and your partner have an important appointment together. You both agreed to leave at a set time so you'd make it to the appointment on time. However, when it's time to leave, your partner isn't ready. You don't want to be late to the appointment, but your partner says "I know we agreed to leave now but we don't have to leave this early. Hold on, I'll be ready soon." You watch the clock and another 15 minutes have gone by. You've calculated the time to get there. Due to traffic and based on your calculations, you believe you're really going to be late. You tell your partner this. She shouts back "I can estimate the time to get there just like you can and I don't think it's time to leave yet."

Rate how much you would experience each emotion in the imagined situation just described:

Anger

Not at all											Extremely
Angry											Angry
0	1	2	3	4	5	6	7	8	9	10	

Jealousy

Not at all											Extremely
Jealous											Jealous
0	1	2	3	4	5	6	7	8	9	10	

Sadness

Not at all											Extremely
Sad											Sad
0	1	2	3	4	5	6	7	8	9	10	

Anxiety

Not at all											Extremely
Anxious											Anxious
0	1	2	3	4	5	6	7	8	9	10	

Rate how much you would have the following reactions to these emotions:

I would want to get rid of these emotions as soon as possible:

Not at all											Completely
0	1	2	3	4	5	6	7	8	9	10	

It would be difficult for me to tolerate these feelings for more than a short time:

Not at all											Completely
0	1	2	3	4	5	6	7	8	9	10	

Rate how much you think each action **would help get rid of the emotions** that you feel in the situation:

1. Telling myself “If we’re late to the appointment, she’ll apologize and trust me next time”

Not at all											Completely
0	1	2	3	4	5	6	7	8	9	10	

2. Yelling back at my partner

Not at all											Completely
0	1	2	3	4	5	6	7	8	9	10	

3. Taking several deep calming breaths

Not at all											Completely
0	1	2	3	4	5	6	7	8	9	10	

4. Leaving for the appointment without my partner

Not at all											Completely
0	1	2	3	4	5	6	7	8	9	10	

5. Calmly asking my partner when she thinks is the right time to leave

Not at all											Completely
0	1	2	3	4	5	6	7	8	9	10	

6. Telling my partner “you have a terrible sense of time” or something similar.

Not at all											Completely
0	1	2	3	4	5	6	7	8	9	10	

1. Telling myself “If we’re late to the appointment, she’ll apologize and trust me next time”

Completely likely

Completely likely

Completely likely

Completely likely

Completely likely

Completely likely

Realistic

5. Your partner asks you to fix a few things around the house because she is having some friends over tomorrow. Although you are busy with other things, you set aside some time to work on the tasks. After several hours of trying, the things you have tried to fix are still not working right. Your partner walks into the room and asks about how it's going. When you respond that they are not working yet, she becomes upset and says, "Why can't you get it working right? Have you even been trying? Maybe I just need to call a real man to come fix it."

Rate how much you would experience each emotion in the imagined situation just described:

Anger

Not at all											Extremely
Angry											Angry
0	1	2	3	4	5	6	7	8	9	10	

Jealousy

Not at all											Extremely
Jealous											Jealous
0	1	2	3	4	5	6	7	8	9	10	

Sadness

Not at all											Extremely
Sad											Sad
0	1	2	3	4	5	6	7	8	9	10	

Anxiety

Not at all											Extremely
Anxious											Anxious
0	1	2	3	4	5	6	7	8	9	10	

Rate how much you would have the following reactions to these emotions:

I would want to get rid of these emotions as soon as possible:

Not at all											Completely
0	1	2	3	4	5	6	7	8	9	10	

It would be difficult for me to tolerate these feelings for more than a short time:

Not at all											Completely
0	1	2	3	4	5	6	7	8	9	10	

Rate how much you think each action **would help get rid of the emotions** that you feel in the situation:

1. Telling myself “She must be upset and worried about her friends judging her house”

Not at all Completely
0 1 2 3 4 5 6 7 8 9 10

2. Raising my voice with my partner

Not at all Completely
0 1 2 3 4 5 6 7 8 9 10

3. Telling my partner that what she said is hurtful and I have been trying my best

Not at all Completely
0 1 2 3 4 5 6 7 8 9 10

4. Physically pushing my partner away from me

Not at all Completely
0 1 2 3 4 5 6 7 8 9 10

5. Telling my partner that what she said had made me upset, and I need to leave to “cool off” for a while before discussing the issue.

Not at all Completely
0 1 2 3 4 5 6 7 8 9 10

6. Saying to my partner, “Well, if you’re so handy, why don’t *you* fix it?” or something similar.

Not at all Completely
0 1 2 3 4 5 6 7 8 9 10

1. Telling myself “She must be upset and worried about her friends judging her house”

Not at all likely Completely likely

0 1 2 3 4 5 6 7 8 9 10

2. Raising my voice with my partner

Not at all likely

0 1 2 3 4 5 6 7 8 9 10

Completely likely

3. Telling my partner that what she said is hurtful and I have been trying my best

Not at all likely Completely likely

0 1 2 3 4 5 6 7 8 9 10

4. Physically pushing my partner away from me

Not at all likely 0 1 2 3 4 5 6 7 8 9 10 Completely likely

5. Telling my partner that what she said had made me upset, and I need to leave to “cool off” for a while before discussing the issue.

Not at all likely 0 1 2 3 4 5 6 7 8 9 10 Completely likely

6. Saying to my partner, “Well, if you’re so handy, why don’t *you* fix it?” or something similar.

Not at all likely 0 1 2 3 4 5 6 7 8 9 10 Completely likely

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Appendix C

Traumatic Events Questionnaire

The following questions ask about difficult, challenging, or traumatic experiences. Although we would like to believe that these types of events are rare, they actually happen with some regularity. For each experience, I will first ask whether or not this has ever happened to you. If the answer is yes, I will ask whether it happened once, twice, or three or more times. Any questions before we begin?

1. Have you been in or witnessed a serious industrial, farm, or car accident, or a large fire or explosion?

Y N

How many times? Once Twice Three +

2. Have you been in a natural disaster such as tornado, hurricane, flood, or major earthquake?

Y N

How many times? Once Twice Three +

3. Have you been a victim of a violent crime such as rape, robbery, or assault?

Y N

How many times? Once Twice Three +

4. As a child, were you the victim of physical abuse?

Y N

How many times? Once Twice Three +

5. As a child, were you the victim of sexual abuse?

Y N

How many times? Once Twice Three +

6. As a child, did you ever witness adults in your home physically attacking or harming one another?

Y N

How many times? Once Twice Three +

7. As an adult, have you ever been in a relationship in which you were abused either physically or otherwise?

Y N

How many times? Once Twice Three +

8. Have you ever witnessed someone who was mutilated, seriously injured, or violently killed?

Y N

How many times? Once Twice Three +

9. Have you been in serious danger of losing your life or of being seriously injured?

Y N

How many times? Once Twice Three +

10. Have you received the news of mutilation, serious injury, or violent or unexpected death of someone close to you?

Y N

How many times? Once Twice Three +

11. Have you ever had any other very traumatic event like these?

Y N

How many times? Once Twice Three +

12. Have you ever had any experiences like these that you feel you can't tell about (and you do not have to describe what it is)?

Y N

How many times? Once Twice Three +

(If answered YES to one or more questions):

For the questions that you answered "Yes" to, which was the MOST traumatic thing to have happened to you?

_____ (#_____).

How old were you when this event began and ended? Began: _____ Ended: _____

(If answered NO to all questions):

Please briefly describe the most traumatic thing to happen to you?

How old were you when this event began and ended? Began: _____ Ended: _____

Appendix D

PTSD Symptom Checklist 5

The next set of questions asks about problems that people sometimes have in response to very stressful experiences. For the questions that refer to “the stressful experience” I’d like you to focus on the most traumatic event that you reported a minute ago (_____). For each problem, I will ask you to indicate how much you have been bothered by it in the past month. (Hand participant paper with response scale). On the scale, 0 is “Not at all,” 1 is “A little bit,” 2 is “Moderately,” 3 is “Quite a bit,” and 4 is “Extremely.” Any questions before we begin?

	<i>Not at all</i>	<i>A little bit</i>	<i>Moderately</i>	<i>Quite a bit</i>	<i>Extremely</i>
	0	1	2	3	4
1. Repeated, disturbing, and unwanted memories of the stressful experience?	0	1	2	3	4
2. Repeated disturbing dreams of the stressful experience?	0	1	2	3	4
3. Suddenly acting or feeling as if the stressful experience were actually happening again (as if you were actually back there reliving it)?	0	1	2	3	4
4. Feeling very upset when something reminded you of the stressful experience?	0	1	2	3	4
5. Having strong physical reactions when something reminded you of the stressful experience (for example heart pounding, trouble breathing, sweating)?	0	1	2	3	4
6. Avoiding memories, thoughts, or feelings related to the stressful experience?	0	1	2	3	4
7. Avoiding external reminders of the stressful experience (for example, people, places, conversations, activities, objects, or situations)?	0	1	2	3	4
8. Trouble remembering important parts of the stressful experience?	0	1	2	3	4

9. Having strong negative beliefs about yourself, other people, or the world (for example, having thoughts such as: I am bad, there is something seriously wrong with me, no one can be trusted, or the world is completely dangerous)?
- 0 1 2 3 4
10. Blaming yourself or someone else for the stressful experience or what happened after it?
- 0 1 2 3 4
11. Having strong negative feelings such as fear, horror, anger, guilt, or shame?
- 0 1 2 3 4
12. Loss of interest in activities that you used to enjoy?
- 0 1 2 3 4
13. Feeling distant or cut off from other people?
- 0 1 2 3 4
14. Trouble experiencing positive feelings (for example, being unable to feel happiness or have loving feelings for people close to you)?
- 0 1 2 3 4
15. Irritable behavior, angry outbursts, or acting aggressively?
- 0 1 2 3 4
16. Taking too many risks for doing things that could cause you harm?
- 0 1 2 3 4
17. Being “superalert” or watchful or on guard?
- 0 1 2 3 4
18. Feeling jumpy or easily startled?
- 0 1 2 3 4
19. Having difficulty concentrating?
- 0 1 2 3 4
20. Trouble falling or staying asleep?
- 0 1 2 3 4

Appendix E

Multidimensional Experiential Avoidance Questionnaire

For each of the following statements, I'd like you to indicate how much you agree or disagree with the statement on a scale from 1 (Strongly Disagree) to 6 (Strongly Agree). (Hand participant page with response options)

1. I won't do something if I think it will make me uncomfortable
1 2 3 4 5 6
2. If I could magically remove all of my painful memories, I would
1 2 3 4 5 6
3. When something upsetting comes up, I try very hard to stop thinking about it
1 2 3 4 5 6
4. I sometimes have difficulty identifying how I feel
1 2 3 4 5 6
5. I tend to put off unpleasant things that need to get done
1 2 3 4 5 6
6. People should face their fears
1 2 3 4 5 6
7. Happiness means never feeling any pain or disappointment
1 2 3 4 5 6
8. I avoid activities if there is even a small possibility of getting hurt
1 2 3 4 5 6
9. When negative thoughts come up, I try to fill my head with something else
1 2 3 4 5 6
10. At times, people have told me I'm in denial

