WOMEN'S INTIMATE PARTNER VIOLENCE EXPERIENCES AND HEALTH AND VOCATIONAL OUTCOMES: THE ROLE OF TRAUMA APPRAISALS

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DISSERTATION ABSTRACT

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Intimate partner violence (IPV) is a public health concern in the United States that puts women at increased risk for negative health and vocational outcomes. Severity and duration of negative outcomes, however, vary widely among trauma survivors, with some women developing more severe, negative outcomes and others developing less severe or fewer negative outcomes, or none at all. The study of cognitive appraisals for trauma, or an individual's assessment of her/his beliefs, feelings, and behaviors after a traumatic event, shows promise for illuminating what, and how, post-trauma outcomes develop for trauma survivors. Few studies have examined cognitive appraisals of trauma in relation to IPV, and none to date have examined them in relation to physical health and vocational outcomes. The purpose of this dissertation study was to use a correlational, descriptive, non-experimental, survey research design to examine whether trauma appraisals mediate the relationships among a broad range of IPV experiences and mental health, physical health, and vocational outcomes for adult women IPV survivors. Participants were a community sample of 158 women who had experienced IPV in adulthood. Participants were recruited from multiple community organizations and completed surveys online or in-person or over-the-phone with the principal investigator. Stepwise linear regressions

were used to analyze the mediation models, and linear regressions were performed to examine how specific trauma appraisals predicted physical health and vocational outcomes.

Dissertation study findings showed that trauma appraisals significantly and fully mediated the relationship between IPV experiences and mental health outcomes for women, with appraisals of fear, alienation, and anger significantly predicting mental health outcomes. When childhood betrayal trauma was controlled for within this model, however, trauma appraisals only partially mediated the relationship between IPV and trauma-related mental health. A mediation model was not used for physical health and vocational outcomes, but findings revealed that appraisals of self-blame and anger significantly predicted physical health outcomes, and appraisals of anger and shame significantly predicted vocational self-efficacy outcomes. These findings highlight the importance that trauma appraisals play in the development of a broad range of outcomes for IPV survivors. Implications for future research and practice are discussed.

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CHAPTER I

INTRODUCTION

Intimate partner violence (IPV) is a major public health concern in the United States and is particularly devastating to women. IPV can be conceptualized as a continuum of abuse that may include physical abuse, sexual abuse, threat of physical or sexual abuse, sexual coercion, psychological/emotional abuse, denial of economic resources and access to vocational opportunities, spiritual abuse, harassment, assault, or torture (Black et al., 2010; Brown, Salomon & Basuk, 1999; Chronister & McWhirter, 2003; Saltzman, Fanslow, McMahon, & Shelley, 2002; Violence Against Women Act, 2005). Women who experience IPV are at increased risk for mental health problems, particularly posttraumatic stress disorder, depression, and dissociation (Campbell, 2002; Freyd, 1996; Freyd, DePrince, & Zurbriggen, 2001; Golding, 1999; Nurius et al., 2003; Pico-Alfonso et al., 2006; Stein & Kennedy, 2001). IPV survivors are also at increased risk for a variety of negative physical health consequences, even long after the abuse has ended (Basile & Smith, 2011; Black, 2011; Black et al., 2010; Campbell, 2002). In terms of vocational outcomes, IPV negatively impacts survivors' employment, educational and career development, and ability to attain economic stability and independence (Chronister & McWhirter, 2003, 2004, 2006; Riger & Staggs, 2004; Wettersten et al., 2004).

The impact of IPV is devastating and far-reaching, and also differs for each survivor. Mental health symptom severity and duration vary widely among trauma survivors, with some women developing more severe, negative health outcomes and others developing less severe or fewer negative health outcomes, or none at all (Breslau, 2009; Kessler, Chiu, Demler, & Walters, 2005). Researchers who have explored the

relationship between different forms of IPV (i.e., physical, sexual, and psychological) and various health outcomes, have not provided consistent evidence that differences in post-trauma outcomes can be accounted for by the type or severity of IPV experienced. The question remains, *what factors influence how IPV impacts individual survivor health and vocational outcomes over time?* Identification and examination of the variables that contribute to women's differential responses to IPV is a hopeful avenue of study; such research will advance the identification of factors that can be targeted to prevent and lessen the severity of IPV consequences.

Cognitive theorists and researchers have identified cognitive appraisals as an important area of focus in the development and maintenance of PTSD, in particular (Brewin, Andrews, & Rose, 2000; DePrince, Chu, & Pineda, 2011; Ehlers & Clark, 2000; Foa, Ehlers, Clark, Tolin, & Orsillo, 1999; Kaysen, Morris, Rizvi, & Resick, 2005). Ehlers and Clark (2000) conceptualize PTSD as resulting from negative cognitive appraisals about a traumatic event (i.e., "nowhere is safe"), the way an individual behaved during or after the event (i.e., "I'm responsible for what happened"), and/or post-traumatic sequelae (i.e., "I'm losing my mind" or "my body is ruined"). Ehlers and Clark argue that individuals who make these kinds of negative cognitive appraisals after experiencing a trauma maintain a sense of current threat, while individuals who do not make similar appraisals after a traumatic event do not have the same experience of current threat, and do not go on to develop PTSD. Though the literature on cognitive appraisals of trauma, or trauma appraisals, focuses primarily on PTSD as a post-trauma outcome (Brewin et al., 2000; Ehlers & Clark, 2000; Fairbrother & Rachman, 2006; Foa et al., 1999; Kaysen et al., 2005; O'Donnell, Elliot, Wolfgang, & Creamer, 2007)

researchers have demonstrated that trauma appraisals are related to a variety of mental health outcomes including depression (Andrews, Brewin, Rose, & Kirk, 2000; DePrince et al., 2011) and dissociative problems (DePrince et al., 2011; Feeny, Zoellner, & Foa, 2000).

Researchers, to date, have examined appraisals of only a single incident of trauma and have only examined appraisals in relation to mental health outcomes. Though individuals may experience a wide variety of mental health concerns in the aftermath of trauma, trauma appraisal research has maintained a narrow focus on the mental health outcome of PTSD. Due to this focus, researchers have primarily examined appraisals that fit with a PTSD diagnosis, such as fear. Moreover, there have only been two studies published (Babcock & DePrince, 2012; DePrince et al., 2011) examining trauma appraisals with a sample of women who had experienced IPV, and the generalizability of those findings is limited because of narrow inclusion criteria.

The purpose of this dissertation study was to examine how a variety of trauma appraisals were related to adult women IPV survivors' different mental health, physical health, and vocational outcomes. Study findings contribute uniquely to the literature by (a) measuring women's appraisals of a broad array of IPV experiences as opposed to only a single incident of trauma as trauma appraisal researchers have done exclusively up to this point and (b) examining women's physical health and vocational outcomes in addition to trauma-related mental health outcomes.

This proposal is organized as follows. Chapter II provides a review of (1) established relationships between IPV and the mental health, physical health, and vocational outcomes; (2) literature on trauma appraisals and how they relate to IPV; and

(3) research questions and hypotheses for the present study. Chapter III provides details about the methods that were used to complete this dissertation study. Chapter IV provides the study results, and Chapter V provides a discussion of the study results.

CHAPTER II

REVIEW OF THE LITERATURE

This chapter is organized as follows: First, I discuss the prevalence rates and statistics for IPV victimization for women in the United States. Then, I discuss the impact that IPV has on women's mental health, particularly the mental health outcomes of PTSD, depression, anxiety, and dissociation, physical health, and vocational development. Next I highlight the ways in which cognitive appraisal theory and trauma appraisals have been useful for understanding post-trauma outcomes for survivors of various kinds of traumatic events. I then describe how trauma appraisals could be useful for better understanding mental health, physical health, and vocational outcomes for women survivors of IPV. Finally, I provide a statement of the study purpose, and outline my research questions and hypotheses.

Women and IPV

National survey data reveal that women are profoundly affected by IPV (Black et al., 2010; Tjaden & Thoennes, 2000). Women comprise the overwhelming majority (85%) of reported IPV victims in the United States (Bureau of Justice Statistics, 2003), and more than 1 in 3 women (35.6%) in the United States have experienced rape, physical violence, and/or stalking by an intimate partner during her lifetime (Black et al., 2010). About 1 in 4 women (24.3%) have experienced severe physical violence by an intimate partner (e.g., hit with a fist or something hard, beaten, slammed against something), and nearly half of all women (48.4%) in the United States have experienced psychological aggression by an intimate partner at some point during their lifetime (National Center for Injury Prevention and Control, 2010). Moreover, past experiences of

IPV increase women's risk for violence recurrence, more serious injury, and fatality, with the vast majority of IPV homicide victims being women (Black et al., 2011).

There are several noteworthy limitations involved when interpreting IPV statistics and applying them to IPV intervention (Chronister & Aldarondo, 2012). First, many incidence and prevalence rates do not account for individuals' experiences of emotional or psychological, social, or economic abuse, or the impact of those experiences (Chronister & McWhirter, 2006; Hamby, 2009). Second, IPV is a largely underreported crime in the United States, with estimates at 25% of physical assaults, 20% of rapes, and 50% of stalking perpetrated against females by intimate partners being reported to the police (Bureau of Justice Statistics, 2003). Finally, men also experience IPV at alarming rates. National study data show that 28.5% of men in the United States have experienced rape, physical violence, or stalking from an intimate partner (Black et al., 2011). National data also show that 92.1% of men who experience IPV experience physical violence only, while more than 35% of women who experience IPV experience multiple forms of abuse (Black et al., 2011). Attention to men's experiences of IPV is important. Provided that women are at increased risk for experiencing IPV, and in particular multiple forms of IPV, the focus of this dissertation study was adult women's IPV experiences and outcomes.

The Impact of IPV on Women's Mental Health

Women who have experienced IPV are at increased risk for developing trauma-related psychological distress and mental health disorders including alcohol and drug abuse, major depressive and anxiety disorders, post-traumatic stress disorder (PTSD), dissociative disorders, obsessive compulsive disorder, and brain injuries (Campbell,

2002; Freyd, 1996; Freyd et al., 2001; Golding, 1999; Nurius et al., 2003; Pico-Alfonso et al., 2006; Stein & Kennedy, 2001; Valera & Berenbaum, 2003). In the following sections I will discuss the relationships between IPV and the mental health outcomes of PTSD, depression, anxiety and dissociation for adult women, the outcomes of focus for this study.

Post-Traumatic Stress Disorder (PTSD)

PTSD is the mental health consequence most frequently associated with IPV (Campbell, 2002; Golding, 1999), with prevalence rates ranging from 33% to 84% (Astin, Lawrence, & Foy, 1993; Kemp, Rawlings, & Green, 1991) of survivors eligible for a diagnosis. The fifth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-V, APA, 2013) lists as criteria for the PTSD diagnosis the following: (A) that a person has experienced exposure to actual or threatened death, serious injury, or sexual violence; (B) presence of intrusion symptoms related to the traumatic event; (C) persistent avoidance of stimuli associated with the traumatic event; (D) negative alterations in cognitions and mood associated with the traumatic event; (E) marked alterations in arousal and reactivity associated with the traumatic event; (F) duration of the disturbance is more than one month; and (G) the disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.

There are several issues to note when examining PTSD in relation to IPV. First, Criterion A of the diagnosis precludes psychological abuse, or even physical abuse that does not result in serious injury, from being considered. Research has demonstrated, however, that psychological abuse does indeed predict PTSD (Arias & Pape, 1999;

Coker, Weston, Creson, Justice, & Blakney, 2005; Norwood & Murphy, 2012; Pico-Alfonso, 2005; Street & Arias, 2001). Using data from the National Violence Against Women Survey, Coker and colleagues (Coker et al., 2005) found that psychological abuse was as strongly associated with PTSD symptoms as physical abuse. In two studies of women recruited from battered women's shelters, researchers found psychological abuse to be associated with PTSD symptoms, whereas physical abuse was not (Arias & Pape, 1999; Street & Arias, 2001). Pico-Alfonso (2005) assessed various types of IPV experienced by survivors (physical, psychological, and sexual) and found that although all types of abuse predicted PTSD, psychological abuse was the strongest predictor, whether in conjunction with other types of abuse or alone. Further support for the importance of considering emotional/psychological abuse is provided by a study conducted by Norwood and Murphy (2012) who found that sexual coercion (which resembles psychological abuse) was more predictive of PTSD symptoms than sexual violence (which resembles physical abuse) for IPV survivors. Criterion A for PTSD is therefore problematic, and not inclusive of the broad array of traumatic experiences that women survivors of IPV have faced.