1 2 3 4 5 6

11. I sometimes procrastinate to avoid facing challenges

1 2 3 4 5 6

12. Even when I feel uncomfortable, I don't give up working toward things I value

1 2 3 4 5 6

13. When I am hurting, I would do anything to feel better

1 2 3 4 5 6

14. I rarely do something if there is a chance that it will upset me

1 2 3 4 5 6

15. I usually try to distract myself when I feel something painful

1 2 3 4 5 6

16. I am able to "turn off" my emotions when I don't want to feel

1 2 3 4 5 6

17. When I have something important to do I find myself doing a lot of other things instead

1 2 3 4 5 6

18. I am willing to put up with pain and discomfort to get what I want

1 2 3 4 5 6

19. Happiness involves getting rid of negative thoughts

1 2 3 4 5 6

20. I work hard to avoid situations that might bring up unpleasant thoughts and feelings in me

1 2 3 4 5 6

21. I don't realize I'm anxious until other people tell me

1 2 3 4 5 6

22. When upsetting memories come up, I try to focus on other things

1 2 3 4 5 6

23. I am in touch with my emotions

1 2 3 4 5 6

24. I am willing to suffer for the things that matter to me

1 2 3 4 5 6

25. One of my big goals is to be free from painful emotions

1 2 3 4 5 6

26. I prefer to stick to what I am comfortable with, rather than try new activities

1 2 3 4 5 6

27. I work hard to keep out upsetting feelings

1 2 3 4 5 6

28. People have said that I don't own up to my problems

1 2 3 4 5 6

29. Fear or anxiety won't stop me from doing something important

1 2 3 4 5 6

30. I try to deal with problems right away

1 2 3 4 5 6

31. I'd do anything to feel less stressed

1 2 3 4 5 6

32. If I have any doubts about doing something, I just won't do it

1 2 3 4 5 6

33. When unpleasant memories come to me, I try to put them out of my mind
1 2 3 4 5 6
34. In this day and age people should not have to suffer
1 2 3 4 5 6
35. Others have told me that I suppress my feelings
1 2 3 4 5 6
36. I try to put off unpleasant tasks for as long as possible
1 2 3 4 5 6
37. When I am hurting, I still do what needs to be done
1 2 3 4 5 6
38. My life would be great if I never felt anxious
1 2 3 4 5 6
39. If I am starting to feel trapped, I leave the situation immediately
1 2 3 4 5 6
40. When a negative thought comes up, I immediately try to think of something else
1 2 3 4 5 6
41. It's hard for me to know what I'm feeling
1 2 3 4 5 6
42. I won't do something until I absolutely have to
1 2 3 4 5 6
43. I don't let pain and discomfort stop me from getting what I want
1 2 3 4 5 6

44. I would give up a lot not to feel bad
1 2 3 4 5 6
45. I go out of my way to avoid uncomfortable situations
1 2 3 4 5 6
46. I can numb my feelings when they are too intense
1 2 3 4 5 6
47. Why do today what you can put off until tomorrow
1 2 3 4 5 6
48. I am willing to put up with sadness to get what I want
1 2 3 4 5 6
49. Some people have told me that I “hide my head in the sand”
1 2 3 4 5 6
50. Pain always leads to suffering
1 2 3 4 5 6
51. If I am in a slightly uncomfortable situation, I try to leave right away
1 2 3 4 5 6
52. It takes me awhile to realize when I’m feeling bad
1 2 3 4 5 6
53. I continue working toward my goals even if I have doubts
1 2 3 4 5 6
54. I wish I could get rid of all of my negative emotions
1 2 3 4 5 6

55. I avoid situations if there is a chance that I'll feel nervous
1 2 3 4 5 6
56. I feel disconnected from my emotions
1 2 3 4 5 6
57. I don't let gloomy thoughts stop me from doing what I want
1 2 3 4 5 6
58. The key to a good life is never feeling any pain
1 2 3 4 5 6
59. I'm quick to leave any situation that makes me feel uneasy
1 2 3 4 5 6
60. People have told me that I'm not aware of my problems
1 2 3 4 5 6
61. I hope to live without any sadness and disappointment
1 2 3 4 5 6
62. When working on something important, I won't quit even if things get difficult
1 2 3 4 5 6

Appendix F

Revised Conflict Tactics Scales

No matter how well a couple gets along, there are times when they disagree, get annoyed with the other person, want different things from each other, or just have spats or fights because they are in a bad mood, are tired, or for some other reason. Couples also have many different ways of trying to settle their differences. This is a list of different things that might happen when you and your partner have differences. You can answer based on your current partner or, if that's not applicable, your ex-partner from the incident that brought you to counseling. I will ask you about how often you and your partner (or ex-partner) have done each behavior over the last six months. (Hand participant CTS-2/MMEA response options). The options are either: Once (1), Twice (2), 3-5 times (3), 6-10 times (4), 11-20 times (5), more than 20 times (6), Not in the past 6 months, but it did happen before that (7), and This has never happened (0). Any questions before we begin?

1. I threw something at my partner that could hurt

Once	Twice	3-5	6-10	11-20	20+	Not in 6 months, but before	Never
------	-------	-----	------	-------	-----	-----------------------------	-------

2. My partner did this to me.

Once	Twice	3-5	6-10	11-20	20+	Not in 6 months, but before	Never
------	-------	-----	------	-------	-----	-----------------------------	-------

3. I twisted my partner's arm or hair.

Once	Twice	3-5	6-10	11-20	20+	Not in 6 months, but before	Never
------	-------	-----	------	-------	-----	-----------------------------	-------

4. My partner did this to me.

Once	Twice	3-5	6-10	11-20	20+	Not in 6 months, but before	Never
------	-------	-----	------	-------	-----	-----------------------------	-------

5. I pushed or shoved my partner.

Once	Twice	3-5	6-10	11-20	20+	Not in 6 months, but before	Never
------	-------	-----	------	-------	-----	-----------------------------	-------

6. My partner did this to me.

Once	Twice	3-5	6-10	11-20	20+	Not in 6 months, but before	Never
------	-------	-----	------	-------	-----	-----------------------------	-------

7. I grabbed my partner.

Once	Twice	3-5	6-10	11-20	20+	Not in 6 months, but before	Never
------	-------	-----	------	-------	-----	-----------------------------	-------

8. My partner did this to me.

Once	Twice	3-5	6-10	11-20	20+	Not in 6 months, but before	Never
------	-------	-----	------	-------	-----	-----------------------------	-------

9. I slapped my partner.

Once	Twice	3-5	6-10	11-20	20+	Not in 6 months, but before	Never
------	-------	-----	------	-------	-----	-----------------------------	-------

10. My partner did this to me.

Once	Twice	3-5	6-10	11-20	20+	Not in 6 months, but before	Never
------	-------	-----	------	-------	-----	-----------------------------	-------

11. I punched or hit my partner with something that could hurt.

Once	Twice	3-5	6-10	11-20	20+	Not in 6 months, but before	Never
------	-------	-----	------	-------	-----	-----------------------------	-------

12. My partner did this to me.

Once	Twice	3-5	6-10	11-20	20+	Not in 6 months, but before	Never
------	-------	-----	------	-------	-----	-----------------------------	-------

13. I kicked my partner.

Once	Twice	3-5	6-10	11-20	20+	Not in 6 months, but before	Never
------	-------	-----	------	-------	-----	-----------------------------	-------

14. My partner did this to me.

Once	Twice	3-5	6-10	11-20	20+	Not in 6 months, but before	Never
------	-------	-----	------	-------	-----	-----------------------------	-------

15. I slammed my partner against the wall.

Once	Twice	3-5	6-10	11-20	20+	Not in 6 months, but before	Never
------	-------	-----	------	-------	-----	-----------------------------	-------

16. My partner did this to me.

Once	Twice	3-5	6-10	11-20	20+	Not in 6 months, but before	Never
------	-------	-----	------	-------	-----	-----------------------------	-------

17. I beat up my partner.

Once	Twice	3-5	6-10	11-20	20+	Not in 6 months, but before	Never
------	-------	-----	------	-------	-----	-----------------------------	-------

18. My partner did this to me.

Once	Twice	3-5	6-10	11-20	20+	Not in 6 months, but before	Never
------	-------	-----	------	-------	-----	-----------------------------	-------

19. I choked my partner.

Once	Twice	3-5	6-10	11-20	20+	Not in 6 months, but before	Never
------	-------	-----	------	-------	-----	-----------------------------	-------

18. My partner did this to me.

Once	Twice	3-5	6-10	11-20	20+	Not in 6 months, but before	Never
------	-------	-----	------	-------	-----	-----------------------------	-------

21. I burned or scalded my partner on purpose.

Once	Twice	3-5	6-10	11-20	20+	Not in 6 months, but before	Never
------	-------	-----	------	-------	-----	-----------------------------	-------

22. My partner did this to me.

Once	Twice	3-5	6-10	11-20	20+	Not in 6 months, but before	Never
------	-------	-----	------	-------	-----	-----------------------------	-------

23. I used a knife or gun on my partner.

Once	Twice	3-5	6-10	11-20	20+	Not in 6 months, but before	Never
------	-------	-----	------	-------	-----	-----------------------------	-------

24. My partner did this to me.

Once	Twice	3-5	6-10	11-20	20+	Not in 6 months, but before	Never
------	-------	-----	------	-------	-----	-----------------------------	-------

25. I made my partner have sex without a condom.

Once	Twice	3-5	6-10	11-20	20+	Not in 6 months, but before	Never
------	-------	-----	------	-------	-----	-----------------------------	-------

26. My partner did this to me.

Once	Twice	3-5	6-10	11-20	20+	Not in 6 months, but before	Never
------	-------	-----	------	-------	-----	-----------------------------	-------

27. I insisted on sex when my partner did not want to (but did not use physical force).

Once	Twice	3-5	6-10	11-20	20+	Not in 6 months, but before	Never
------	-------	-----	------	-------	-----	-----------------------------	-------

28. My partner did this to me.

Once	Twice	3-5	6-10	11-20	20+	Not in 6 months, but before	Never
------	-------	-----	------	-------	-----	-----------------------------	-------

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

Once	Twice	3-5	6-10	11-20	20+	Not in 6 months, but before	Never
------	-------	-----	------	-------	-----	-----------------------------	-------

30. My partner did this to me.

Once	Twice	3-5	6-10	11-20	20+	Not in 6 months, but before	Never
------	-------	-----	------	-------	-----	-----------------------------	-------

31. I used force (like hitting, holding down, or using a weapon) to make my partner have sex.

Once	Twice	3-5	6-10	11-20	20+	Not in 6 months, but before	Never
------	-------	-----	------	-------	-----	-----------------------------	-------

32. My partner did this to me.

Once	Twice	3-5	6-10	11-20	20+	Not in 6 months, but before	Never
------	-------	-----	------	-------	-----	-----------------------------	-------

33. I used force (like hitting, holding down, or using a weapon) to make my partner have oral or anal sex.

Once	Twice	3-5	6-10	11-20	20+	Not in 6 months, but before	Never
------	-------	-----	------	-------	-----	-----------------------------	-------

34. My partner did this to me.

Once	Twice	3-5	6-10	11-20	20+	Not in 6 months, but before	Never
------	-------	-----	------	-------	-----	-----------------------------	-------

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

Once	Twice	3-5	6-10	11-20	20+	Not in 6 months, but before	Never
------	-------	-----	------	-------	-----	-----------------------------	-------

36. My partner did this to me.

Once	Twice	3-5	6-10	11-20	20+	Not in 6 months, but before	Never
------	-------	-----	------	-------	-----	-----------------------------	-------

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

Once	Twice	3-5	6-10	11-20	20+	Not in 6 months, but before	Never
------	-------	-----	------	-------	-----	-----------------------------	-------

38. My partner did this to me.

Once	Twice	3-5	6-10	11-20	20+	Not in 6 months, but before	Never
------	-------	-----	------	-------	-----	-----------------------------	-------

Appendix G

Brief Multidimensional Measure of Emotional Abuse

This next set of questions describes other behaviors that can happen in relationships. Again you'll be answering about yourself and your current or ex-partner. Please use the same response options for these questions.