Another issue that presents itself when considering the PTSD diagnostic criteria in the DSM-5 for IPV survivors is that none of the criteria account for the relationship between the perpetrator of abuse and the survivor, or the potentially ongoing, cumulative nature of IPV. Experiencing abuse from a partner, or experiencing ongoing relational abuse, involves a relational betrayal and may be cognitively processed very differently from non-betrayal traumas (Freyd, 1996; Freyd, DePrince, & Gleaves, 2007; Freyd et al., 2001). IPV and other forms of betrayal trauma (i.e., child abuse) are experiences that are

quite distinct from combat trauma, motor vehicle accidents, or single incidences of assault by a stranger, because they involve a betrayal by a close, trusted other, often in an ongoing manner.

It is also of note that Criterion D of the PTSD diagnosis in the DSM-5 highlights the importance of alterations in cognitions after a traumatic experience. The DSM-IV-TR (APA, 2000) maintained that one must have a sense of fear, helplessness, or horror during a traumatic event to meet criteria for a PTSD diagnosis. This has been expanded in the present edition of the DSM to include "persistent and exaggerated negative beliefs or expectations about oneself, others, or the world." This is a hopeful shift, in that it allows for a broader range of cognitive appraisals to be included in the conceptualization of PTSD, as research has demonstrated that multiple cognitive appraisals outside fear, helplessness, and horror impact the development of trauma-related mental health outcomes (DePrince, Zurbriggen, Chu, & Smart, 2010; DePrince et al., 2011; Martin, Cromer, DePrince, & Freyd, 2013).

Finally, many feminist scholars have criticized the use of a PTSD diagnosis for trauma survivors. Burstow (2003) argues that PTSD is a "grab bag of context-less symptoms, divorced from…the social structures that give rise to them." The PTSD diagnosis aims to tie mental health symptoms with specific traumatic events, and does not consider in its conceptualization of trauma the impact of people's daily experiences of oppression. In this way, Burstow (2003) posits, PTSD individualizes social problems (i.e., IPV, sexism, racism, classism, ableism, homophobia, etc.) and pathologizes traumatized people. Further, the PTSD diagnosis comes out of a deficiency model of understanding trauma, wherein people who have experienced trauma engage in

"dysfunctional" behaviors, thought patterns, or reactions, and need to be returned to normalcy by mental health professionals. This conceptualization of trauma disempowers the survivor to name and evaluate her own experience, and fails to honor the ways in which her symptoms are functional coping and survival strategies (Burstow, 2003; Freyd, 1996; Herman, 1992).

Depression

Experiences of IPV are highly correlated with women's development of depression, low self-esteem, and increased risk for suicide (Browne, 1993; Campbell, 2002; Golding, 1999; McCauley et al., 1995; Peterson, Gazmararian, & Clark, 2001; Pico-Alfonso et al., 2006; Stein & Kennedy, 2001). In a meta-analysis of 18 studies, the pooled prevalence of depression among women IPV survivors was 47.6%, which is much higher than the rate of 18.6% for the general population (Golding, 1999). Women who have experienced IPV may have chronic depression that is exacerbated by the stress of a violent intimate partnership, but there is also evidence that initial episodes of depression can be triggered by IPV (Campbell & Soeken, 1999; Silva, McFarlane, Soeken, Parker, & Reel, 1997). Researchers also have demonstrated that women IPV survivors may continue to struggle with depression long after the abuse has ended (Campbell, 2002). Women may also employ coping strategies during or after experiences of abuse that exacerbate depression, such as substance use.

Anxiety

IPV survivors also experience anxiety symptoms at high rates (Black et al., 2010; Pico-Alfonso et al., 2006). Prevalence research on IPV outcomes tends to focus on PTSD symptoms as opposed to other anxiety disorders, though women survivors of IPV are at

higher risk for developing anxiety disorders (Golding, 1999). Women who experienced psychological abuse from an intimate partner have been found to be at higher risk for developing anxiety symptoms than women who experience physical abuse (Pico-Alfonso et al., 2006). These findings highlight the importance of considering anxiety problems beyond PTSD in relation to women's experiences of IPV.

Dissociation

Dissociation involves the fragmentation of typically connected aspects of information processing, particularly as they relate to identity (DePrince et al., 2011), and can have a negative impact on memory and awareness of reality, and lead to a fragmented sense of self (Freyd, 1996; Freyd et al., 2007; Freyd et al., 2001). Researchers have empirically identified a link between an individual's feelings of fear during a traumatic event and her/his dissociative symptoms during and after the event (Gershuny, Cloitre, & Otto, 2003; Griffin, Resick, & Mechanic, 1997; Kaysen et al., 2005). In the absence of escape, individuals may cope with intense fear by dissociating (Kaysen et al., 2005). Though there has been less research on IPV-specific trauma and dissociation symptoms, researchers have shown a clear relationship between intimate partner sexual assault and dissociation (Temple, Weston, Rodriguez, & Marshall, 2007), and non-sexual IPV that was reported to police and dissociation (DePrince et al., 2011).

It is important to consider the relationship between the survivor and perpetrator with regard to the development of post-trauma dissociative symptoms. For example, Temple and colleagues (2007) found that sexual victimization by an intimate partner was related to dissociative symptoms, whereas sexual victimization by a non-intimate partner was not. These authors point out that fear functions differently during IPV experiences in

comparison to other traumatic experiences; that is, fear is often a tool used by perpetrators to control survivors over time. Thus, survivors of IPV may experience fear that is not time-limited like with an assault. Freyd and colleagues (1996, 2001, 2007) posit that traumas that involve a social betrayal (i.e., any form of IPV) are processed differently than other traumatic experiences, and are often fragmented from conscious awareness when maintaining a relationship with the perpetrator is integral to an individual's psychological or physical survival. According to Freyd, dissociation, and/or maintaining an unawareness of relational betrayal, can serve as cognitive strategies for maintaining attachments within important relationships that are abusive. For example, DePrince, Chu, and Pineda (2011) found an inverse relationship between trauma appraisals of betrayal and dissociation; that is, women who identified an IPV event as a betrayal were less likely to report having experienced dissociative symptoms. Although researchers have established a link between traumatic events and dissociation (Gershuny et al., 2003; Griffin et al., 1997; Kaysen et al., 2005), and IPV and dissociation (DePrince et al., 2011; Temple et al., 2007), further research is needed to understand why some women who have been in IPV relationships develop dissociative symptoms and some do not.

The Impact of IPV on Women's Physical Health

IPV survivors are at increased risk for a variety of physical health consequences, even long after the abuse has ended (Campbell, 2002). Researchers have shown that survivors of IPV make more visits to health providers over their lifetime, have more hospital stays, and have longer duration of hospital stays (Basile & Smith, 2011; Black, 2011). IPV is positively correlated with pain and diabetes symptoms (Kendall-Tackett,

Marshall, & Ness, 2000; Wuest et al., 2010). Results from the National Intimate Partner and Sexual Violence Survey (Black et al., 2010) indicated that women in the United States who had experienced IPV were significantly more likely than women who had not experienced IPV to have asthma, irritable bowel syndrome, diabetes, frequent headaches, chronic pain, difficulty sleeping, and physical activity limitations. Women who were injured because of IPV were more likely to have been injured in the head, face, neck, thorax, breasts, and abdomen than were women who had incurred injuries in other ways that is, not by violence perpetrated by an intimate partner (Grisso et al., 1999). Gynecological problems are also a major health concern for IPV survivors, and are among the most consistent, longest lasting physical health outcomes of IPV (Campbell, 2002). Some of these gynecological problems include poor pregnancy outcomes, sexually transmitted infections, vaginal bleeding or infection, fibroids, decreased sexual desire, genital irritation, pain during intercourse, chronic pelvic pain, and urinary tract infections (Campbell, 2002; Coker, Smith, Bethea, King, & McKeown, 2000; Collet, Cordle, Stuart, & Jagger, 1998; Koss, Koss, & Woodruff, 1991; Letourneau, Holmes, & Chasendunn-Roark, 1999; McCauley et al., 1995; Tollestrup et al., 1999).

There are a number of mechanisms by which IPV may be related to physical health. Some health conditions may result directly from physical injuries sustained through IPV experiences (Black, 2011). Other health conditions may result from the adoption of health-risk behaviors to cope with IPV, such as smoking and alcohol and drug use (Campbell, 2002; Coker et al., 2002). Another mechanism by which IPV may affect physical health is the biological response to chronic stress that is associated with experiences of violence and trauma (Sutherland, Bybee, & Sullivan, 2002). It is important

that researchers account for the breadth of health outcomes that develop for IPV survivors, and the different mechanisms by which they develop.

Survivors may be exposed to physical, sexual, and/or psychological IPV, but most researchers have focused only on the impact of physical IPV on women's physical health outcomes (Campbell, 2002). Although several researchers have accounted for the concomitance of sexual and psychological IPV with physical IPV (e.g., Bachman & Saltzman, 1995; Golding, 1999), very few have assessed the impact of psychological IPV alone on women's health (Campbell, 2002). The proposed dissertation study will account for a broad range of IPV experiences in relation to physical health outcomes, including psychological and sexual abuse.

The Impact of IPV on Women's Vocational Outcomes

IPV negatively affects survivors' employment, educational and career development, as well as their ability to attain economic stability and independence (Chronister & McWhirter, 2003; Riger & Staggs, 2004; Wettersten et al., 2004). National Center for Injury Control and Prevention (2003) data revealed that women lose nearly eight million days of paid work each year in the United States because of IPV. Many survivors remain in or return to abusive partnerships because they do not have the economic or housing resources to support themselves and/or their families (Dearwater, Coben, & Campbell, 1998; Riger & Staggs, 2004). Sullivan and Bybee (1999) posit that women often stay in abusive relationships not only because they have few economic resources, but also because they have low self-efficacy that they could create a different life for themselves and their children. Self-efficacy refers to an individual's belief in her/his own ability to exercise some measure of control over her/his own functioning

(Bandura, 1997), and impacts the economic and vocational development of IPV survivors (Chronister & McWhirter, 2004, 2006). Not only do abusers reinforce women's economic dependency through controlling and denying women access to financial resources and employment opportunities (Bornstein, 2006), but abusive partners also use different forms of abuse to systematically destroy survivors' confidence and self-efficacy for identifying and pursuing economic opportunities (Chronister & McWhirter, 2003; Lantrip, Luginbuhl, Chronister & Lindstrom, 2013).

In sum, the impact of IPV is far-reaching and enduring, and is detrimental to women survivors' mental and physical health as well as vocational development. The focus of the proposed study was to examine the relationship between women's experiences of IPV and trauma-related mental health, physical health, and vocational self-efficacy. It was hypothesized that women's trauma appraisals would mediate the relationship between IPV and the aforementioned health and vocational outcomes. In the following sections, cognitive appraisal theory and its application to the study of trauma are reviewed.

Cognitive Appraisal Theory and Trauma Appraisals

Although researchers have identified significant links between IPV and negative mental health, physical health, and vocational self-efficacy outcomes, it is still unclear why some women develop more severe negative health and vocational outcomes and others develop less severe or fewer negative health and vocational outcomes, or none at all. Cognitive appraisal theory has provided an avenue for examining survivors' differential responses to traumatic experiences. According to cognitive appraisal theory, individuals' stress levels and emotional reactions are directly affected by their

interpretation and evaluation of the event that triggers the stress, and of their ability to cope with the event (Lazarus, 1982; Smith & Lazarus, 1993). Cognitive researchers and theorists have thus highlighted the influence that cognitive appraisals of a stressful event and an individual's ability to cope with a stressful event have on the development of negative emotion and affect. More recently, scholars have applied cognitive appraisal theory to individuals' development of differential responses to trauma, particularly how PTSD develops and is maintained. Trauma appraisals refer specifically to the assessments an individual makes about her beliefs, feelings, and behavior around a traumatic experience. Previous theoretical and empirical work on trauma suggests that the way people cognitively process and interpret traumatic experiences and their consequences may be important for the development and maintenance of PTSD and other poor mental health outcomes (e.g., Ehlers & Clark, 2000; Freyd, 1996; Janoff-Bulman, 1992; McCann & Pearlman, 1990; Resick & Schnicke, 1993).

Ehlers and Clark (2000) developed a cognitive model of PTSD that focuses on cognitive appraisals, and that has served as a foundation for much subsequent trauma appraisal research. They posit that if an individual processes a traumatic event and/or its sequelae in a way that produces a serious sense of current threat when remembered, she will develop PTSD. The threat can be external (i.e., view of the world as a dangerous place) or internal (i.e., view of oneself as unacceptable/incompetent). According to Ehlers and Clark, when a trauma survivor recalls a traumatic event, their memory of the trauma is biased by their appraisals, and they selectively retrieve information that is consistent with these appraisals. For example, appraisals of the following can lead to a sense of current threat: (1) the fact that trauma happened (i.e., "nowhere is safe" or "the next one

will happen soon"); (2) the fact that the trauma happened to the individual (i.e., "I attract disaster" or "others can see that I am a victim"); (3) behavior and emotion during the trauma (i.e., "I cannot cope with stress" or "it's my fault this happened"); (4) initial PTSD symptoms (i.e., "my personality has permanently changed for the worse" or "I'm going mad"); (5) others' reactions (i.e., "I cannot feel close to anyone" or "I cannot rely on other people"); (6) physical consequences (i.e., "my body is ruined" or "I will never be able to lead a normal life again"); and (7) loss of resources (i.e., "I will lose my children" or "I will be homeless"). These appraisals maintain PTSD by encouraging problematic coping strategies like avoidance, thought suppression, and selective attention to threat cues, and by producing negative emotion like anger, depression, and anxiety.

The importance of understanding a trauma survivor's cognitive appraisals and their relationship to psychological outcomes is made explicit in the PTSD diagnostic criteria D, which requires that trauma survivors experience negative alterations in cognitions or mood (APA, 2013). Although many researchers have focused on the link between appraisals of fear and PTSD, some have shown that a broader range of post-trauma appraisals are associated with PTSD symptoms (Andrews, 1995; Andrews et al., 2000; DePrince et al., 2011; DePrince et al., 2010; Feeny et al., 2000; Martin et al., 2013). For example, Andrews and colleagues (2000) and Andrews (1995) found shame to be a significant mediator of the relationship between a traumatic event and the development of PTSD and depression for survivors of violent crimes and abuse. Feeny and colleagues (2000) highlighted the importance of anger in the development of PTSD and dissociation for female assault victims. It is important to examine how multiple post-

trauma appraisals may be at play in the development of trauma-related mental health outcomes.

Though the literature on cognitive appraisals of trauma, or trauma appraisals, focuses primarily on PTSD as a post-trauma outcome (e.g., Brewin et al., 2000; Ehlers & Clark, 2000; Foa et al., 1999), researchers have demonstrated that trauma appraisals are related to a variety of mental health outcomes including depression (Andrews et al., 2000; DePrince et al., 2011) and dissociative problems (DePrince et al., 2011; Feeny et al., 2000). Trauma appraisals account for variance in trauma-related psychological distress above and beyond characteristics of the trauma itself (Deprince et al., 2011), and different kinds of trauma appraisals besides fear (i.e., shame, anger, self-blame) are at play in the development of trauma-related psychological distress (Andrews et al., 2000; DePrince et al., 2011; DePrince et al., 2010; Ehlers & Clark, 2000; Feeny et al., 2000; Martin et al., 2013). Multiple kinds of trauma appraisals are thus an important focus for understanding the development of different forms of trauma-related psychological distress.

Researchers have been using, more recently, the Trauma Appraisal Questionnaire (TAQ; DePrince et al., 2010) to assess six different post-trauma appraisals of betrayal, self-blame, fear, alienation, anger, and shame (DePrince et al., 2011; Martin et al., 2013). Considering a broader range of post-trauma appraisals may be particularly important for understanding the diverse forms of traumatic experiences that occur with IPV, as well as the diverse forms of psychological distress that can arise from those experiences and how to treat the distress. It is also of note that different appraisals may be activated at different points during and after the trauma (Ehlers & Clark, 2000), which highlights the

importance of measuring a range of appraisals at once rather than examining the extent to which an individual endorses one or two appraisals of the trauma she experienced. The current study involved measurement of betrayal, self-blame, fear, alienation, anger, and shame using the TAQ (DePrince et al., 2010).

Trauma Appraisals and IPV

Trauma appraisals have major implications for understanding the mental health outcomes of individuals who experience IPV. Researchers, to date, have focused primarily on examining physical trauma and its relationship to trauma appraisals and mental health outcomes (Andrews et al., 2000; Brewin et al., 2000; Feeny et al., 2000). Few researchers have studied sexual trauma and trauma appraisals (Breitenbecher, 2006), and none have focused on psychological abuse and trauma appraisals. Most research about the role of trauma appraisals in the development of various mental health outcomes has involved participants who experienced trauma in the context of motor vehicle accidents, combat, or physical or sexual assaults by non-intimate partners, or has failed to define the relationship between the survivor and the perpetrator. Considering a broad range of experiences that may constitute traumatic events, as well as the relationship between the perpetrator and survivor, is important for understanding the development of post-trauma outcomes for IPV survivors.

Freyd's (1996) Betrayal Trauma Theory highlights the importance that the relationship with the perpetrator can have on the survivor of an interpersonal trauma, such as IPV. Betrayal Trauma Theory posits that traumas perpetrated by individuals whom survivors care for, depend on, or trust are processed differently than traumas low in betrayal (Freyd et al., 2001). When a survivor views a perpetrator as being integral to

his/her psychological or physical survival, it is advantageous to maintain the interpersonal connection and attachment with the perpetrator (Freyd, 1996). Thus, survivors of betrayal traumas may fail to identify the experience as abusive and experience a "betrayal blindness" that allows them to maintain their connection with the perpetrator (Freyd, 1996). Certain cognitive appraisals, such as appraisals of betrayal or self-blame, may hinder or facilitate "betrayal blindness," and impact whether a survivor can maintain an attachment with a perpetrator. Betrayal Trauma Theory is a helpful framework through which to understand IPV and the way in which trauma appraisals function for IPV survivors.

Babcock and DePrince (2012) employed Betrayal Trauma Theory to examine how trauma appraisals of self-blame functioned for IPV survivors. They found that women who experienced childhood abuse high in betrayal trauma reported significantly higher appraisals of self-blame after adult IPV. This finding highlights the importance of considering childhood experiences of betrayal trauma when examining the impact of adult forms of betrayal trauma. These researchers also found that women who reported more severe forms of IPV tended to engage in more self-blame than women who reported less severe forms of IPV. They posit that women who experienced IPV of greater severity may have needed to utilize higher degrees of self-blame to navigate the abusive relationships with their intimate partners. Martin and colleagues (2013) uniquely examined how trauma appraisals mediated the relationship between betrayal traumas and cumulative traumas and mental health outcomes, and found that trauma appraisals predicted outcomes over and above trauma factors. More Betrayal Trauma Theory-

informed research is needed to enhance our understanding of the relationship between trauma appraisals and trauma-related mental health outcomes for adult survivors of IPV.

The only researchers to examine the relationship between trauma appraisals and women's experiences of IPV are DePrince et al. (2011) and Babcock and DePrince (2012). Both studies utilized samples of women who had experienced IPV, which was defined to include only those experiences that had happened during the past month, had been reported to police, and excluded sexual abuse. These samples lack generalizability to women who have experienced IPV earlier in their past, did not have their abuse experiences reported to authorities, and/or who experienced sexual abuse. Babcock and DePrince (2012) did not examine any adverse mental health outcomes for the IPV survivors in their study. All previous studies on trauma appraisals have involved individuals' appraisals of a singular traumatic event, as opposed to traumatic events over time. To date, no other research has been conducted to examine the relationship between different types of IPV experiences, the diverse trauma appraisals measured by the TAQ (DePrince et al., 2010), and a broad range of health and vocational outcomes.

Researchers also have generally failed to use consistent measurement and operational definitions of trauma appraisals across studies, often using different measures for different appraisals within the same study. For example, Andrews and colleagues (2000) assessed trauma appraisals in the development of PTSD for violent crime survivors using a semi-structured interview in which participants used a 4-point scale to rate the frequency and intensity of their feelings of shame, and a different 5-point scale to rate only the intensity of their feelings of anger following the assault. Previous trauma appraisal research has also focused on participants who have experienced single, as

opposed to multiple, physical traumas (Andrews et al., 2000, Brewin et al., 2000; DePrince, et al., 2011; Feeny et al., 2000), and all studies of trauma appraisals have measured survivors' appraisals of only one traumatic event (i.e., the "worst" event, or the event they feel had the greatest impact on them).

The limitation of this previous research is that (1) IPV often involves several types of trauma (physical, sexual, and psychological), with psychological abuse playing an especially important role in the development of different outcomes; (2) women may make multiple appraisals about their IPV experiences, which need to be measured reliably and consistently; and (3) IPV often involves a multiplicity of traumatic events over time. Trauma appraisals may also have major implications for understanding the development of other outcomes relevant to IPV survivors, particularly physical health and vocational outcomes. To date, (4) researchers have not examined how trauma appraisals may relate to outcomes other than mental health.

Trauma appraisals are likely to impact the development of physical health and vocational outcomes for women survivors of IPV in addition to mental health outcomes. Many physical health outcomes for IPV survivors are affected by the adoption of coping behaviors that put women's health at-risk, such as substance use (Campbell, 2002; Coker et al., 2002), and by the stress associated with abuse (Sutherland et al., 2002). Trauma appraisals may play a role in the adoption of certain coping behaviors and the amount of stress experienced by survivors, therefore impacting their health outcomes. Vocational self-efficacy, or a woman's belief in her own ability to exercise some measure of control over her vocational functioning (Bandura, 1997), is also likely affected by the kinds of assessments she makes about her beliefs, feelings, and behavior associated with her IPV

experiences. For example, if a woman identifies that she believes her IPV experiences happened to her because she is/was a bad person (self-blame), this appraisal will likely affect her ability to believe that she has control over her future. This dissertation study was an exploration, for the first time, of the relationship between trauma appraisals and physical health and vocational self-efficacy outcomes.

Summary and Study Purpose

There is a growing body of empirical evidence that shows that trauma appraisals mediate the relationship between individuals' traumatic experiences and subsequent mental health outcomes. Researchers have not yet studied the relationship between trauma appraisals and a broad range of women's IPV experiences. Researchers have previously examined solely appraisals of single traumatic events. Failure to measure IPV experiences over time is problematic because IPV can involve several different forms of trauma (physical, sexual, and psychological), and a multiplicity of events over time. Researchers have also measured trauma appraisals inconsistently, often using different measures for different appraisals in the same study (e.g., Andrews et al., 2000) or measuring only one appraisal for a traumatic event. Women may make multiple appraisals about their IPV experiences, however, and these multiple appraisals need to be accounted for and measured consistently and reliably. Finally, trauma appraisals have only been examined with regard to mental health outcomes for trauma survivors. This study was an examination of whether or not trauma appraisals mediated the relationship between IPV and mental health outcomes as well as physical health and vocational outcomes.

The purpose of this dissertation study was to use a non-experimental, descriptive, correlational survey study design to explore the role of trauma appraisals in the development of mental health, physical health, and vocational outcomes for women survivors of IPV. This study was an attempt to advance the extant literature by addressing some of the scholarship gaps reviewed. First, the present study included a broad measurement of women's IPV experiences (physical, sexual, and psychological) during their lifetime. Second, the study included measurement of both physical and mental health outcomes as well as vocational outcomes that were hypothesized to be associated with IPV and women's trauma appraisals. To date, no researchers have examined the relationship between trauma appraisals and physical or vocational outcomes for any population.

The primary research questions were:

Research Question 1: Do trauma appraisals mediate the relationship between women's IPV experiences and trauma-related mental health outcomes? How do specific appraisals differ in terms of predicting trauma-related mental health outcomes? Do trauma appraisals mediate the relationship between IPV experiences and trauma-related mental health outcomes even when controlling for childhood betrayal trauma?