1. I tried to stop my partner from seeing certain friends or family members.

Once	Twice	3-5	6-10	11-20	20+	Not in 6 months, but before	Never
------	-------	-----	------	-------	-----	-----------------------------	-------

2. My partner did this to me.

Once	Twice	3-5	6-10	11-20	20+	Not in 6 months, but before	Never
------	-------	-----	------	-------	-----	-----------------------------	-------

3. I got angry because my partner went somewhere without telling me.

Once	Twice	3-5	6-10	11-20	20+	Not in 6 months, but before	Never
------	-------	-----	------	-------	-----	-----------------------------	-------

4. My partner did this to me.

Once	Twice	3-5	6-10	11-20	20+	Not in 6 months, but before	Never
------	-------	-----	------	-------	-----	-----------------------------	-------

5. I tried to make my partner feel guilty for not spending enough time together.

Once	Twice	3-5	6-10	11-20	20+	Not in 6 months, but before	Never
------	-------	-----	------	-------	-----	-----------------------------	-------

6. My partner did this to me.

Once	Twice	3-5	6-10	11-20	20+	Not in 6 months, but before	Never
------	-------	-----	------	-------	-----	-----------------------------	-------

7. I checked up on my partner by asking friends or relatives where they were or who they were with.

Once	Twice	3-5	6-10	11-20	20+	Not in 6 months, but before	Never
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8. My partner did this to me.

Once	Twice	3-5	6-10	11-20	20+	Not in 6 months, but before	Never
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9. I said or implied that my partner was stupid.

Once	Twice	3-5	6-10	11-20	20+	Not in 6 months, but before	Never
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10. My partner did this to me.

Once	Twice	3-5	6-10	11-20	20+	Not in 6 months, but before	Never
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11. I called my partner worthless.

Once	Twice	3-5	6-10	11-20	20+	Not in 6 months, but before	Never
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12. My partner did this to me.

Once	Twice	3-5	6-10	11-20	20+	Not in 6 months, but before	Never
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13. I called my partner a loser, failure, or similar term.

Once	Twice	3-5	6-10	11-20	20+	Not in 6 months, but before	Never
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14. My partner did this to me.

Once	Twice	3-5	6-10	11-20	20+	Not in 6 months, but before	Never
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15. I belittled my partner in front of other people.

Once	Twice	3-5	6-10	11-20	20+	Not in 6 months, but before	Never
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16. My partner did this to me.

Once	Twice	3-5	6-10	11-20	20+	Not in 6 months, but before	Never
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17. I became so angry that I was unable or unwilling to talk.

Once	Twice	3-5	6-10	11-20	20+	Not in 6 months, but before	Never
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18. My partner did this to me.

Once	Twice	3-5	6-10	11-20	20+	Not in 6 months, but before	Never
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19. I acted cold or distant when angry.

Once	Twice	3-5	6-10	11-20	20+	Not in 6 months, but before	Never
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20. My partner did this to me.

Once	Twice	3-5	6-10	11-20	20+	Not in 6 months, but before	Never
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21. I refused to acknowledge a problem that my partner felt was important.

Once	Twice	3-5	6-10	11-20	20+	Not in 6 months, but before	Never
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22. My partner did this to me.

Once	Twice	3-5	6-10	11-20	20+	Not in 6 months, but before	Never
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23. I sulked or refused to talk about an issue.

Once	Twice	3-5	6-10	11-20	20+	Not in 6 months, but before	Never
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24. My partner did this to me.

Once	Twice	3-5	6-10	11-20	20+	Not in 6 months, but before	Never
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25. I became angry enough to frighten my partner.

Once	Twice	3-5	6-10	11-20	20+	Not in 6 months, but before	Never
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26. My partner did this to me.

Once	Twice	3-5	6-10	11-20	20+	Not in 6 months, but before	Never
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27. I threatened to hit my partner.

Once	Twice	3-5	6-10	11-20	20+	Not in 6 months, but before	Never
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28. My partner did this to me.

Once	Twice	3-5	6-10	11-20	20+	Not in 6 months, but before	Never
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29. I threw, smashed, hit, or kicked something in front of my partner.

Once	Twice	3-5	6-10	11-20	20+	Not in 6 months, but before	Never
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30. My partner did this to me.

Once	Twice	3-5	6-10	11-20	20+	Not in 6 months, but before	Never
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31. I stood or hovered over my partner during a conflict or disagreement.

Once	Twice	3-5	6-10	11-20	20+	Not in 6 months, but before	Never
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32. My partner did this to me.

Once	Twice	3-5	6-10	11-20	20+	Not in 6 months, but before	Never
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Appendix H

Supplemental Analyses with IPV Frequency Scores

Overview. Past 6-month Frequency Scores for Physical Assault, Sexual Coercion, and Emotional Abuse were not used in primary analyses because two of these variables showed substantial correlations with recent relationship status ($r = .39$ for Physical Assault, and $r = .61$ for Emotional Abuse). Results for analyses that included IPV perpetration (Hypotheses 3 and 5) were examined with past 6-month Frequency Scores to supplement the primary analyses. As the Sexual Coercion Frequency Score still deviated from normality after log-transformation (Skew = 2.14, Kurtosis = 3.43), results with this variable should be interpreted with caution.

Hypothesis 3: *Experiential avoidance, measured both via a trait measure and via avoidance-related responses to hypothetical relationship scenarios, will mediate the relationship between PTSD symptoms and IPV perpetration (including physical assault, sexual coercion, and emotional abuse perpetration).*

Prior to conducting mediation analyses, bivariate correlations between all variables for Hypotheses 3 through 7 were examined. As shown in Table 27, PTSD symptoms were significantly correlated with Physical Assault, Sexual Coercion, and Emotional Abuse Frequency scores. Experiential avoidance from the EARS was not significantly associated with Physical Assault, Sexual Coercion, or Emotional Abuse Frequency scores. Trait experiential avoidance measured from the MEAQ was significantly positively associated with Sexual Coercion Frequency, with a small effect size. Additionally, anticipated reduction in emotion from aggressive/abusive actions was significantly positively associated with Physical Assault and Emotional Abuse Frequency scores, with medium effect sizes, as well as Sexual Coercion, with a small effect size.

Table 27

Pearson Correlations between Variables of Interest for Hypotheses 3 through 7.

Variable	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
1. PTSD Symptoms	--									
2. MEAQ Experiential Avoidance	.45**	--								
3. EARS Experiential Avoidance	.45**	.42**	--							
4. ARE from Aggressive Actions	.36*	.45**	.23	--						
5. ARE from Non-Aggressive Actions	.12	.22	.14	.24*	--					
6. PL of Aggressive Actions	.45**	.37*	.33*	.81**	.13	--				
7. PL of Non-Aggressive Actions	.22	.26*	.19	.15	.82**	.13	--			
8. Physical Assault Frequency ^a .	.30*	.21	.12	.32*	.21	.39**	.12	--		
9. Sexual Coercion Frequency ^a .	.31*	.25*	.08	.23*	.09	.16	.10	.32*	--	
10. Emotional Abuse Frequency ^a .	.41**	.13	.13	.45**	.10	.42**	.10	.56**	.41**	--

Note. Abbreviations: PTSD, posttraumatic stress disorder; EARS, Experiential Avoidance in Relationship Situations; MEAQ,

Multidimensional Experiential Avoidance Questionnaire; ARE, Anticipated Reduction in Emotion; PL, Perceived Likelihood.

^a. Log-transformed

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

The general mediation model for the third hypothesis is depicted in Figure 4. In total, 6 mediation models were run, including both MEAQ and EARS measures of experiential avoidance as mediators, and Physical Assault, Sexual Coercion, and Emotional Frequency scores as outcomes. Each mediation model was tested using Model 4 of the SPSS PROCESS Macro (Hayes, 2017). Bias-corrected bootstrap 95% confidence intervals were estimated to test the significance of indirect effects, with significance indicated by intervals that do not cross zero. Results of the mediation analyses are presented in Table 28. Hypotheses were not supported. Experiential avoidance did not significantly mediate the relationship between PTSD symptoms and any of the IPV outcomes.

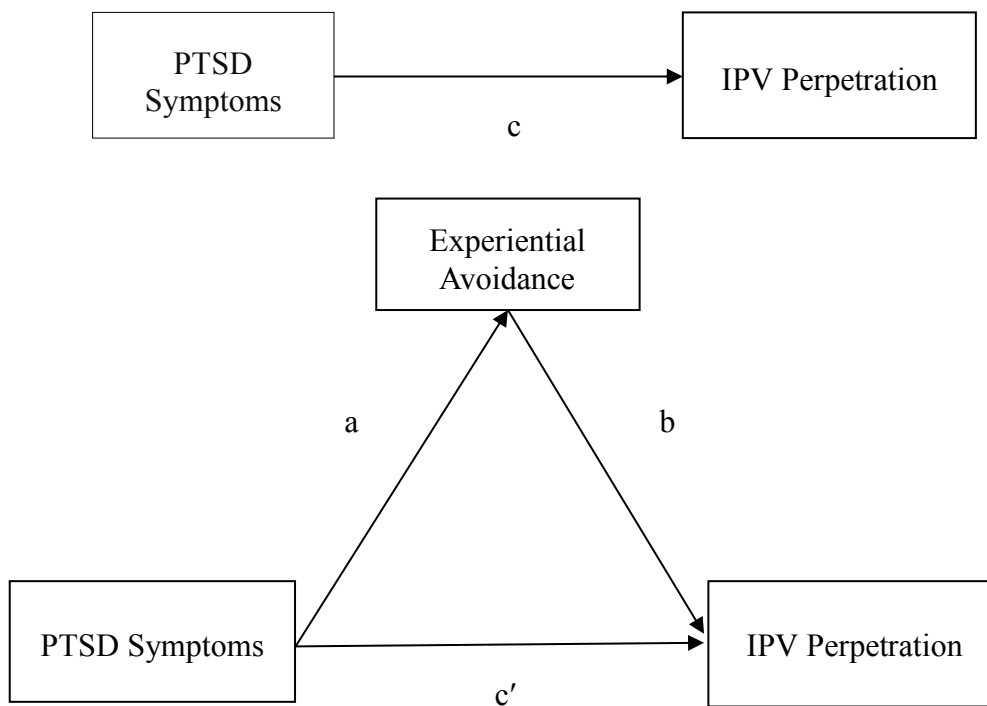


Figure 4. Experiential avoidance as a mediator between PTSD symptoms and IPV Perpetration

Table 28

Results of Mediation Analyses with IPV Frequency Scores.