Research Question 2: Do trauma appraisals mediate the relationships between women's IPV experiences and physical health outcomes? How do specific appraisals differ in terms of predicting physical health outcomes?

Research Question 3: Do trauma appraisals mediate the relationships between IPV variables and vocational self-efficacy? How do specific appraisals differ in terms of predicting vocational self-efficacy?

It was hypothesized that trauma appraisals would mediate the relationship between participants' IPV experiences and trauma-related mental health outcomes, physical health outcomes and vocational self-efficacy and employment outcomes (see Figures 1-3). Provided the dearth of research on the relationship between different types of IPV experiences, trauma appraisals, and health and vocational outcomes, the exact nature of the relationships between *each type* of trauma appraisal and *each health and employment outcome* was not hypothesized.

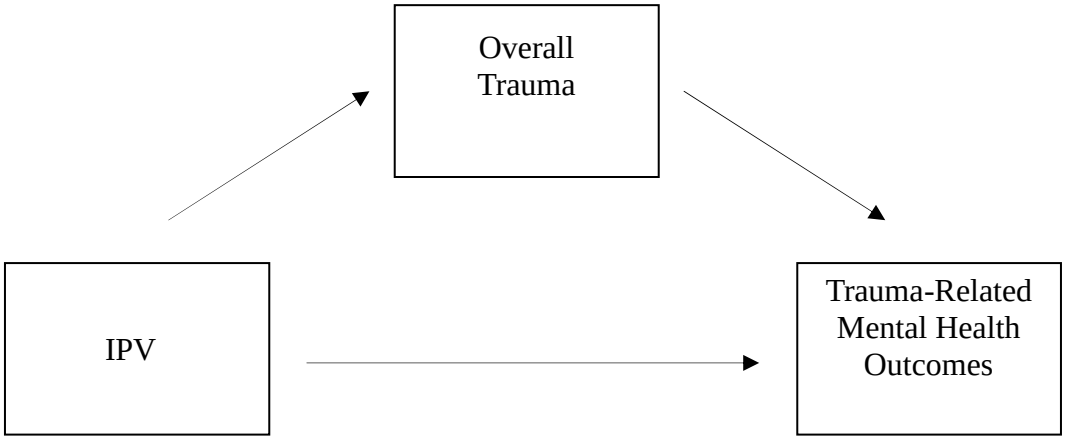


Figure 1. Hypothesized relationships among IPV, trauma appraisals, and mental health outcomes.

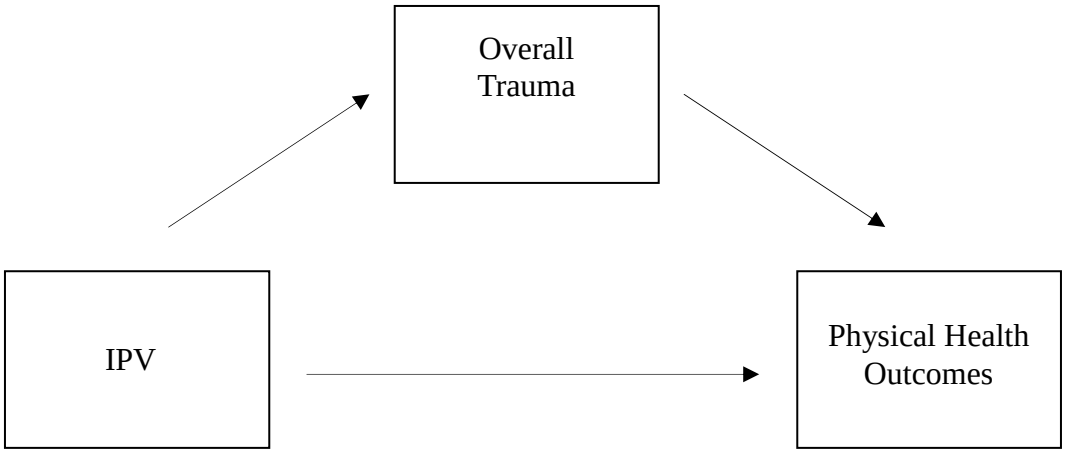


Figure 2. Hypothesized relationships among IPV, trauma appraisals, and physical health outcomes.

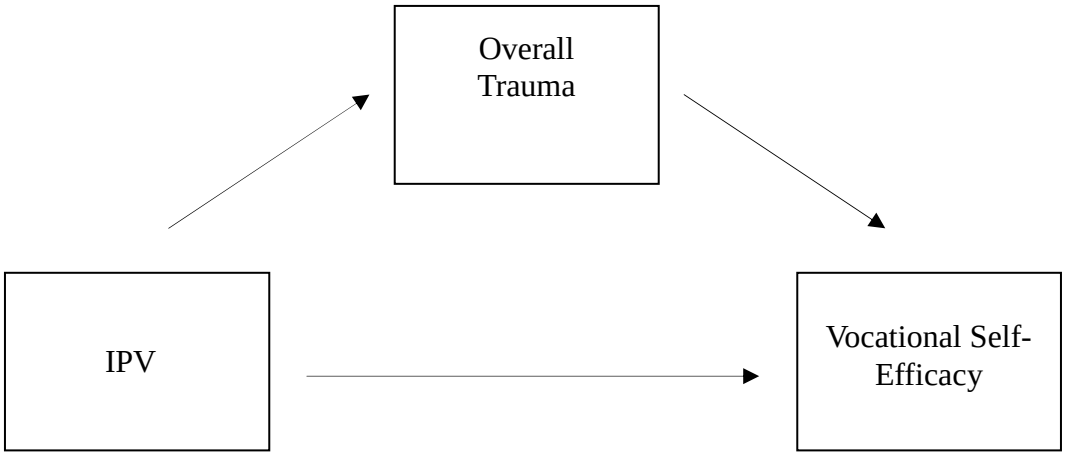


Figure 3. Hypothesized relationships among IPV, trauma appraisals, and vocational outcomes.

CHAPTER III

METHODS

Participants

A power analysis was conducted using G*Power 3.1 to determine the number of participants required to attain adequate power. It was determined that 187 participants would be required to attain a power of .80 with an $\alpha = .05$; 149 participants would be required to attain a power of .60 with an $\alpha = .05$; and 89 participants would be required to attain a power of .40 with an $\alpha = .05$. The minimum sample size was set originally at 100, with a target sample size of 190.

A total of 158 women completed study surveys. Participants were individuals who (a) identified as women; (b) were age 18 years or older; and (c) who self-reported that they had experienced abuse (includes emotional, physical, sexual, and economic abuse) from an intimate partner at some point during their adult years. Participant demographics are presented in Table 1.

Table 1

Participant Demographics

	N	*%*	*M*	*SD*
Age	152	96.2	39.20	12.23
19-23	12	7.6	-	-
24-28	23	14.6	-	-
29-33	20	12.7	-	-
34-38	24	15.2	-	-
39-43	17	10.7	-	-
44-48	20	12.6	-	-
49-53	15	9.5	-	-
54-58	11	7.0	-	-
59-63	6	3.7	-	-
64+	4	2.5	-	-
Not reported	6	3.8	-	-

(*Table 1 Continued*).

	N	*%*	*M*	*SD*
Method	158	100.0	-	-
In-person	32	20.3	-	-
Online	104	65.8	-	-
By phone	22	13.9	-	-
Not reported	0	0	-	-
Race/Ethnicity	158	100.0	-	-
African American	10	6.3	-	-
White/Caucasian	111	70.3	-	-
Asian/Asian American	4	2.5	-	-
Hispanic	8	5.1	-	-
Native American/Alaskan	20	12.7	-	-
Native Hawaiian/Pac. Islander	1	0.6	-	-
Other	4	2.5	-	-
Not reported	0	0.0	-	-
Highest level of education	157	99.4	-	-
No high school	2	1.3	-	-
Some high school	23	14.6	-	-
Graduated high school	20	12.7	-	-
Some college	55	34.8	-	-
Assoc. degree/voc. training	19	12.0	-	-
Bachelors degree	31	19.6	-	-
Graduate degree	7	4.4	-	-
Not reported	1	0.6	-	-
Current employment status	156	98.7	-	-
Employed	54	34.2	-	-
Unemployed	102	64.6	-	-
Not reported	2	1.3	-	-
Disability	157	99.4	-	-
Yes	64	40.5	-	-
No	93	58.9	-	-
Not reported	1	0.6	-	-
Currently in a romantic relationship	157	99.4	-	-
Yes	70	44.3	-	-
No	87	55.1	-	-
Not reported	1	0.6	-	-
# of abusive romantic relationships (since age 18)	155	98.1	3.49	4.86
0	1	0.6	-	-
1	35	22.2	-	-
2	41	25.9	-	-
3	36	22.8	-	-
4	15	9.5	-	-
5	9	5.7	-	-

(*Table 1 Continued*).

	N	*%*	*M*	*SD*
6	5	3.2	-	-
7	1	0.6	-	-
8	4	2.5	-	-
9	1	0.6	-	-
10	4	2.5	-	-
10+	3	1.9	-	-
Not reported	3	1.9	-	-
Disclosed abusive experiences	158	100.0	-	-
Yes	139	88.0	-	-
No	19	12.0	-	-
Not reported	0	0.0	-	-
Severity of abusive experiences	157	99.4	-	-
Not severe	17	10.8	-	-
Moderately severe	76	48.1	-	-
Very severe	64	40.5	-	-
Not Reported	1	0.6	-	-
Meet criteria for DSM-IV PTSD Dx	158	100.0	-	-
Yes	134	84.8	-	-
No	24	15.2	-	-
Received mental health treatment	155	98.1	-	-
Yes	97	61.4	-	-
No	58	36.7	-	-
Not Reported	3	1.9	-	-
Type of mental health treatment	-	-	-	-
Individual counseling	86	54.4	-	-
Group counseling	40	25.3	-	-
Crisis support services	36	22.8	-	-
Psychiatric services	24	15.2	-	-
Faith/religious support	24	15.2	-	-
Other	19	12.0	-	-
Childhood Betrayal Trauma	158	100.0	3.23	1.88
Yes	138	87.3	-	-
No	20	12.7	-	-
Not reported	0	0	-	-
Childhood Non-Betrayal Trauma	158	100.0	1.77	1.72
Yes	105	66.5	-	-
No	53	33.5	-	-
Not reported	0	0	-	-
Total	158	100	-	-

Measures

All measures have been used previously with samples of adult individuals who have experienced IPV. Table 2 summarizes study constructs and measures.

Table 2

Description of Study Constructs and Measures

Construct	Measure	# Items	*Cronbach's Alpha*	Variable Type
IPV Experiences	Abusive Behaviors Inventory (ABI)	30	0.96	Continuous
Childhood Betrayal Trauma	Brief Betrayal Trauma Survey (BBTS)	6	0.63	Continuous
Overall Trauma Appraisals	Trauma Appraisal Questionnaire (TAQ)	54	0.97	Continuous
Betrayal	Betrayal Subscale (TAQ)	7	0.78	Continuous
Self-Blame	Self-Blame Subscale (TAQ)	10	0.91	Continuous
Fear	Fear Subscale (TAQ)	11	0.93	Continuous
Alienation	Alienation Subscale (TAQ)	10	0.90	Continuous
Anger	Anger Subscale (TAQ)	9	0.89	Continuous
Shame	Shame Subscale (TAQ)	7	0.89	Continuous
Trauma-Related Mental Health	Trauma Symptom Checklist – 40 (TSC-40)	40	0.96	Continuous

(*Table 2 continued*).

Construct	Measure	# Items	*Cronbach's Alpha*	Variable Type
Physical Health	Items from ACE Study's Health Questionnaire	15	0.52	Continuous
Vocational Self-Efficacy	Vocational Skills Self-Efficacy Scale (VSSE)	14	0.96	Continuous

Demographic Survey

An original demographic survey was created to assess participants' age, race/ethnicity, educational status, employment status, disability status, relationship status, IPV disclosure, mental health treatment received, number of relationships in which they experienced IPV, and time elapsed since last IPV experience.