Mediator	Outcome	R^2	c path (<i>SE</i>)	a path (<i>SE</i>)	b path (<i>SE</i>)	c' path (<i>SE</i>)	a x b (<i>SE</i>)	95% CI of a x b
EARS EA	Physical Assault	.09*	.0095 (.0035)*	.0619 (.0146)*	-.0045 (.0286)	.0098 (.0040)*	-.0003 (.0016)	-.0037 to .0029
EARS EA	Sexual Coercion ^a	.10*	.0037 (.0013)*	.0619 (.0146)*	-.0061 (.0106)	.0040 (.0015)*	-.0004 (.0005)	-.0015 to .0005
EARS EA	Emotional Abuse	.17*	.0183 (.0048)*	.0619 (.0146)*	-.0196 (.0393)	.0196 (.0054)*	-.0012 (.0023)	-.0055 to .0037
MEAQ EA	Physical Assault	.10*	.0095 (.0035)*	.8644 (.2049)*	.0015 (.0020)	.0083 (.0039)*	.0013 (.0017)	-.0023 to .0048
MEAQ EA	Sexual Coercion ^a	.11*	.0037 (.0013)*	.8644 (.2049)*	.0009 (.0008)	.0029 (.0015)*	.0007 (.0008)	-.0007 to .0024
MEAQ EA	Emotional Abuse	.17*	.0183 (.0048)*	.8644 (.2049)*	-.0016 (.0028)	.0198 (.0054)*	-.0014 (.0027)	-.0077 to .0031

Note. Bias-corrected 95% CIs were calculated on the basis of 5,000 bootstrap samples. All analyses are based on standardized variables.

The mediation effect is represented by the a x b path. Abbreviations: EARS, Experiential Avoidance in Relationship Situations; MEAQ, Multidimensional Experiential Avoidance Questionnaire; EA, experiential avoidance; CI, Confidence Interval. All abuse variables reflect Frequency scores.

^a. Log-transformed

* $p < .05$ or CIs that did not cross zero. ** $p < .001$.

Hypothesis 5: *Beliefs that aggressive/abusive responses will repair one's mood state will moderate the mediating effect of experiential avoidance between PTSD symptoms and IPV perpetration. Specifically, the relationship between experiential avoidance and IPV perpetration will be stronger for those who hold stronger beliefs in the mood-repairing properties of aggressive/abusive responses.*

The general moderated mediation model to test Hypothesis 5 is displayed in Figure 5. Anticipated reduction in emotion from aggressive/abusive actions is hypothesized to moderate the relationship between experiential avoidance and IPV perpetration (i.e., the *b* path of the mediation model from Hypothesis 3). In total, 6 moderated mediation models were run, including both MEAQ and EARS measures of experiential avoidance, and Physical Assault, Sexual Coercion, and Emotional Abuse perpetration as outcomes. Each moderated mediation model was tested using Model 14 of the SPSS PROCESS Macro (Hayes, 2017). Bias-corrected bootstrap 95% confidence intervals were estimated to test the significance of the index of moderated mediation, as well as the significance of conditional indirect effects in cases of significant moderated mediation. The index of moderated mediation represents the effect of the moderator on the indirect effect, and its value signifies the amount of change in the indirect effect of the mediator for each one-unit increase in the moderator.

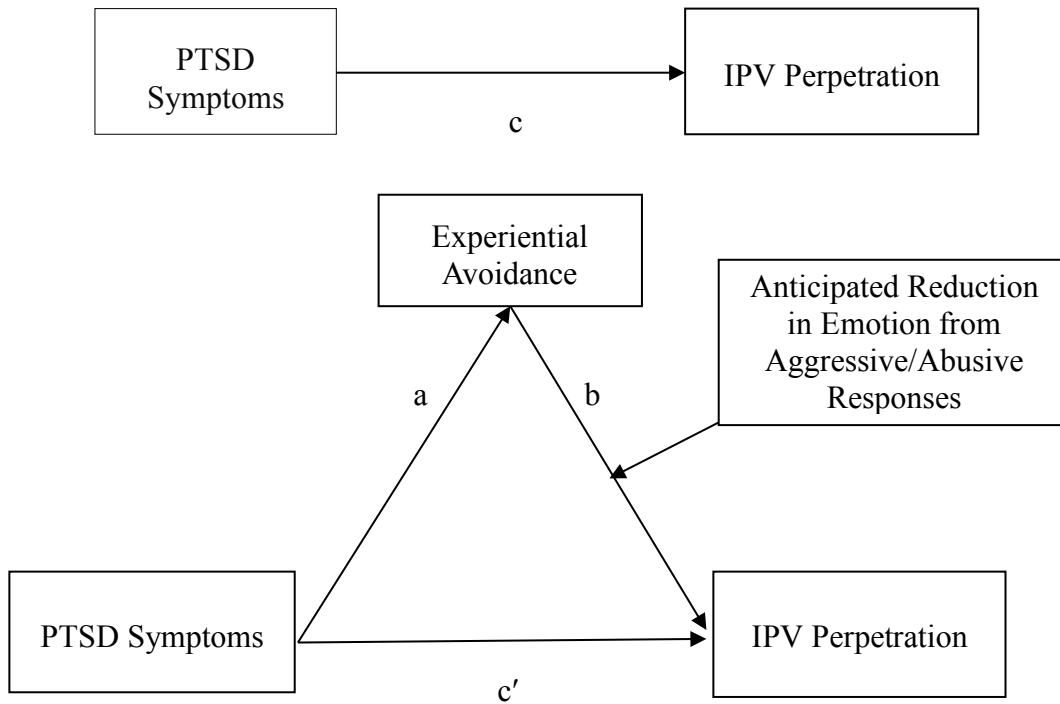


Figure 5. Anticipated reduction in emotion from aggressive/abusive responses as a moderator of the mediating effect of experiential avoidance between PTSD symptoms and IPV perpetration

Results of the moderated mediation analyses are displayed in Table 29. Hypothesis 5 was not supported. Anticipated reduction in emotion from aggressive/abusive actions did not moderate the mediating relationship of experiential avoidance between PTSD symptoms and Physical Assault, Sexual Coercion, or Emotional Abuse perpetration.

Table 29

Results of Moderated Mediation Analyses with IPV Frequency Scores.

Mediator	Outcome	Index of Moderated Mediation	95% CI of Index of Moderated Mediation
EARS EA	Physical Assault ^a	.000029 (.000062)	-.000121 to .000127
EARS EA	Sexual Coercion ^a	-.000008 (.000019)	-.000045 to .000032
EARS EA	Emotional Abuse ^a	.000000 (.000056)	-.000115 to .000106
MEAQ EA	Physical Assault ^a	.000033 (.000057)	-.000073 to .000156
MEAQ EA	Sexual Coercion ^a	.000010 (.000026)	-.000031 to .000071
MEAQ EA	Emotional Abuse ^a	-.000009 (.000078)	-.000161 to .000153

Note. Bias-corrected 95% CIs were calculated on the basis of 5,000 bootstrap samples.

Abbreviations: EARS, Experiential Avoidance in Relationship Situations; MEAQ, Multidimensional Experiential Avoidance Questionnaire; EA, experiential avoidance; CI, Confidence Interval.

^a. Log-transformed (2 extra decimals used)

References

- Adams, D. A. (1988). Counseling men who batter: A pro-feminist analysis of five treatment models. In M. Bograd & K. Yllo (Eds.), *Feminist perspectives on wife abuse* (pp. 176–199). Newbury Park, CA: Sage.
- American Psychiatric Association (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Washington, DC: Author.
- Anglin, K., & Holtzworth-Munroe, A. (1997). Comparing the responses of maritally violent and nonviolent spouses to problematic marital and nonmarital situations: Are the skill deficits of physically aggressive husbands and wives global?. *Journal of Family Psychology*, 11, 301-313. doi:10.1037/0893-3200.11.3.301
- Armstrong, T., Bilsky, S. A., Zhao, M., & Olatunji, B. O. (2013). Dwelling on potential threat cues: An eye movement marker for combat-related PTSD. *Depression and Anxiety*, 30, 497–502. <https://doi-org.proxy-bc.researchport.umd.edu/10.1002/da.22115>
- Babcock, J. C., Costa, D. M., Green, C. E., & Eckhardt, C. I. (2004). What Situations Induce Intimate Partner Violence? A Reliability and Validity Study of the Proximal Antecedents to Violent Episodes (PAVE) Scale. *Journal of Family Psychology*, 18, 433-442. doi:10.1037/0893-3200.18.3.433
- Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51, 1173-1182. doi:10.1037/0022-3514.51.6.1173
- Benight, C. C., & Bandura, A. (2004). Social cognitive theory of posttraumatic recovery: The role of perceived self-efficacy. *Behaviour Research and Therapy*, 42, 1129–1148. <https://doi-org.proxy-bc.researchport.umd.edu/10.1016/j.brat.2003.08.008>

- Berke, D. S., Macdonald, A., Poole, G. M., Portnoy, G. A., McSheffrey, S., Creech, S. K., & Taft, C. T. (2017). Optimizing trauma-informed intervention for intimate partner violence in veterans: The role of alexithymia. *Behaviour Research and Therapy*, 97, 222–229. <https://doi-org.proxy-bc.researchport.umd.edu/10.1016/j.brat.2017.08.007>
- Black, M. C., Basile, K. C., Breiding, M. J., Smith, S. G., Walters, M. L., Merrick, M. T., . . . Stevens, M. R. (2011). *The National Intimate Partner and Sexual Violence Survey (NISVS): 2010 Summary report*. Atlanta, GA: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention.
- Blake, D. D., Weathers, F. W., Nagy, L. M., Kaloupek, D. G., Gusman, F. D., Charney, D. S., & Keane, T. M. (1995). The development of a clinician-administered PTSD scale. *Journal of Traumatic Stress*, 8, 75–90.
- Blevins, C. A., Weathers, F. W., Davis, M. T., Witte, T. K., & Domino, J. L. (2015). The posttraumatic stress disorder checklist for DSM-5 (PCL-5): Development and initial psychometric evaluation. *Journal of Traumatic Stress*, 28, 489-498. [doi:10.1002/jts.22059](https://doi.org/10.1002/jts.22059)
- Bond, F. W., Hayes, S. C., Baer, R. A., Carpenter, K. M., Guenole, N., Orcutt, H. K., & ... Zettle, R. D. (2011). Preliminary psychometric properties of the Acceptance and Action Questionnaire–II: A revised measure of psychological inflexibility and experiential avoidance. *Behavior Therapy*, 42, 676-688. [doi:10.1016/j.beth.2011.03.007](https://doi.org/10.1016/j.beth.2011.03.007)
- Bovin, M. J., Marx, B. P., Weathers, F. W., Gallagher, M. W., Rodriguez, P., Schnurr, P. P., & Keane, T. M. (2016). Psychometric properties of the PTSD Checklist for Diagnostic and Statistical Manual of Mental Disorders–Fifth Edition (PCL-5) in veterans. *Psychological Assessment*, 28, 1379-1391. [doi:10.1037/pas0000254](https://doi.org/10.1037/pas0000254)