Experiences of Childhood Trauma

The Brief Betrayal Trauma Survey (Goldberg & Freyd, 2006) is a 12-item, self-report inventory designed to measure the frequency of trauma experienced prior to age 18 years. For the purposes of the present study, Dr. Freyd, selected six of the 12 items to form a more concise version. Three of the six selected items pertain to traumatic experiences that are high in betrayal (i.e., "You were deliberately attacked so severely as to result in marks, bruises, blood, broken bones, or broken teeth by someone with whom you were very close"), and three pertain to traumatic experiences low in betrayal (i.e., "You were deliberately attacked so severely as to result in marks, bruises, blood, broken bones, or broken teeth by someone with whom you were not close"). A score for overall childhood trauma was calculated by summing overall scores, and scores range from 0-12. Scores for the high betrayal trauma subscale range from 0-6, with higher scores reflecting

a higher incidence of high betrayal trauma. Scores for the low betrayal trauma subscale also range from 0-6, with higher scores reflecting a higher incidence of low betrayal trauma. The high betrayal trauma subscale was used in analyses in order to capture how interpersonal trauma high in betrayal impacted the relationships between women's experiences of IPV, their trauma appraisals, and trauma-related mental health outcomes. Betrayal Trauma Theory (Freyd, 1996) posits that traumas perpetrated by close, trusted others, such as abuse of a child by a parent and IPV, are cognitively processed uniquely. An aim of this research was to capture how relational trauma, or betrayal trauma, in childhood would impact the relationships between IPV, trauma appraisals, and mental health outcomes in adulthood. For this reason, the low betrayal trauma subscale was not used, and the high betrayal trauma subscale (referred to as childhood betrayal trauma throughout this dissertation) was. Table 1 provides means and standard deviations for the BBTS and its subscales.

Intimate Partner Violence Experiences

The Abusive Behaviors Inventory (ABI; Shepard & Campbell, 1992) is a 30-item, self-report inventory designed to measure the frequency of physical, sexual, psychological, and economic abuse a respondent has experienced from a former or current intimate partner. The ABI was used to measure IPV experiences that participants had experienced since age 18 years. Sample items include, "Prevented you from having money for your own use," "Pressured you to have sex in a way you didn't like or want," and "Slapped, hit, or punched you." Using a Likert-type scale ranging from 1 (*never*) to 5 (*very frequently*), participants rate how often each abusive behavior occurred. For the present study, participants were instructed to make their responses based on the

frequency of tactics they experienced from intimate partners during different abusive events. An overall ABI score was calculated by summing all items. Scores may range from 0-120, with higher scores indicating a higher frequency of abuse experienced. Reliability estimates of .70 to .92 have been calculated for the ABI with adult populations who have experienced IPV (Shepard & Campbell, 1992).

Trauma Appraisals

The Trauma Appraisals Questionnaire (TAQ; DePrince et al., 2010) is a 54-item, self-report questionnaire designed to assess which post-trauma appraisal categories respondents make for a particular traumatic event or set of events. The TAQ comprises six subscales that measure appraisals of betrayal (7 items), self-blame (10 items), fear (11 items), alienation (10 items), anger (9 items), and shame (7 items). Sample items include, "If the person really cared about me, the person would not have done what they did" (betrayal), "I deserved what happened to me" (self-blame), "I didn't think I'd survive" (fear), "I couldn't get close to people" (alienation), "I was always ready to attack" (anger), and "It's as if my insides were dirty" (shame). Using a Likert-scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*), participants rate the extent to which they agree with each appraisal statement. Possible score ranges for the overall score are 54-270. Internal consistency alphas for the TAQ have been calculated with different samples of trauma survivors and range from .86 to .94 (DePrince et al., 2011). Excellent test-retest reliability scores have been calculated for each appraisal subscale: betrayal = .88, self-blame = .82, fear = .73, alienation = .85, anger = .82, and shame = .87 (DePrince et al., 2011).

Trauma-Related Mental Health

The Trauma Symptom Checklist (TSC-40; Elliot & Briere, 1992) is a 40-item self-report measure that assesses trauma symptoms experienced within the last two months. The TSC-40 consists of six subscales that measure symptoms of dissociation (6-items), anxiety (9-items), depression (9-items), sexual problems (8-items), sleep disturbance (6-items), and a sexual abuse trauma index (7-items), as well as a total trauma symptom score. Alphas typically range from .66 to .77 for subscales, and from .89 to .91 for the total score (Elliot & Briere, 1992). Using a Likert-scale ranging from 0 (*never*) to 3 (*often*) participants rate the extent to which they have experienced each symptom. Total trauma symptom scores are calculated by adding responses and may range from 0 to 120, with higher scores reflecting more severe trauma symptoms. Scores for subscales are calculated by adding the responses that pertain to the particular subscale.

PTSD

The PTSD Checklist, Civilian Version (PCL-C; Blanchard, Jones-Alexander, Buckley, & Forneris, 1996) is a 17-item self-report measure that assesses PTSD symptoms. For the present study, Norwood and Murphy's (2012) adapted version of the PCL-C was used. Norwood and Murphy (2012) made modifications to the PCL-C to increase its consistency with DSM-IV-TR diagnostic criteria for PTSD and to make it more appropriate for women who have experienced IPV. First, rather than asking participants to indicate the level of distress for each symptom, they are asked how frequently they experienced the symptom in the last month, using the response options of "never," "occasionally," and "frequently." Second, rather than referring to a "stressful

experience" as the PCL-C does, the adapted measure refers to "the abuse you experienced from your partner" to focus on symptoms associated with the relationship abuse. Finally, the wording of several items was simplified or adapted by Norwood and Murphy (2012) to enhance clarity. For example, the PCL-C item, "Repeated, disturbing memories, thoughts, or images of a stressful experiences," was reworded to "Remembering the abuse even when you didn't want to" in order to simplify its meaning and focus. Similarly, the item "Feeling as if your future somehow will be cut short" was reworded to "Losing your hopes or dreams or feeling that you don't have a future" to prevent possible misinterpretation, specifically the prospect of being murdered by a former partner. The adapted PCL-C is scored continuously as the number of items (out of 17) endorsed. For rate of diagnosis in the sample, the items of the PCL-C can be scored as "present" or "not present" according to DSM-IV-TR diagnostic criteria (i.e., items 1-5 correspond to criteria B, items 6-12 correspond to criteria C, and items 13-17 correspond to criteria D). Norwood and Murphy (2012) calculated a reliability estimate of .79 for the version of the PCL-C that they adapted for IPV survivors.

Physical Health Outcomes

The female version of the Health Appraisal Questionnaire from the Adverse Childhood Experiences (ACE) study (Felitti & Anda, 1997) was modified by the principal investigator for the present study to form a 15-item self-report measure for current physical health symptoms. The adapted measure assesses for physical health symptoms that have empirically been shown to be relevant to IPV survivors, including headaches, heart attack, blood pressure, smoking, drug and alcohol abuse, irritable bowel syndrome, broken bones, pain, arthritis, diabetes, asthma, stroke, general health, and

stress. The Health Appraisal Questionnaire has previously been used with trauma survivors, and measures health outcomes that have consistently been shown to be related to IPV (Black et al., 2011; Campbell, 2002). Most items on the scale require "yes" or "no" responses, with "yes" responses being scored as 1 and "no" responses being scored as 0. Two items require a number rating using a Likert-type scale. Participants are asked to rate their general health from 1-4, with 1 being "excellent" and 4 being "poor." Participants are also asked to rate their stress level from 1-3, with 1 being "low" and 3 being "high." An overall health score is calculated by summing the scores on each item and taking the average. Possible scores may range from 4-18 with higher scores reflecting more severe health problems. The ACE Physical Health measure initially had a reliability coefficient of $\alpha = 0.06$. This reliability coefficient was recalculated after the removal of a problematic item, and though there was a significant increase ($\alpha = 0.52$), the reliability coefficient was still poor.

Vocational Skills Self-Efficacy

The Vocational Skills Self-Efficacy-Revised scale (VSSE-R; McWhirter & Chronister, 2003) is a 31-item self-report measure that assesses participants' confidence in accomplishing vocational tasks. For the present study the scale was adapted to include only 14 items, with items that were particularly similar to one another being removed. This was done out of respect for participants' time. All items begin with the phrase, "How confident are you in your ability to…" Sample items include, "Identify the kind of support you need in a job environment," "decide what you value most in an occupation," and "Make a plan of your goals for the next 5 years." Participants indicate their degree of confidence on a 10-point Likert-type scale ranging from 1 (*no confidence at all*) to 10

(*complete confidence*). The measure is scored by taking an average of the items. Total scores range from 1 to 10, with higher scores indicating greater vocational skills self-efficacy. With a sample of women who have experienced IPV, the internal consistency alpha was calculated as .99 (Chronister & McWhirter, 2004).

Measurement Reliability with Current Sample

Internal consistency reliability with this study sample was calculated for each study variable. All study measures, except for the ACE Physical Health measure, had acceptable-excellent internal consistency, with reliability coefficients that ranged from 0.63 to 0.97 (See Table 2). The ACE Physical Health measure initially had a reliability coefficient of $\alpha = 0.06$. Because the reliability coefficient was so low, the measure was examined for problematic, individual items. Item 12 from the measure, which asked "In the past year, how many hospital visits have you made?" was determined to be problematic. First, data screening revealed that 44 participants had missing data for this item due to an error in the online survey in which women were only presented with a "yes/no" response option as opposed to being able to write in their number of hospital visits. Anecdotally, women expressed confusion about this item during in-person and over-the-phone meetings, as they were not sure what counted as a hospital visit. Some women counted counseling, physical therapy, massage, and chiropractor appointments, while others expressed they did not consider the place where they received health services a "hospital." Upon further consideration it was determined that the item did not clearly reflect the state of a woman's health, because frequent hospital visits may be a sign of receiving preventive care and/or being proactive about treating health concerns, or may indicate that health concerns are so prevalent and/or severe that they require frequent

treatment. Participant scores for this item ranged from 0-120, significantly impacting the range of overall scores for the measure. The item was removed, and the new reliability coefficient was $\alpha = 0.52$. Though there was a drastic increase in the internal consistency of the ACE Physical Health measure, the reliability coefficient continued to reflect poor internal consistency and was not in an acceptable range.

Procedures

Participant Recruitment

All recruitment and participation was in accordance with the University of Oregon Institutional Review Board guidelines for research involving human subjects. Participants were recruited from organizations that provide mental health, medical, educational, vocational, and social services to community members (i.e., Volunteers in Medicine, Lane Community College's Counseling Center and Women's Center, Center for Community Counseling, the HEDCO Clinic at the University of Oregon, the Trauma Healing Project, as well as Womenspace, which serves intimate partner violence survivors only). At these participating community organizations, study flyers were posted and distributed to staff, who in turn distributed them to clients. Staff and clients of these agencies made copies of fliers and distributed them to other community agencies, and as a result participants reported having received fliers from care providers at community organizations that were not initially targeted (i.e, Looking Glass Youth and Family Services, Willamette Family Drug Treatment Center, Options counseling services). Some study participants also passed along study flyers and information to friends and family who were eligible to participate. Participants were also recruited through advertisements on Craigslist.org. Study flyers and advertisements instructed potential participants to call

or email the principal investigator to do a brief screening, get more study information, and set up a time and method for participation.

Survey Administration

Surveys generally took approximately 30 minutes to complete in-person or online, and approximately 45-60 minutes on the phone, though some participants finished more quickly/slowly than others. All participants made contact with the principal investigator (either in-person, by phone, or through email) prior to participation. There were three women who were screened out of study participation at this point. Two of the women were monolingual Spanish-speakers and unable to complete study measures in English, and a third woman had active psychotic symptoms that prevented her from being able to provide informed consent. During this initial contact, eligible participants were offered the choice of completing the survey using one of the following three methods:

(1) In-Person Meeting with Principal Investigator: Participant and principal investigator arranged to meet either at the participating community agency or in a private room at the University of Oregon. During this in-person meeting the principal investigator reviewed the study purpose, obtained informed consent, and provided instructions for completing the study surveys. Upon completion of the survey participants received $40 cash compensation. Participants were offered the opportunity to debrief with the principal investigator if they chose.

(2) Online: The principal investigator emailed a link and password for the online survey to the participant. During the initial contact with the principal investigator, participants were instructed to read through the study purpose and provide informed consent online, complete the survey online, and provide mailing information to receive

the $40 cash compensation. These instructions were repeated online. At the end of the survey, participants entered their mailing information in a separate survey that was not attached to their responses, and the principal investigator mailed them $40 cash compensation. At the end of the survey participants were also instructed to contact the research team if they had any questions, concerns, or wanted to talk about their experience taking the survey, and again were provided with contact information.

(3) Phone: The principal investigator and participant scheduled a time during the initial contact for the principal investigator to call the participant and conduct the survey. Participants were instructed that they should be in a quiet, private place when they participated. During the phone call, the principal investigator reviewed the study purpose, obtained verbal informed consent, and read each question and recorded the participant's verbal response. At the end of the survey, the principal investigator recorded the study participant's mailing information, and sent her the $40 cash compensation. This information was stored separately from the participant's survey. Participants were provided the opportunity to debrief their study participation experiences.

Participant Care and Debriefing

All participants were provided with the opportunity to debrief with a member of the research team, and received a list of community referrals (including counseling services and crisis lines) for further support regardless of which type of survey administration they chose. Participants who completed the survey online received a printable page of community resources, as well as research team contact information and an invitation to contact a research team member to debrief after completing or exiting the survey. Participants for whom the survey was administered by the principal investigator

could debrief in person upon completion of the survey, and received a list of community referrals for further support.

CHAPTER IV

RESULTS

Data Screening and Missing Data

A total of 158 participants completed study surveys. SPSS 22.0 was used to analyze the data. Data were screened for missing data and outliers. Of the total sample, four women did not complete the ABI measure of IPV experiences. These four cases were excluded from all mediation analyses, but were included in separate regression analyses that examined which specific trauma appraisals predicted outcome variables. All 158 participants completed the other study measures. On the physical health measure, there were missing data for 44 participants on item 12, which asks, "In the past year, how many doctor visits have you made?" This missing data is likely due to an initial error in the online survey where women were only provided a "yes/no" response option to the question. Unfortunately, this error was only identified and corrected several weeks into data collection. Anecdotally, women who completed the survey in-person or over-the-phone also reported having difficulty understanding what constituted a doctor's visit. Provided the difficulty associated with answering this item for many participants and the amount of missing data, item 12 was removed from the physical health measure prior to conducting study analyses. Table 3 shows the percentage of missing data per variable after accounting for the four women who did not complete the IPV measure and removing item 12 from the physical health measure. Less than 1% of the data were missing for each variable. Because the percentage of missing data was low for each variable, no data imputations were done. Inspection of frequency distributions, histograms, and scatterplots revealed two data outliers for trauma-related mental health

outcomes and physical health outcomes. The presence of the outliers did not significantly skew the respective variables. Each of the outliers was determined to be a valid report and not mistakenly entered into the data set; therefore the two outliers were included in all analyses.

Table 3

Percentage of Missing Data per Variable

Variable	*n*	Missing data (%)
Childhood Betrayal Trauma	158	0.42
IPV	154	0.67
Overall Trauma Appraisals	158	0.33
Trauma-Related Mental Health	158	0.38
Physical Health	158	0.25
Vocational Self-Efficacy	158	0.45

The data were then examined to assure that statistical test assumptions of normality, linearity, and homoscedasticity were met. The normal distribution of criterion variables were determined by: (a) the roughly normal distribution of errors observed in the P-P plots, (b) the normal curves for each variable observed in the histograms, and (c) the observed skew values for each variable. Examination of scatterplots showed no significant violation of linearity. The homoscedasticity assumption was not violated, as determined by observing: (a) an equal spread of errors above and below the regression line, (b) the model residual scatterplots, (c) the values for the Durbin Watson test, which fell between 1.5 and 2.5, and (d) the values for Cook's Distance of each variable, which

were less than 1, signifying no severe or influential outliers. In sum, all statistical assumptions were satisfied.

Descriptive Statistics

Descriptive statistics for each study variable are provided in Table 4. Data ranges were checked for each variable to ensure that all data were within the prescribed ranges.

Table 4

Descriptive Statistics for Continuous Study Variables

	n	*M*	*SD*	Score Range
Childhood Betrayal Trauma	158	3.22	1.88	0-6
IPV	154	52.09	26.61	0-120
Overall Trauma Appraisals	158	163.61	43.33	58-256
Betrayal	158	25.21	5.82	9-35
Self-Blame	158	26.45	9.91	10-50
Fear	158	31.29	10.94	11-54
Alienation	158	34.62	9.49	10-50
Anger	158	23.44	8.62	9-45
Shame	158	22.61	7.24	7-35
Trauma-Related Mental Health	158	40.09	22.61	0-109
Physical Health	158	10.80	2.67	4-18
Vocational Skills Self-Efficacy	158	6.11	2.12	1.57-10

Note. Childhood Betrayal Trauma = Brief Betrayal Trauma Survey (BBTS); IPV = Abusive Behaviors Inventory (ABI); Overall Trauma Appraisals = Trauma Appraisal Questionnaire (TAQ); Betrayal = TAQ; Self-Blame = TAQ; Fear = TAQ; Alienation = TAQ; Anger = TAQ; Shame = TAQ; Trauma-Related Mental Health = Trauma Symptom Checklist-40 (TSC-40); Physical Health = Items from the ACE Study Health Questionnaire; Vocational Self-Efficacy = Vocational Skills Self-Efficacy Scale (VSSE).

Between-Group Differences

Administration Methods

A between-subjects, one-way analysis of variance was performed to determine if there were significant differences among survey administration methods (in-person, over-the-phone, and online) for scores on IPV experiences (measured using the ABI), overall trauma appraisals (measured using the TAQ), trauma-related mental health outcomes (measured using the TSC-40), physical health outcomes (measured using items from the ACE study), and vocational self-efficacy (measured using the VSSE). There were significant differences between administration methods for IPV scores, $F(2,151) = 64.36$, $p < .01$, and trauma-related mental health scores, $F(2,155) = 43.83$, $p < .01$. Follow up pairwise analyses showed that the in-person ($M = 79.38$, $SD = 20.31$) and over-the-phone ($M = 72.09$, $SD = 17.52$) participants had significantly higher scores on IPV experiences than online participants ($M = 38.96$, $SD = 19.92$, $p < .01$), and that the in-person ($M = 53.34$, $SD = 17.41$) and over-the-phone ($M = 65.41$, $SD = 25.25$) participants also scored significantly higher on trauma-related mental health outcomes than online participants ($M = 30.65$, $SD = 16.63$, $p < .01$).

IPV Severity

Another between-subjects, one-way analysis of variance was performed to determine if there were significant between group differences among women's ratings of IPV severity (not severe, moderately severe, and very severe) for scores on IPV experiences, overall trauma appraisals, trauma-related mental health outcomes, physical health outcomes, and vocational self-efficacy. There were significant differences between severity groups for IPV scores, $F(2,151) = 44.39$, $p < .01$, overall trauma appraisal scores,

*F(*2,155) = 22.41, $p < .01$, trauma-related mental health scores, *F(*2,155) = 11.49, $p < .01$, and physical health scores, *F(*2,155) = 64.36, $p < .05$. Follow up pairwise analyses showed that participants who rated their abuse experiences as not severe scored significantly lower on IPV experiences (*M* = 22.00, *SD* = 11.60) than those who rated their abuse experiences as moderately severe (*M* = 43.85, *SD* = 21.41, $p < .01$), and those who rated their abuse experiences as very severe (*M* = 69.97, *SD* = 23.03, $p < .01$). Participants who rated their abuse experiences as moderately severe also scored significantly lower on IPV experiences than those who rated their abuse experiences as very severe ($p < .01$). Participants who rated their abuse experiences as very severe scored significantly higher on overall trauma appraisals (*M* = 181.58, *SD* = 36.92) than participants who rated their abuse experiences as either not severe (*M* = 137.71, *SD* = 37.32, $p < .01$) or moderately severe (*M* = 154.66, *SD* = 44.37, $p < .01$). Participants who rated their abuse experiences as very severe scored significantly higher on trauma-related mental health outcomes (*M* = 52.63, *SD* = 21.17) than participants who rated their abuse experiences as not severe (*M* = 25.35, *SD* = 9.89, $p < .01$) and moderately severe (*M* = 32.59, *SD* = 20.69, $p < .01$). Participants who rated their abuse experiences as very severe scored significantly higher on physical health outcomes (*M* = 11.55, *SD* = 3.03) than did participants who rated their abuse experiences as not severe (*M* = 9.94, *SD* = 2.05, $p < .05$). In sum, there were significant between group differences on IPV severity ratings for IPV, trauma-related mental health, overall trauma appraisals, and physical health variables. More severe IPV ratings were associated with higher scores on each of these variables.

Mental Health Treatment Received

Another between-subjects, one-way analysis of variance was performed to determine if there were significant between group differences for whether women did or did not receive mental health treatment related to their experiences of abuse, and their scores on IPV experiences, overall trauma appraisals, trauma-related mental health outcomes, physical health outcomes, and vocational self-efficacy. There were significant differences between mental health treatment groups (received or not received) for IPV scores, $F(149) = 7.16$, $p < .01$. Women who reported having received mental health treatment had a significantly higher mean score on the ABI ($M = 56.31$, $SD = 26.81$, $p < .01$) than women who reported that they did not receive mental health treatment ($M = 44.53$, $SD = 24.62$, $p < .01$). There were no between group differences for mental health treatment for any other variables.

Employment Status

Another between-subjects, one-way analysis of variance was performed to determine if there were significant differences between women who were employed and those who were not employed for their scores on IPV experiences, overall trauma appraisals, trauma-related mental health outcomes, physical health outcomes, and vocational self-efficacy. There were significant differences between employment status groups (employed or unemployed) for IPV scores, $F(151) = 11.13$, $p < .01$, trauma-related mental health outcomes, $F(154) = 12.88$, $p < .001$, and physical health, $F(154) = 6.21$, $p < .05$. Women who reported being unemployed at the time of study participation had a significantly higher mean score for IPV ($M = 57.05$, $SD = 27.11$) than women who reported that they were employed ($M = 42.42$, $SD = 23.17$, $p < .001$). Women who

reported being unemployed at the time of study participation had a significantly higher mean score for trauma related-mental health outcomes (M = 44.52, SD = 22.81) than women who reported that they were employed (M = 31.35, SD = 19.75, $p < .001$). Women who reported being unemployed at the time of study participation had a significantly higher mean score for physical health problems (M = 11.20, SD = 2.64) than women who reported that they were employed (M = 10.09, SD = 2.62, $p < .05$). There were no between group differences for employment status for any other variables.

Disability

Another between-subjects, one-way analysis of variance was performed to determine if there were significant differences between women who identified as having a disability and those who did not for their scores on IPV experiences, overall trauma appraisals, trauma-related mental health outcomes, physical health outcomes, and vocational self-efficacy. There were significant differences between disability status groups (disability or no disability) for IPV scores, $F(151) = 12.38$, $p < .001$, trauma-related mental health outcomes, $F(155) = 33.00$, $p < .001$, overall trauma appraisals, $F(155) = 9.23$, $p < .01$, physical health, $F(155) = 11.86$, $p < .01$, and vocational self-efficacy, $F(155) = 3.98$, $p < .05$. Women who identified as having a disability at the time of study participation had a significantly higher mean score for IPV (M = 61.11, SD = 23.30) than women who did not (M = 46.24, SD = 27.15, $p < .001$). Women who identified as having a disability had a significantly higher mean score for overall trauma appraisals (M = 176.34, SD = 44.34) than women who did not (M = 155.62, SD = 40.30, $p < .01$). Women who identified as having a disability had a significantly higher mean score for trauma related-mental health outcomes (M = 51.53, SD = 22.07) than women

who did not (M = 32.26, SD = 19.63, $p < .001$). Women who identified as having a disability had a significantly higher mean score for physical health problems (M = 11.67, SD = 2.64) than women who did not (M = 10.22, SD = 2.55, $p < .01$). Women who identified as having a disability also had a significantly lower mean score for vocational self-efficacy (M = 5.72, SD = 2.16) than women who did not (M = 6.40, SD = 2.06, $p < .05$).