- Breiding, M. J., Basile, K. C., Smith, S. G., Black, M. C., & Mahendra, R. R. (2015). *Intimate partner violence surveillance: Uniform definitions and recommended data elements, version 2.0*. Atlanta, GA: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention.
- Bushman, B. J., Baumeister, R. F., & Phillips, C. M. (2001). Do people aggress to improve their mood? Catharsis beliefs, affect regulation opportunity, and aggressive responding. *Journal of Personality and Social Psychology*, 81, 17-32. doi:10.1037/0022-3514.81.1.17
- Calvete, E., & Orue, I. (2011). The impact of violence exposure on aggressive behavior through social information processing in adolescents. *American Journal of Orthopsychiatry*, 81, 38-50. doi:10.1111/j.1939-0025.2010.01070.x
- Campbell, J. C. (2002). Health consequences of intimate partner violence. *The Lancet*, 359, 1331-1336. doi:10.1016/S0140-6736(02)08336-8
- Cannon, C., Hamel, J., Buttell, F., & Ferreira, R. J. (2016). A survey of domestic violence perpetrator programs in the United States and Canada: Findings and implications for policy and intervention. *Partner Abuse*, 7, 226–276. <https://doi-org.proxy-bc.researchport.umd.edu/10.1891/1946-6560.7.3.226>
- Carrera, P., Caballero, A., & Muñoz, D. (2012). Future-oriented emotions in the prediction of binge-drinking intention and expectation: The role of anticipated and anticipatory emotions. *Scandinavian Journal of Psychology*, 53, 273-279. doi:10.1111/j.1467-9450.2012.00948.x
- Catalano, S. (2013). *Intimate partner violence: Attributes of victimization, 1993–2011*. Washington, DC: Bureau of Justice Statistics (NCJ243300).

- Cavanaugh, M. M., Solomon, P., & Gelles, R. J. (2011a). The Dialectical Psychoeducational Workshop (DPEW): The conceptual framework and curriculum for a preventative intervention for males at risk for IPV. *Violence Against Women*, 17, 970–989. <https://doi-org.proxy-bc.researchport.umd.edu/10.1177/1077801211414266>
- Cavanaugh, M. M., Solomon, P. L., & Gelles, R. J. (2011b). The Dialectical Psychoeducational Workshop (DPEW) for males at risk for intimate partner violence: A pilot randomized controlled trial. *Journal of Experimental Criminology*, 7, 275–291. <https://doi-org.proxy-bc.researchport.umd.edu/10.1007/s11292-011-9126-8>
- Chaplin, T. M. (2015). Gender and emotion expression: A developmental contextual perspective. *Emotion Review*, 7, 14–21. <https://doi-org.proxy-bc.researchport.umd.edu/10.1177/1754073914544408>
- Chase, K. A., O’Leary, K. D., & Heyman, R. E. (2001). Categorizing partner-violent men within the reactive–proactive typology model. *Journal of Consulting and Clinical Psychology*, 69, 567–572. <https://doi-org.proxy-bc.researchport.umd.edu/10.1037/0022-006X.69.3.567>
- Chemtob, C. M., Hamada, R. S., Roitblat, H. L., & Muraoka, M. Y. (1994). Anger, impulsivity, and anger control in combat-related posttraumatic stress disorder. *Journal of Consulting and Clinical Psychology*, 62, 827–832. <https://doi-org.proxy-bc.researchport.umd.edu/10.1037/0022-006X.62.4.827>
- Chemtob, C. M., Novaco, R. W., Hamada, R. S., Gross, D. M., & Smith, G. (1997). Anger regulation deficits in combat-related posttraumatic stress disorder. *Journal of Traumatic Stress*, 10, 17–36. doi:10.1023/A:1024852228908.

- Chervonsky, E., & Hunt, C. (2017). Suppression and expression of emotion in social and interpersonal outcomes: A meta-analysis. *Emotion, 17*, 669-683.
doi:10.1037/emo0000270
- Cieslak, R., Benight, C. C., & Lehman, V. C. (2008). Coping self-efficacy mediates the effects of negative cognitions on posttraumatic distress. *Behaviour Research and Therapy, 46*, 788–798. <https://doi-org.proxy-bc.researchport.umd.edu/10.1016/j.brat.2008.03.007>
- Claesson, K., & Sohlberg, S. (2002). Internalized shame and early interactions characterized by indifference, abandonment and rejection: Replicated findings. *Clinical Psychology & Psychotherapy, 9*, 277-284. doi:10.1002/cpp.331
- Cohn, A. M., Jakupcak, M., Seibert, L. A., Hildebrandt, T. B., & Zeichner, A. (2010). The role of emotion dysregulation in the association between men's restrictive emotionality and use of physical aggression. *Psychology of Men & Masculinity, 11*, 53-64.
doi:10.1037/a0018090
- Cordova, J. V., & Scott, R. L. (2001). Intimacy: A behavioral interpretation. *The Behavior Analyst, 24*, 75–86. <https://doi-org.proxy-bc.researchport.umd.edu/10.1007/BF03392020>
- Cornelius, T. L., Bell, K. M., Wyngarden, N., & Shorey, R. C. (2015). What happens after I hit? A qualitative analysis of the consequences of dating violence for female perpetrators. *Violence and Victims, 30*, 393-416. doi:10.1891/0886-6708.VV-D-13-00058
- Crane, C. A., Hawes, S. W., Devine, S., & Easton, C. J. (2014). Axis I psychopathology and the perpetration of intimate partner violence. *Journal of Clinical Psychology, 70*, 238-247.
doi:10.1002/jclp.22013
- Creech, S. K., Macdonald, A., Benzer, J. K., Poole, G. M., Murphy, C. M., & Taft, C. T. (2017). PTSD symptoms predict outcome in trauma-informed treatment of intimate partner

aggression. *Journal of Consulting and Clinical Psychology*, 85, 966-974.

doi:10.1037/ccp0000228

Crick, N. R., & Dodge, K. A. (1994). A review and reformulation of social information-processing mechanisms in children's social adjustment. *Psychological Bulletin*, 115, 74-101. doi:10.1037/0033-2909.115.1.74

Dardis, C. M., Murphy, M. J., Bill, A. C., & Gidycz, C. A. (2016). An investigation of the tenets of social norms theory as they relate to sexually aggressive attitudes and sexual assault perpetration: A comparison of men and their friends. *Psychology of Violence*, 6, 163–171. <https://doi-org.proxy-bc.researchport.umd.edu/10.1037/a0039443>

Daughters, S. B., Reynolds, E. K., MacPherson, L., Kahler, C. W., Danielson, C. K., Zvolensky, M., & Lejuez, C. W. (2009). Distress tolerance and early adolescent externalizing and internalizing symptoms: The moderating role of gender and ethnicity. *Behaviour Research and Therapy*, 47, 198-205. doi:10.1016/j.brat.2008.12.001

Davison, G. C., Robins, C., & Johnson, M. K. (1983). Articulated thoughts during simulated situations: A paradigm for studying cognition in emotion and behavior. *Cognitive Therapy and Research*, 7, 17-39. doi:10.1007/BF01173421

De Castella, K., Platow, M. T., & Gross, J. J. (2018). Beliefs about emotion: Implications for avoidance-based emotion regulation and psychological health. *Cognition and Emotion*, 32, 773-795. <https://doi.org/10.1080/02699931.2017.1353485>

de Castro, B. O., Merk, W., Koops, W., Veerman, J. W., & Bosch, J. D. (2005). Emotions in Social Information Processing and Their Relations With Reactive and Proactive Aggression in Referred Aggressive Boys. *Journal of Clinical Child and Adolescent*

- Psychology*, 34, 105–116. https://doi-org.proxy-bc.researchport.umd.edu/10.1207/s15374424jccp3401_10
- Delsol, C., & Margolin, G. (2004). The role of family-of-origin violence in men's marital violence perpetration. *Clinical Psychology Review*, 24, 99-122.
doi:10.1016/j.cpr.2003.12.001
- DeWall, C. N., Baumeister, R. F., Chester, D. S., & Bushman, B. J. (2016). How often does currently felt emotion predict social behavior and judgment? A meta-analytic test of two theories. *Emotion Review*, 8, 136-143. doi:10.1177/1754073915572690
- Dutra, S. J., & Sadeh, N. (2017). Psychological flexibility mitigates effects of PTSD symptoms and negative urgency on aggressive behavior in trauma-exposed veterans. *Personality Disorders: Theory, Research, and Treatment*, Advance online publication.
doi:10.1037/per0000251
- Eckhardt, C. I., Barbour, K. A., & Davison, G. C. (1998). Articulated thoughts of maritally violent and nonviolent men during anger arousal. *Journal of Consulting and Clinical Psychology*, 66, 259-269. doi:10.1037/0022-006X.66.2.259
- Ehlers, A., & Clark, D. M. (2000). A cognitive model of posttraumatic stress disorder. *Behaviour Research and Therapy*, 38, 319-345.
- Elkins, S. R., Moore, T. M., McNulty, J. K., Kivisto, A. J., & Handsel, V. A. (2013). Electronic diary assessment of the temporal association between proximal anger and intimate partner violence perpetration. *Psychology of Violence*, 3, 100-113. doi:10.1037/a0029927
- Elliott, D., Bjelajac, P., Fallot, R., Markoff, L. & Glover Reed, B. (2005). Trauma-informed or trauma-denied: Principles and implementation of trauma-informed services for women. *Journal of Community Psychology*, 33, 461-477. doi:10.1002/jcop.20063