Sample Characteristics

The current study involved the use of a sample of women who have not been represented in the extant trauma appraisal literature, and who have had diverse experiences of IPV. Surprisingly, 134 women participants, or about 85%, met criteria for PTSD according to the version of the PCL-C that researchers adapted for IPV survivors (Norwood & Murphy, 2012). While researchers have found prevalence rates ranging from 33% to 84% of IPV survivors being eligible for a PTSD diagnosis (Astin et al., 1993; Kemp et al., 1991), the percentage of participants eligible for a PTSD diagnosis in the present sample is on the extreme high end of that range. The precedent for scoring the adapted version of the PCL-C only required that the items from each diagnostic category be scored as present or not present for the survivor (Norwood & Murphy, 2012), which may have led to an over diagnosis of PTSD in this sample. The women's scores on the TSC-40 and its anxiety, depression, and dissociation subscales were normally distributed and did not reflect a similar trend. It is also of note that in the present sample 87.3% of participants (138 women) reported having at least one experience of childhood betrayal trauma (physical, sexual, or psychological abuse by a close, trusted other, such as a

parent or caregiver) prior to age 18. The rate of childhood betrayal trauma was quite high in this sample, and was significantly correlated with every study variable.

There were some unique characteristics in the present sample relating to education. First, the present sample was mostly consistent with Oregon demographics in terms of participants' education. The U.S. Census Bureau (2011) found that 90.1% of Oregon women over the age of 25 had successfully achieved a high school diploma or higher education, with 18.6% earning a bachelors degree and 10.4% earning a graduate degree. In the present study, 83.5% of women had graduated from high school or earned a higher degree, about 71% had gone on to earn some form of post-secondary education, 19.6% had earned a bachelors degree, and 4.4% had earned a graduate degree. It is somewhat surprising that the present sample's educational achievement would be consistent with the general population of women in Oregon because previous research has shown that women's educational trajectories are negatively impacted by IPV. Furthermore, about 10% of the sample was under the age of 25, making the percentage of women who had earned bachelors and graduate degrees particularly notable.

Other unique characteristics of the present sample had to do with employment status and disability rates. Data showed that 64.6% of the participants reported that they were unemployed at the time of study participation. Not only is this unemployment rate surprisingly high, but there were significant between group differences for employment status (employed v. unemployed) for scores on measures of IPV and trauma-related mental health, with women who were unemployed scoring significantly higher on these measures than women who were employed. There was also a surprisingly high percentage of women in the present sample who identified as having a disability (40.5%).

There were significant between group differences for disability (having a disability v. not having a disability) for scores on measures of IPV, trauma appraisals, and trauma-related mental health, with women who identified as having a disability scoring significantly higher on these measures than women who did not.

Correlational Analyses

Results from a series of bivariate correlations showed no multicollinearity among study variables (i.e., each correlation combination was less than 0.80), with the exception of the overall trauma appraisals measure and some of the trauma appraisal subscales (self-blame, fear, alienation, and shame) (see Table 5). Though there was some multicollinearity between the overall trauma appraisal measure and trauma appraisal subscales for self-blame, fear, alienation, and shame, there was no multicollinearity among trauma appraisal subscales. Each trauma appraisal subscale measured a unique construct. Correlations were in the expected directions.

There were significant, positive correlations between the independent variable of IPV and the dependent variable of trauma-related mental health. There were not significant correlations between IPV and the dependent variables of physical health and vocational self-efficacy. There were significant and positive correlations between IPV and the mediating variable of overall trauma appraisals, as well as between IPV and each trauma appraisal subscale, with the exception of anger. There were significant, positive correlations between overall trauma appraisals and all trauma appraisal subscales with the dependent variables of trauma-related mental health and physical health. There were significant, inverse correlations for overall trauma appraisals, as well as each trauma appraisal subscale, and vocational self-efficacy. Childhood betrayal trauma was

significantly and positively correlated with IPV, trauma-related mental health, overall trauma appraisals, and each trauma appraisal subscale.

Regression Analyses

Research Question 1

A stepwise regression analysis, consistent with Baron and Kenny's (1986) causal-steps approach, was performed to test whether overall trauma appraisals mediated the relationship between women's experiences of IPV and trauma-related mental health outcomes (see Table 6). The initial variable was women's experiences of IPV (measured using the ABI), the causal variable was trauma-related mental health outcomes (measured using the TSC-40), and the mediating variable was overall trauma appraisals (measured using the TAQ). Refer to Figure 4 for the path diagram that corresponds to this mediation analysis.

The first regression (Model 1; see Table 6) showed that the total, direct effect of IPV on trauma-related mental health was significant, $c = 0.31$, $t(152) = 4.08$, $p < .001$. The second regression showed that IPV significantly predicted the hypothesized mediating variable, overall trauma appraisals, $a = 0.38$, $t(152) = 5.09$, $p < .001$. The first step of the stepwise regression (Model 2; see Table 6) showed that when controlling for IPV, the hypothesized mediating variable of overall trauma appraisals significantly predicted trauma-related mental health outcomes, $b = 0.76$, $t(152) = 13.50$, $p < .001$. The second step of the stepwise regression showed that the estimated direct effect of IPV on trauma-related mental health outcomes, controlling for overall trauma appraisals, was not significant, $c' = 0.02$, $t(2, 151) = 0.43$, $p = 0.67$. Trauma-related mental health outcomes were predicted very well from IPV and overall trauma appraisals variables, with adjusted

Table 5

Sample Means, Standard Deviations, and Bivariate Correlations for All Study Variables

Variables	*n*	*M*	*SD*	1	2	3	4	5	6	7	8	9	10	11	12
1. IPV	154	52.09	26.61	-	-	-	-	-	-	-	-	-	-	-	-
2. Child Betrayal Trauma	158	3.23	1.88	.31**	-	-	-	-	-	-	-	-	-	-	-
3. Overall Trauma Appraisal	158	163.61	43.33	.31**	.36**	-	-	-	-	-	-	-	-	-	-
4. Betrayal	158	25.21	5.82	.37**	.38**	.70**	-	-	-	-	-	-	-	-	-
5. Self-Blame	158	26.44	9.91	.23**	.26**	.86**	.47**	-	-	-	-	-	-	-	-
6. Fear	158	31.28	10.94	.30**	.31**	.88**	.55**	.71**	-	-	-	-	-	-	-
7. Alienation	158	34.62	9.48	.22**	.29**	.88**	.54**	.73**	.73**	-	-	-	-	-	-
8. Anger	158	23.44	8.62	.16	.28**	.74**	.48**	.55**	.53**	.59**	-	-	-	-	-
9. Shame	158	22.61	7.24	.33**	.32**	.88**	.63**	.74**	.77**	.70**	.54**	-	-	-	-
10. T-R Mental Health	158	40.09	2.61	.59**	.36**	.65**	.47**	.52**	.56**	.61**	.51**	.56**	-	-	-
11. Physical Health	158	10.81	2.67	.09	.29**	.37**	.17*	.24**	.36**	.34**	.36**	.34**	.35**	-	-
12. Vocational Self-Efficacy	158	6.11	2.12	-.07	-.24**	-.48**	-.23**	-.44**	-.42**	-.42**	-.40**	-.45**	-.39**	-.30**	-

Note. 1. IPV = Experiences of intimate partner violence (score range = 0-120); 2. Child Betrayal Trauma = Experiences of childhood betrayal trauma (score range = 0-6); 3. Overall Trauma Appraisal= Overall trauma appraisals (score range = 54-270); 4. Betrayal = Trauma appraisals of betrayal (score range = 7-35); 5. Self-Blame = Trauma appraisals of self-blame (score range = 10-50); 6. Fear = Trauma appraisals of fear (score range = 11-55); 7. Alienation = Trauma appraisals of alienation (score range = 10-50); 8. Anger = Trauma appraisals of anger (9-49); 9. Shame = Trauma appraisals of shame (score range = 7-35); 10. T-R Mental Health = Trauma-related mental health outcomes (score range = 0-120); 11. Physical Health = Physical health outcomes (score range = 4-18); 12. Vocational Skills Self-Efficacy = Vocational skills self-efficacy (score range = 1-10). *p <.05. **p <.01.

R^2 = 0.59 and $F(2,151) = 109.31$, $p < .001$. The indirect effect *ab* was 0.29. This was judged to be statistically significant using the Sobel test (1982), $z = 2.70$, $p < .01$.

Table 6

Regression Coefficients for Variables Predicting Trauma-Related Mental Health Outcomes (n=154)

	Model 1			Model 2		
Variable	*B*	*SE B*	*β*	*B*	*SE B*	*β*
IPV	0.31	0.08	4.08**	0.24	0.06	0.43
TA Overall	-	-	-	0.76	0.03	13.50**
Adjusted R^2	.09			.59		
F	16.63**			109.31**		

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

The indirect path from IPV to trauma-related mental health outcomes through overall trauma appraisals was judged to be significant by the following criteria: (1) both the *a* and *b* coefficients were statistically significant and (2) the Sobel test for the *ab* product was significant as well. The direct path from IPV to trauma-related mental health outcomes (*c'*) became statistically insignificant when controlling for overall trauma appraisals, which indicates that overall trauma appraisals fully mediated the relationship between IPV and trauma-related mental health outcomes. Figure 4 shows the relationships examined in this mediation analysis.

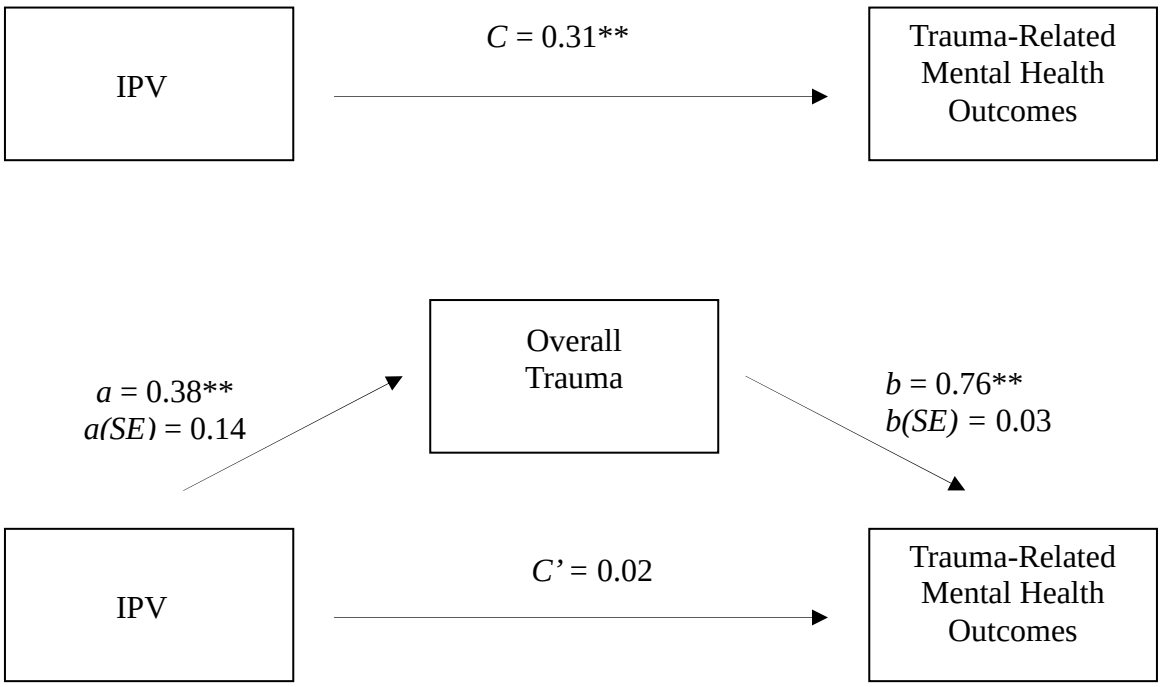


Figure 4. Mediation model for direct and indirect effects of IPV, overall trauma appraisals, and trauma-related mental health outcomes.