- Enders, C. K., & Tofighi, D. (2007). Centering predictor variables in cross-sectional multilevel models: A new look at an old issue. *Psychological Methods*, 12, 121–138. <https://doi-org.proxy-bc.researchport.umd.edu/10.1037/1082-989X.12.2.121.supp>
- Fite, J. E., Bates, J. E., Holtzworth-Munroe, A., Dodge, K. A., Nay, S. Y., & Pettit, G. S. (2008). Social information processing mediates the intergenerational transmission of aggressiveness in romantic relationships. *Journal of Family Psychology*, 22, 367-376. doi:10.1037/0893-3200.22.3.367
- Foa, E. B., & Kozak, M. J. (1985). Treatment of anxiety disorders: Implications for psychopathology. In A. H. Tuma & J. D. Maser (Eds.), *Anxiety and the anxiety disorders* (pp. 421-452). Hillsdale, NJ: Erlbaum.
- Foa, E. B., & Kozak, M. J. (1986). Emotional processing of fear: Exposure to corrective information. *Psychological Bulletin*, 99, 20-35. doi: 10.1037/0033-2909.99.1.20
- Foa, E. B., Hembree, E. A., & Rothbaum, B. O. (2007). *Prolonged exposure therapy for PTSD: Emotional processing of traumatic experiences: Therapist guide*. New York: Oxford University Press.
- Fraser, M. W., Galinsky, M. J., Smokowski, P. R., Day, S. H., Terzian, M. A., Rose, R. A., & Guo, S. (2005). Social Information-Processing Skills Training to Promote Social Competence and Prevent Aggressive Behavior in the Third Grades. *Journal of Consulting and Clinical Psychology*, 73, 1045-1055. doi:10.1037/0022-006X.73.6.1045
- Frewen, P. A., Dozois, D. A., Neufeld, R. J., & Lanius, R. A. (2008). Meta-analysis of alexithymia in posttraumatic stress disorder. *Journal of Traumatic Stress*, 21, 243-246. doi:10.1002/jts.20320

- Frewen, P. A., Dozois, D. A., Neufeld, R. J., Densmore, M., Stevens, T. K., & Lanius, R. A. (2010). Social emotions and emotional valence during imagery in women with PTSD: Affective and neural correlates. *Psychological Trauma: Theory, Research, Practice, and Policy*, 2, 145-157. doi:10.1037/a0019154
- Fritz, M. S., & MacKinnon, D. P. (2007). Required sample size to detect the mediated effect. *Psychological Science*, 18, 233-239. doi:10.1111/j.1467-9280.2007.01882.x
- Fruzzetti, A. E., & Levensky, E. R. (2000). Dialectical behavior therapy for domestic violence: Rationale and Procedures. *Cognitive and Behavioral Practice*, 7, 435–447. [https://doi-org.proxy-bc.researchport.umd.edu/10.1016/S1077-7229\(00\)80055-3](https://doi-org.proxy-bc.researchport.umd.edu/10.1016/S1077-7229(00)80055-3)
- Gámez, W., Chmielewski, M., Kotov, R., Ruggero, C., & Watson, D. (2011). Development of a measure of experiential avoidance: The Multidimensional Experiential Avoidance Questionnaire. *Psychological Assessment*, 23, 692-713. doi:10.1037/a0023242
- Gardner, F. L., & Moore, Z. E. (2008). Understanding clinical anger and violence: The anger avoidance model. *Behavior Modification*, 32(6), 897-912. doi:10.1177/0145445508319282
- Gilbert, P., Pehl, J., & Allan, S. (1994). The phenomenology of shame and guilt: An empirical investigation. *British Journal of Medical Psychology*, 67, 23-36. doi:10.1111/j.2044-8341.1994.tb01768.x
- Gillihan, S. J., Cahill, S. P., & Foa, E. B. (2014). Psychological theories of PTSD. In M. J. Friedman, T. M. Keane, & P. A. Resick (Eds.), *Handbook of PTSD: Science and practice* (pp. 166-184). New York, NY: The Guilford Press.

- Gobin, R. L., & Freyd, J. J. (2014). The impact of betrayal trauma on the tendency to trust. *Psychological Trauma: Theory, Research, Practice, and Policy*, 6, 505–511. <https://doi-org.proxy-bc.researchport.umd.edu/10.1037/a0032452>
- Golding, J. M. (1999). Intimate partner violence as a risk factor for mental disorders: A meta-analysis. *Journal of Family Violence*, 14, 99-132. doi:10.1023/A:1022079418229
- Hahn, J. W., Aldarondo, E., Silverman, J. G., McCormick, M. C., & Koenen, K. C. (2015). Examining the association between posttraumatic stress disorder and intimate partner violence perpetration. *Journal of Family Violence*, 30, 743-752. doi:10.1007/s10896-015-9710-1
- Hayes, A. F. (2017). *Introduction to Mediation, Moderation, and Conditional Process Analysis: A Regression-Based Approach* (2nd ed.). New York, NY: The Guilford Press.
- Hayes, S. C., Strosahl, K. D., & Wilson, K. G. (2012). *Acceptance and commitment therapy: The process and practice of mindful change* (2nd ed.). New York, NY, US: Guilford Press.
- Hayes, S. C., Strosahl, K., Wilson, K. G., Bissett, R. T., Pistorello, J., Toarmino, D., & ...
McCurry, S. M. (2004). Measuring Experiential Avoidance: A Preliminary Test of a Working Model. *The Psychological Record*, 54, 553-578.
- Hayes, S. C., Wilson, K. G., Gifford, E. V., Follette, V. M., & Strosahl, K. (1996). Experiential avoidance and behavioral disorders: A functional dimensional approach to diagnosis and treatment. *Journal of Consulting and Clinical Psychology*, 64, 1152-1168.
doi:10.1037/0022-006X.64.6.1152
- Holtzworth-Munroe, A. (1992). Social skill deficits in maritally violent men: Interpreting the data using a social information processing model. *Clinical Psychology Review*, 12, 605–617. [http://dx.doi.org/10.1016/0272-7358\(92\)90134-T](http://dx.doi.org/10.1016/0272-7358(92)90134-T)

- Holtzworth-Munroe, A., & Anglin, K. (1991). The competency of responses given by maritally violent versus nonviolent men to problematic marital situations. *Violence and Victims*, 6(4), 257-269.
- Holtzworth-Munroe, A., & Hutchinson, G. (1993). Attributing negative intent to wife behavior: The attributions of maritally violent versus nonviolent men. *Journal of Abnormal Psychology*, 102, 206-211. doi:10.1037/0021-843X.102.2.206
- Holzhauser, C. G., Wemm, S., & Wulfert, E. (2017). Distress tolerance and physiological reactivity to stress predict women's problematic alcohol use. *Experimental and Clinical Psychopharmacology*, 25, 156-165. doi:10.1037/pha0000116
- Horowitz, M. J., & Solomon, G. F. (1975). A prediction of delayed stress response syndromes in Vietnam veterans. *Journal of Social Issues*, 31, 67-80. <https://doi-org.proxy-bc.researchport.umd.edu/10.1111/j.1540-4560.1975.tb01012.x>
- Horowitz, M. J., Wilner, N., & Alvarez, W. (1979). Impact of Event Scale: A measure of subjective stress. *Psychosomatic Medicine*, 41, 209-218. doi:10.1097/00006842-197905000-00004
- Hoyt, T., Wray, A. M., Wiggins, K. T., Gerstle, M., & Maclean, P. C. (2012). Personality profiles of intimate partner violence offenders with and without PTSD. *Journal of Offender Rehabilitation*, 51, 239-256. <https://doi-org.proxy-bc.researchport.umd.edu/10.1080/10509674.2011.650349>
- Iverson, K. M., Follette, V. M., Pistorello, J., & Fruzzetti, A. E. (2012). An investigation of experiential avoidance, emotion dysregulation, and distress tolerance in young adult outpatients with borderline personality disorder symptoms. *Personality Disorders: Theory, Research, and Treatment*, 3, 415-422. doi:10.1037/a0023703

- Jakupcak, M. (2003). Masculine gender role stress and men's fear of emotions as predictors of self-reported aggression and violence. *Violence and Victims, 18*, 533-541.
doi:10.1891/vivi.2003.18.5.533
- Jakupcak, M., Tull, M. T., & Roemer, L. (2005). Masculinity, Shame, and Fear of Emotions as Predictors of Men's Expressions of Anger and Hostility. *Psychology of Men & Masculinity, 6*, 275-284. doi:10.1037/1524-9220.6.4.275
- Kassinove, H., & Tafrate, R. C. (2002). *Anger management: The complete treatment guide- book for practitioners*. Atascadero, CA: Impact Publishers.
- Keane, T. M., Zimering, R. T., & Caddell, J. M. (1985). A behavioral formulation of posttraumatic stress disorder. *Behavior Therapist, 8*, 9-12.
- Kenny, D. A. (2017, February). MedPower: An interactive tool for the estimation of power in tests of mediation [Computer software]. Available from
<https://davidakenny.shinyapps.io/PowerMed/>
- Kessler, R. C., Chiu, W. T., Demler, O., Merikangas, K. R., & Walters, E. E. (2005). Prevalence, Severity, and Comorbidity of 12-Month DSM-IV Disorders in the National Comorbidity Survey Replication. *Archives of General Psychiatry, 62*, 617–627. <https://doi-org.proxy-bc.researchport.umd.edu/10.1001/archpsyc.62.6.617>
- Kumpula, M. J., Orcutt, H. K., Bardeen, J. R., & Varkovitzky, R. L. (2011). Peritraumatic dissociation and experiential avoidance as prospective predictors of posttraumatic stress symptoms. *Journal of Abnormal Psychology, 120*, 617-627. doi:10.1037/a0023927
- Kupersmidt, J. B., Stelter, R., & Dodge, K. A. (2011). Development and validation of the social information processing application: A Web-based measure of social information

- processing patterns in elementary school-age boys. *Psychological Assessment*, 23, 834–847. <https://doi-org.proxy-bc.researchport.umd.edu/10.1037/a0023621>
- Kwako, L. E., Glass, N., Campbell, J., Melvin, K. C., Barr, T., & Gill, J. M. (2011). Traumatic brain injury in intimate partner violence: A critical review of outcomes and mechanisms. *Trauma, Violence, & Abuse*, 12, 115-126. doi:10.1177/1524838011404251
- Labella, M. H. (2018). The sociocultural context of emotion socialization in African American families. *Clinical Psychology Review*, 59, 1–15. <https://doi-org.proxy-bc.researchport.umd.edu/10.1016/j.cpr.2017.10.006>
- LaMotte, A. D. (2016). Trauma, Posttraumatic Stress Disorder Symptoms, and Dissociative Experiences during Intimate Partner Violence Perpetration (Master's thesis). Retrieved from University of Maryland, Baltimore County.
- LaMotte, A. D., & Murphy, C. M. (2017). Trauma, posttraumatic stress disorder symptoms, and dissociative experiences during men's intimate partner violence perpetration. *Psychological Trauma: Theory, Research, Practice, and Policy*, 9, 567-574. doi:10.1037/tra0000205
- LaMotte, A. D., Gower, P. K., Miles-McLean, H., Farzan-Kashani, J., & Murphy, C. M. (2018). Trauma's influence on relationships: Clients' perspectives at an intimate partner violence intervention program. *Journal of Family Violence, Advance online publication*, 1-8. <https://doi-org.proxy-bc.researchport.umd.edu/10.1007/s10896-018-0004-2>
- LaMotte, A. D., Meis, L. A., Winters, J. J., Barry, R. A., & Murphy, C. M. (2018). Relationship problems among men in treatment for engaging in intimate partner violence. *Journal of Family Violence*, 33, 75-82. doi:10.1007/s10896-017-9920-9

- LaMotte, A. D., Miles-McLean, H. A., Williams, M. & Murphy, C. M. (in preparation). Positive and Negative Outcome Expectancies for Partner Abusive Behavior.
- LaMotte, A. D., Taft, C. T., & Weatherill, R. P. (2016). Mistrust of others as a mediator of the relationship between trauma exposure and use of partner aggression. *Psychological Trauma: Theory, Research, Practice, and Policy*, 8, 535-540. doi:10.1037/tra0000157
- LaMotte, A. D., Taft, C. T., Weatherill, R. P., & Eckhardt, C. I. (2017). Social skills deficits as a mediator between PTSD symptoms and intimate partner aggression in returning veterans. *Journal of Family Psychology*, 31, 105-110. doi:10.1037/fam0000215
- Langhinrichsen-Rohling, J., McCullars, A., & Misra, T. A. (2012). Motivations for men and women's intimate partner violence perpetration: A comprehensive review. *Partner Abuse*, 3, 429-468. doi:10.1891/1946-6560.3.4.429
- Lauterbach, D., & Vrana, S. (1996). Three studies on the reliability and validity of a self-report measure of posttraumatic stress disorder. *Assessment*, 3, 17-25.
- Lemerise, E. A., & Arsenio, W. F. (2000). An integrated model of emotion processes and cognition in social information processing. *Child Development*, 71, 107-118. doi:10.1111/1467-8624.00124
- Leserman, J., & Drossman, D. A. (2007). Relationship of abuse history to functional gastrointestinal disorders and symptoms: Some possible mediating mechanisms. *Trauma, Violence, & Abuse*, 8, 331-343. doi:10.1177/1524838007303240
- Linehan, M., M., (2014). *DBT Training Manual*. New York, NY: The Guilford Press.
- Lipschitz, D. S., Kaplan, M. L., Sorkenn, J., Chorney, P., & Asnis, G. M. (1996). Childhood abuse, adult assault, and dissociation. *Comprehensive Psychiatry*, 37, 261-266. doi:10.1016/S0010-440X(96)90005-X

- Maguire, E., Macdonald, A., Krill, S., Holowka, D. W., Marx, B. P., Woodward, H., & ... Taft, C. T. (2015). Examining trauma and posttraumatic stress disorder symptoms in court-mandated intimate partner violence perpetrators. *Psychological Trauma: Theory, Research, Practice, and Policy*, 7, 473-478. doi:10.1037/a0039253
- Maldonado, A., Murphy, C. M., Farzan-Kashani, J., Sun, S., & Pitts, S. C. (in preparation). Psychometric Properties and Factor Analysis of a Short Form of the Multi-Dimensional Measure of Emotional Abuse.
- Marshall, A. D., Panuzio, J., Makin-Byrd, K. N., Taft, C. T., & Holtzworth-Munroe, A. (2011). A multilevel examination of interpartner intimate partner violence and psychological aggression reporting concordance. *Behavior Therapy*, 42, 364–377. <https://doi-org.proxy-bc.researchport.umd.edu/10.1016/j.beth.2010.09.003>
- Marshall, A. D., Robinson, L. R., & Azar, S. T. (2011). Cognitive and emotional contributors to intimate partner violence perpetration following trauma. *Journal of Traumatic Stress*, 24, 586-590. doi:10.1002/jts.20681
- Marx, B. P., & Sloan, D. M. (2005). Peritraumatic dissociation and experiential avoidance as predictors of posttraumatic stress symptomatology. *Behaviour Research and Therapy*, 43, 569-583. doi:10.1016/j.brat.2004.04.004
- McDonald, M. K., Borntrager, C. F., & Rostad, W. (2014). Measuring trauma: Considerations for assessing complex and non-PTSD criterion a childhood trauma. *Journal of Trauma & Dissociation*, 15, 184-203. doi:10.1080/15299732.2014.867577
- McFall, R. M. (1982). A review and reformulation of the concept of social skills. *Behavioral Assessment*, 4, 1–33.

- McLean, C. P., & Foa, E. B. (2017). Emotions and emotion regulation in posttraumatic stress disorder. *Current Opinion in Psychology*, 14, 72-77. doi:10.1016/j.copsyc.2016.10.006
- Miles-McLean, H. A., LaMotte, A. D., Semiatin, J. N., Farzan-Kashani, J., Torres, S., Poole, G. M., & Murphy, C. M. (2018). PTSD as a Predictor of Treatment Engagement and Recidivism in Partner Abusive Men. *Psychology of Violence*, Advance online publication. doi:10.1037/vio0000161
- Miles-McLean, H., LaMotte, A. D., Williams, M., & Murphy, C. M. (2019). Trauma exposure and PTSD among women receiving treatment for intimate partner violence perpetration. *Journal of Interpersonal Violence*, Advance online publication, 1-24. doi:10.1177/0886260518820634
- Morey, L. C. (1991). *The Personality Assessment Inventory: Professional manual*. Odessa, FL: Psychological Assessment Resources.
- Morey, L.C. (2007). *The Personality Assessment Inventory professional manual*. Lutz, FL: Psychological Assessment Resources.
- Murphy, C. M. (2013). Social information processing and the perpetration of intimate partner violence: It is (and isn't) what you think. *Psychology of Violence*, 3, 212–217. <https://doi-org.proxy-bc.researchport.umd.edu/10.1037/a0033344>
- Murphy, C. M., & Cascardi, M. (1999). Psychological abuse in marriage and dating relationships. In R. L. Hampton (Ed.), *Family violence prevention and treatment* (2nd ed., pp. 198–226). Beverly Hills, CA: Sage.
- Murphy, C. M., & Eckhardt, C. I. (2005). *Treating the abusive partner: An individualized cognitive-behavioral approach*. New York, NY: The Guilford Press.

- Murphy, C. M., & Hoover, S. A. (1999). Measuring emotional abuse in dating relationships as a multifactorial construct. *Violence and Victims, 14*, 39-53.
- Murphy, C. M., & Scott, E. (1996). *Cognitive-behavioral therapy for domestically assaultive individuals: A treatment manual*. Unpublished manuscript, University of Maryland, Baltimore County.
- Murphy, C. M., Eckhardt, C. I., Clifford, J. M., LaMotte, A. D., & Meis, L. A. (2017). Individual versus group cognitive behavioral therapy for partner violent men: A preliminary randomized trial. *Journal of Interpersonal Violence*, Advance online publication. <https://doi.org/10.1177/0886260517705666>
- Murphy, C. M., Hoover, S. A., & Taft, C. T. (1999, November). The Multidimensional Measure of Emotional Abuse: Factor structure and subscale validity. Paper presented at the 15th Annual Meeting of the Association for the Advancement of Behavior Therapy, Toronto, Canada.
- Murphy, C. M., Taft, C. T., & Eckhardt, C. I. (2007). Anger problem profiles among partner violent men: Differences in clinical presentation and treatment outcome. *Journal of Counseling Psychology, 54*, 189-200. doi:10.1037/0022-0167.54.2.189
- Naifeh, J. A., Tull, M. T., & Gratz, K. L. (2012). Anxiety sensitivity, emotional avoidance, and PTSD symptom severity among crack/cocaine dependent patients in residential treatment. *Cognitive Therapy and Research, 36*, 247-257. doi:10.1007/s10608-010-9337-8
- Norwood, A., & Murphy, C. (2012). What forms of abuse correlate with PTSD symptoms in partners of men being treated for intimate partner violence?. *Psychological Trauma: Theory, Research, Practice, and Policy, 4*, 596-604. doi:10.1037/a0025232

- O’Leary, K. D., & Williams, M. C. (2006). Agreement about acts of aggression in marriage. *Journal of Family Psychology*, 20, 656–662. <https://doi-org.proxy-bc.researchport.umd.edu/10.1037/0893-3200.20.4.656>
- Parrott, W. G., & Smith, R. H. (1993). Distinguishing the experiences of envy and jealousy. *Journal of Personality and Social Psychology*, 64, 906–920. <https://doi-org.proxy-bc.researchport.umd.edu/10.1037/0022-3514.64.6.906>
- Pence, E., & Paymar, M. (1993). *Education groups for men who batter: The Duluth model*. New York, NY: Springer Publishing.
- Peugh, J. L., & Enders, C. K. (2005). Using the SPSS Mixed Procedure to Fit Cross-Sectional and Longitudinal Multilevel Models. *Educational and Psychological Measurement*, 65, 717–741. <https://doi-org.proxy-bc.researchport.umd.edu/10.1177/0013164405278558>
- Reddy, M. K., Meis, L. A., Erbes, C. R., Polusny, M. A., & Compton, J. S. (2011). Associations among experiential avoidance, couple adjustment, and interpersonal aggression in returning Iraqi war veterans and their partners. *Journal of Consulting and Clinical Psychology*, 79, 515-520. doi:10.1037/a0023929
- Resick, P. A., & Schnicke, M. K. (1993). *Cognitive processing therapy for rape victims: A treatment manual*. Newbury Park, CA: Sage
- Resick, P. A., Monson, C. M., & Chard, K. M. (2017). *Cognitive processing therapy for PTSD: A comprehensive manual*. New York, NY: The Guilford Press.
- Riggs, D. S., & Caulfield, M. B. (1997). Expected consequences of male violence against their female dating partners. *Journal of Interpersonal Violence*, 12, 229–240. <https://doi-org.proxy-bc.researchport.umd.edu/10.1177/088626097012002005>

- Riggs, D. S., Rothbaum, B. O., & Foa, E. B. (1995). A prospective examination of symptoms of posttraumatic stress disorder in victims of nonsexual assault. *Journal of Interpersonal Violence, 10*, 201-214. doi:10.1177/0886260595010002005
- Rocheftort, C., Baldwin, A. S., & Chmielewski, M. (2017). Experiential avoidance: An examination of the construct validity of the AAQ-II and MEAQ. *Behavior Therapy, 54*, 1-12. doi:10.1016/j.beth.2017.08.008
- Roemer, L., Litz, B. T., Orsillo, S. M., & Wagner, A. W. (2001). A preliminary investigation of the role of strategic withholding of emotions in PTSD. *Journal of Traumatic Stress, 14*, 149-156. doi:10.1023/A:1007895817502
- Rosenbaum, A., & Leisring, P. A. (2003). Beyond power and control: Towards an understanding of partner abusive men. *Journal of Comparative Family Studies, 34*, 7-22.
- Rothbaum, B. O., Foa, E. B., Riggs, D. S., Murdock, T., & Walsh, W. (1992). A prospective examination of post-traumatic stress disorder in rape victims. *Journal of Traumatic Stress, 5*, 455-475. doi:10.1002/jts.2490050309
- Seligowski, A. V., Lee, D. J., Bardeen, J. R., & Orcutt, H. K. (2015). Emotion regulation and posttraumatic stress symptoms: A meta-analysis. *Cognitive Behaviour Therapy, 44*, 87-102. doi:10.1080/16506073.2014.980753
- Semiatin, J. N., Murphy, C. M., & Elliott, J. D. (2013). Observed behavior during group treatment for partner-violent men: Acceptance of responsibility and promotion of change. *Psychology of Violence, 3*, 126-139. <https://doi-org.proxy-bc.researchport.umd.edu/10.1037/a0029846>

- Semiatin, J. N., Torres, S., LaMotte, A. D., Portnoy, G. A., & Murphy, C. M. (2017). Trauma exposure, PTSD symptoms, and presenting clinical problems among male perpetrators of intimate partner violence. *Psychology of Violence*, 7, 91-100. doi:10.1037/vio0000041
- Sherrill, A. M., Wyngarden, N., & Bell, K. M. (2011). Expected outcomes of dating violence: Perspectives from female perpetrators. *Partner Abuse*, 2, 404-426. doi:10.1891/1946-6560.2.4.404
- Shorey, R. C., Elmquist, J., Zucosky, H., Febres, J., Brasfield, H., & Stuart, G. L. (2014). Experiential avoidance and male dating violence perpetration: An initial investigation. *Journal of Contextual Behavioral Science*, 3, 117-123. doi:10.1016/j.jcbs.2014.02.003
- Shorey, R. C., Temple, J. R., Febres, J., Brasfield, H., Sherman, A. E., & Stuart, G. L. (2012). The consequences of perpetrating psychological aggression in dating relationships: A descriptive investigation. *Journal of Interpersonal Violence*, 27, 2980-2998. doi:10.1177/0886260512441079
- Simons, J. S., & Gaher, R. M. (2005). The Distress Tolerance Scale: Development and validation of a self-report measure. *Motivation and Emotion*, 29, 83-102. doi:10.1007/s11031-005-7955-3
- Simpson, L. E., & Christensen, A. (2005). Spousal agreement regarding relationship aggression on the Conflict Tactics Scale-2. *Psychological Assessment*, 17, 423-432. <https://doi-org.proxy-bc.researchport.umd.edu/10.1037/1040-3590.17.4.423>
- Sippel, L. M., & Marshall, A. D. (2011). Posttraumatic stress disorder symptoms, intimate partner violence perpetration, and the mediating role of shame processing bias. *Journal of Anxiety Disorders*, 25, 903-910. doi:10.1016/j.janxdis.2011.05.002

- Smith, J. M., & Alloy, L. B. (2009). A roadmap to rumination: A review of the definition, assessment, and conceptualization of this multifaceted construct. *Clinical Psychology Review, 29*, 116–128. <https://doi-org.proxy-bc.researchport.umd.edu/10.1016/j.cpr.2008.10.003>
- Smith, P. H., Homish, G. G., Leonard, K. E., & Cornelius, J. R. (2012). Intimate partner violence and specific substance use disorders: Findings from the National Epidemiologic Survey on Alcohol and Related Conditions. *Psychology of Addictive Behaviors, 26*, 236-245. doi:10.1037/a0024855
- Spencer, C., Mallory, A. B., Cafferky, B. M., Kimmes, J. G., Beck, A. R., & Stith, S. M. (2017). Mental Health Factors and Intimate Partner Violence Perpetration and Victimization: A Meta-Analysis. *Psychology of Violence, Advance online publication*. doi:10.1037/vio0000156
- Stene, L. E., Jacobsen, G. W., Dyb, G., Tverdal, A., & Schei, B. (2013). Intimate partner violence and cardiovascular risk in women: A population-based cohort study. *Journal of Women's Health, 22*, 250-258. doi:10.1089/jwh.2012.3920
- Straus, M. A., Hamby, S. L., Boney-McCoy, S., & Sugarman, D. B. (1996). The revised Conflict Tactics Scales (CTS2): Development and preliminary psychometric data. *Journal of Family Issues, 17*, 283-316. doi:10.1177/019251396017003001
- Substance Abuse and Mental Health Services Administration (2014). *SAMHSA's concept of trauma and guidance for a trauma-informed approach*. HHS Publication No. (SMA) 14-4884. Rockville, MD: Substance Abuse and Mental Health Services Administration.
- Taft, C. T., Macdonald, A., Creech, S. K., Monson, C. M., & Murphy, C. M. (2016). A randomized controlled trial of the Strength at Home Men's Program for partner violence

- in military veterans. *The Journal of Clinical Psychiatry*, 77, 1168-1175.
doi:10.4088/JCP.15m10020
- Taft, C. T., Murphy, C. M., & Creech, S. K. (2016). *Trauma-informed treatment and prevention of intimate partner violence*. <http://dx.doi.org/10.1037/14918-000>
- Taft, C. T., Murphy, C. M., King, D. W., Musser, P. H., & DeDeyn, J. M. (2003). Process and treatment adherence factors in group cognitive-behavioral therapy for partner violent men. *Journal of Consulting and Clinical Psychology*, 71, 812-820. doi:10.1037/0022-006X.71.4.812
- Taft, C. T., Murphy, C. M., King, L. A., Dedeyn, J. M., & Musser, P. H. (2005). Posttraumatic Stress Disorder Symptomatology Among Partners of Men in Treatment for Relationship Abuse. *Journal of Abnormal Psychology*, 114, 259-268. doi:10.1037/0021-843X.114.2.259
- Taft, C. T., Schumm, J. A., Marshall, A. D., Panuzio, J., & Holtzworth-Munroe, A. (2008). Family-of-origin maltreatment, posttraumatic stress disorder symptoms, social information processing deficits, and relationship abuse perpetration. *Journal of Abnormal Psychology*, 117, 637-646. doi:10.1037/0021-843X.117.3.637
- Taft, C. T., Walling, S. M., Howard, J. M., & Monson, C. (2011). Trauma, PTSD, and partner violence in military families. In S. M. Wadsworth & D. Riggs (Eds.), *Risk and resilience in U.S. military families* (pp. 195–212). New York, NY: Springer.
http://dx.doi.org/10.1007/978-1-4419-7064-0_10
- Taft, C. T., Watkins, L. E., Stafford, J., Street, A. E., & Monson, C. M. (2011). Posttraumatic stress disorder and intimate relationship problems: A meta-analysis. *Journal of Consulting and Clinical Psychology*, 79, 22-33. doi:10.1037/a0022196

- Taft, C. T., Weatherill, R. P., Scott, J. P., Thomas, S. A., Kang, H. K., & Eckhardt, C. I. (2015). Social information processing in anger expression and partner violence in returning U.S. Veterans. *Journal of Traumatic Stress*, 28, 314-321. doi:10.1002/jts.22017
- Tay, A. K., Rees, S., Steel, Z., Liddell, B., Nickerson, A., Tam, N., & Silove, D. (2017). The role of grief symptoms and a sense of injustice in the pathways to post-traumatic stress symptoms in post-conflict Timor-Leste. *Epidemiology and Psychiatric Sciences*, 26, 403–413. <https://doi-org.proxy-bc.researchport.umd.edu/10.1017/S2045796016000317>
- Thomas, S. L., & Heck, R. H. (2001). Analysis of large-scale secondary data in higher education research: Potential perils associated with complex sampling designs. *Research in Higher Education*, 42, 517-540. <https://doi.org/10.1023/A:1011098109834>
- Tull, M. T., Jakupcak, M., Paulson, A., & Gratz, K. L. (2007). The role of emotional inexpressivity and experiential avoidance in the relationship between posttraumatic stress disorder symptom severity and aggressive behavior among men exposed to interpersonal violence. *Anxiety, Stress & Coping: An International Journal*, 20, 337-351. doi:10.1080/10615800701379249
- Umberson, D., Williams, K., & Anderson, K. (2002). Violent behavior: A measure of emotional upset?. *Journal of Health and Social Behavior*, 43, 189-206. doi:10.2307/3090196
- Valera, E. M., & Berenbaum, H. (2003). Brain injury in battered women. *Journal of Consulting and Clinical Psychology*, 71, 797-804. doi:10.1037/0022-006X.71.4.797
- van der Schalk, J., Kuppens, T., Bruder, M., & Manstead, A. R. (2015). The social power of regret: The effect of social appraisal and anticipated emotions on fair and unfair allocations in resource dilemmas. *Journal of Experimental Psychology: General*, 144, 151-157. doi:10.1037/xge0000036

- Vega, E. M., & O'Leary, K. D. (2007). Test-retest reliability of the Revised Conflict Tactics Scales (CTS2). *Journal of Family Violence*, 22, 703-708. doi:10.1007/s10896-007-9118-7
- Venta, A., Hart, J., & Sharp, C. (2013). The relation between experiential avoidance, alexithymia and emotion regulation in inpatient adolescents. *Clinical Child Psychology and Psychiatry*, 18, 398-410. doi:10.1177/1359104512455815
- Vrana, S., & Lauterbach, D. (1994). Prevalence of traumatic events and post-traumatic psychological symptoms in a nonclinical sample of college students. *Journal of Traumatic Stress*, 7, 289-302. doi:10.1002/jts.2490070209
- Weathers, F. W., Litz, B. T., Keane, T. M., Palmieri, P. A., Marx, B. P., & Schnurr, P. P. (2013). *The PTSD Checklist for DSM-5 (PCL-5)*. Boston, MA: National Center for PTSD.
- Weathers, F.W., Blake, D.D., Schnurr, P.P., Kaloupek, D.G., Marx, B.P., & Keane, T.M. (2013). *The Clinician-Administered PTSD Scale for DSM-5 (CAPS-5)*. Interview available from the National Center for PTSD at www.ptsd.va.gov.
- West, S. G., Finch, J. F., & Curran, P. J. (1995). Structural equation models with non- normal variables: Problems and remedies. In R. Hoyle (Ed.), *Structural equation modeling: Concepts, issues and applications* (pp. 56–75). Newbury Park: Sage.
- Wilkinson, G. S. (1993). *WRAT3 administration manual*. Wilmington, DE: Jastak Associates.
- Wolgast, M., Lundh, L.-G., & Viborg, G. (2013). Experiential avoidance as an emotion regulatory function: An empirical analysis of experiential avoidance in relation to behavioral avoidance, cognitive reappraisal, and response suppression. *Cognitive Behaviour Therapy*, 42, 224–232. <https://doi-org.proxy-bc.researchport.umd.edu/10.1080/16506073.2013.773059>

- Wuest, J., Ford-Gilboe, M., Merritt-Gray, M., Wilk, P., Campbell, J. C., Lent, B., & ... Smye, V. (2010). Pathways of chronic pain in survivors of intimate partner violence. *Journal of Women's Health, 19*, 1665-1674. doi:10.1089/jwh.2009.1856
- Zamir, O., Gewirtz, A. H., Labella, M., DeGarmo, D. S., & Snyder, J. (2017) Experiential avoidance, dyadic interaction and relationship quality in the lives of veterans and their partners. *Journal of Family Issues, 39*, 1191-1212. doi:10.1177/0192513X17698182
- Zarling, A., Bannon, S., & Berta, M. (2019). Evaluation of acceptance and commitment therapy for domestic violence offenders. *Psychology of Violence, 9*, 257–266. <https://doi-org.proxy-bc.researchport.umd.edu/10.1037/vio0000097>
- Zarling, A., Lawrence, E., & Marchman, J. (2015). A randomized controlled trial of acceptance and commitment therapy for aggressive behavior. *Journal of Consulting and Clinical Psychology, 83*, 199–212. <https://doi-org.proxy-bc.researchport.umd.edu/10.1037/a0037946>