A multiple linear regression analysis was used to test if the trauma appraisal subscales (betrayal, self-blame, fear, alienation, anger, shame) significantly predicted participants' ratings of trauma-related mental health outcomes (see Tables 7 and 8). Regression results indicated that the trauma appraisal subscales explained 64.3% of the variance, $R^2 = 64.3$, $F(6, 151) = 45.33$, $p < .001$. It was found that the fear appraisals subscale significantly predicted trauma-related mental health outcomes, $\beta = 0.21$, $t(6, 151) = 2.42$, $p < .05$, as did alienation appraisals, $\beta = 0.33$, $t(6, 151) = 3.96$, $p < .001$, and anger appraisals, $\beta = 0.30$, $t(6, 151) = 4.75$, $p < .001$. That is, women who scored higher on appraisals of fear, alienation, and anger, also reported more negative mental health

symptoms. The following trauma appraisal subscales were not found to be significant predictors of trauma-related mental health outcomes: betrayal appraisals, β = -0.10, t(6, 151) = -1.48, p = .14, self-blame appraisals, β = 0.03, t(6, 151) = 0.36, p = .72, and shame appraisals, β = 0.14, t(6, 151) = 1.50, p = .14.

Table 7

Overall Results for Regression Model Predicting Trauma-Related Mental Health Outcomes from Trauma Appraisal Subscales

Model Summary

R	R^2	adjusted R^2
.80	.64	.63

ANOVA

Source	SS	df	MS	F	*p*
Regression	54,506.05	6	9,084.34	45.33	.000**
Residual	30,260.99	151	200.40		
Total	84,767.04	157			

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

Another aspect of this research question was to determine whether trauma appraisals mediated the relationship between IPV and trauma-related mental health outcomes when controlling for childhood betrayal trauma. A second stepwise regression analysis was performed with childhood betrayal trauma (measured using the BBTS) and IPV experiences as the initial variable, trauma-related mental health outcomes as the

Table 8

Regression Coefficients for Model Predicting Trauma-Related Mental Health Outcomes from Trauma Appraisal Subscales

Variable	*b*	*SE*	*t*	*β*	*sr*	*p*
Constant	-4.08	5.35	-0.76			0.45
Betrayal	-0.39	0.26	-1.48	-0.10	-0.12	0.14
Self-Blame	0.07	0.19	0.36	0.03	0.03	0.72
Fear	0.44	0.18	2.42	0.21	0.19	0.02*
Alienation	0.81	0.20	3.96	0.33	0.31	0.00**
Anger	0.81	0.17	4.75	0.30	0.36	0.00**
Shame	0.44	0.30	1.50	0.14	0.12	0.14

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

causal variable, and overall trauma appraisals as the mediating variable. Figure 5 shows the corresponding path diagram for this analysis.

The first regression (Model 1; see Table 9) showed that the total, direct effect of IPV on trauma-related mental health outcomes was significant, $c = 0.53$, $t(2, 151) = 7.79$, $p < .001$, as was the total, direct effect of childhood betrayal trauma, $e = 0.20$, $t(2, 151) = 2.95$, $p < .01$. The second regression showed that IPV significantly predicted the mediating variable of overall trauma appraisals, $a = 0.22$, $t(151, 2) = 2.87$, $p < .01$, as did childhood betrayal trauma, $d = 0.29$, $t(2, 151) = 3.69$, $p < .001$. The first step of the

stepwise regression (Model 2; see Table 9) showed that when controlling for IPV and childhood betrayal trauma, the mediating variable of overall trauma appraisals significantly predicted trauma-related mental health outcomes, $b = 0.49$, $t(2,151) = 8.41$, $p < .001$. The second step of the stepwise regression showed that the estimated direct effect of IPV on trauma-related mental health outcomes, controlling for childhood betrayal trauma and overall trauma appraisals, was decreased, but still significant, $c' = 0.42$, $t(3, 150) = 7.26$, $p < .001$. The estimated direct effect of childhood betrayal trauma on trauma-related mental health outcomes, controlling for IPV and overall trauma appraisals, was no longer significant, $e' = 0.06$, $t(3, 150) = 0.99$, $p = 0.32$. Trauma-related mental health outcomes were predicted very well from IPV, childhood betrayal trauma, and overall trauma appraisals variables, with adjusted $R^2 = 0.57$ and $F(3,150) = 68.61$, $p < .001$. The indirect effect *ab* was 0.11, which was judged to be statistically significant using the Sobel test (1982), $z = 1.68$, $p < .05$. The indirect effect *db* was 0.14, which was not judged to be statistically significant when accounting for the Standard Error with the Sobel test (1982), $z = 0.16$, $p = 0.44$.

The indirect path from IPV to trauma-related mental health outcomes through overall trauma appraisals was judged to be significant by the following criteria: (1) both the *a* and *b* coefficients were statistically significant and (2) the Sobel test for the *ab* product was significant as well. The direct path from IPV to trauma-related mental health outcomes (*c'*) remained statistically significant when controlling for childhood betrayal trauma and overall trauma appraisals, which indicates that overall trauma appraisals only partially mediated the relationship between IPV and trauma-related mental health outcomes when controlling for childhood betrayal trauma, and that childhood betrayal

trauma scores are responsible for some of the covariance in trauma-related mental health outcomes. Figure 5 shows the relationships examined in this mediation analysis.

Table 9

Regression Coefficients for Variables Predicting Trauma-Related Mental Health Outcomes, Controlling for Childhood Betrayal Trauma (n = 154)

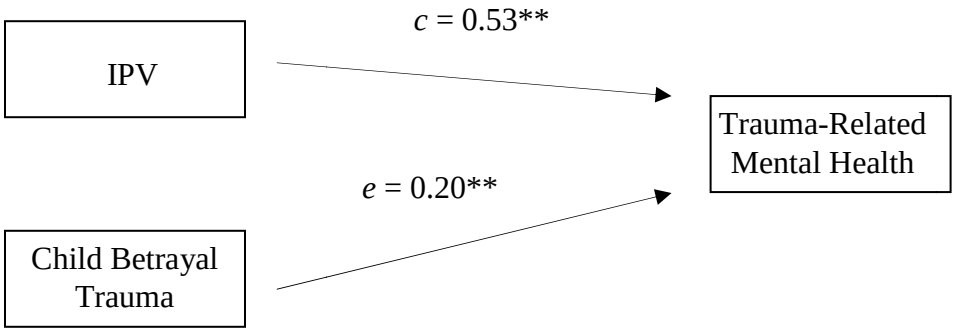
	Model 1			Model 2		
Variable	*B*	*SE B*	*β*	*B*	*SE B*	*β*
IPV	0.45	0.06	0.53**	0.35	0.05	0.42**
Child Bet. Trauma	2.40	0.82	0.20**	0.70	0.70	0.06
TA Overall	-	-	-	0.26	0.03	0.49**
Adjusted R^2	.37			.57		
F	46.17**			68.61**		

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

Research Question 2

Requirements for performing a mediation analysis with IPV as the independent variable, physical health as the causal variable, and overall trauma appraisals as the mediating variable were not met. First, the physical health measure had poor internal consistency ($\alpha = 0.52$), which suggests that it may not have been an accurate indicator of participants' physical health. Second, there was not a significant correlation between the IPV variable and the physical health variable.

MODEL 1



MODEL 2

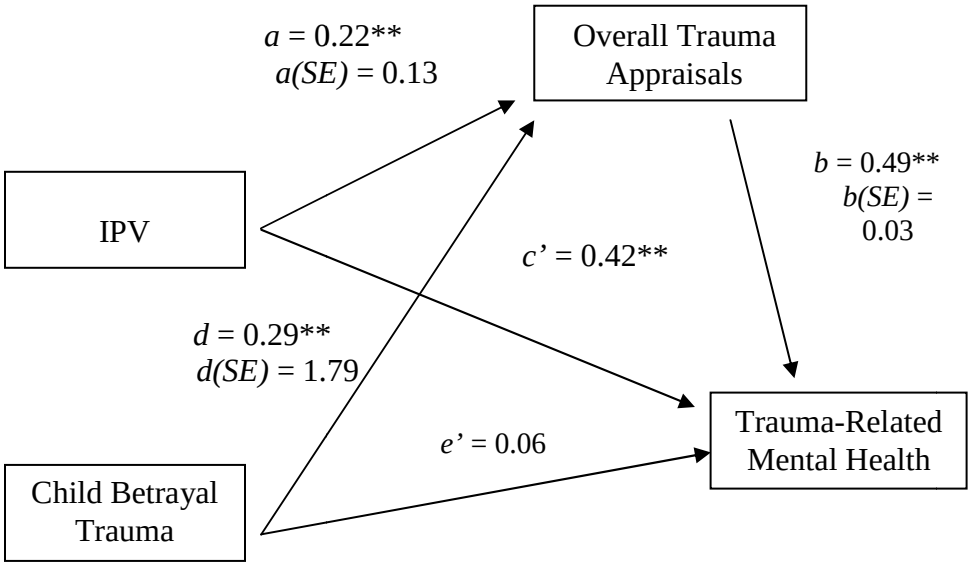


Figure 5. Mediation model for direct and indirect effects of IPV, overall trauma appraisals, and trauma-related mental health outcomes controlling for childhood betrayal trauma.

There were significant, positive correlations between overall trauma appraisals, all trauma appraisal subscales (betrayal, self-blame, fear, alienation, anger, shame), and the physical health variable. A multiple linear regression analysis was used to test if the trauma appraisal subscales significantly predicted participants' ratings of physical health (see Tables 10 and 11). The results of the regression indicated that the trauma appraisal subscales explained 20.5% of the variance, $R^2 = 0.21$, $F(6, 151) = 6.51$, $p < .001$. The anger appraisals subscale significantly predicted physical health, $\beta = 0.26$, $t(6, 151) = 2.78$, $p < .01$, and so did self-blame appraisals, $\beta = -0.24$, $t(6, 151) = -1.95$, $p = .05$. The following trauma appraisal subscales were not significant predictors of physical health: betrayal appraisals, $\beta = -0.18$, $t(6,151) = -1.81$, $p = .07$, fear appraisals, $\beta = 0.20$, $t(6, 151) = 1.57$, $p = .12$, alienation appraisals, $\beta = 0.15$, $t(6, 151) = 1.24$, $p = .22$, and shame appraisals, $\beta = 0.22$, $t(6, 151) = 1.60$, $p = .11$. These results should be interpreted with caution, however, because the physical health measure had poor internal consistency.

Research Question 3

Requirements for performing a mediation analysis with IPV as the independent variable, vocational self-efficacy as the causal variable, and overall trauma appraisals as the mediating variable were not met. There was not a significant correlation between the IPV variable and the vocational self-efficacy variable.

There were, however, significant, negative correlations between each of the trauma appraisal subscales (betrayal, self-blame, fear, alienation, anger, shame) and the vocational self-efficacy variable. A multiple linear regression analysis was used to test if

Table 10

Overall Results for Regression Model Predicting Physical Health Outcomes from Trauma Appraisal Subscales

Model Summary

R	R^2	adjusted R^2
.45	.21	.17

ANOVA

Source	SS	df	MS	F	*p*
Regression	229.83	6	38.30	6.51	.000**
Residual	889.09	151	5.89		
Total	1,118.92	157			

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

the trauma appraisal subscales significantly predicted participants' ratings of vocational self-efficacy (see Tables 12 and 13). The results of the regression indicated that the trauma appraisal subscales explained 26.5% of the variance, $R^2 = 0.27$, $F(6, 151) = 9.08$, $p < .001$. Anger appraisals significantly and inversely predicted vocational self-efficacy, $\beta = -0.19$, $t(6, 151) = -2.05$, $p < .05$, as did shame appraisals, $\beta = -0.26$, $t(6, 151) = -1.98$, $p < .05$. That is, women who reported more appraisals of anger and shame also reported lower vocational self-efficacy. The following trauma appraisal subscales were not significant predictors of vocational self-efficacy: betrayal appraisals, $\beta = 0.16$, $t(6, 151) = 1.67$, $p = .10$, self-blame appraisals, $\beta = -0.10$, $t(6, 151) = 0.86$, $p = .39$, fear appraisals, β

= -0.06, $t(6, 151) = -0.46$, $p = .65$, and alienation appraisals, $\beta = -0.10$, $t(6, 151) = -0.82$, $p = .41$.

Table 11

Regression Coefficients for Model Predicting Physical Health Outcomes from Trauma Appraisal Subscales

Variable	*b*	*SE*	*t*	*β*	*sr*	*p*
Constant	7.77	0.92	8.47			0.00
Betrayal	-0.08	0.05	-1.81	-0.18	-0.15	0.07
Self-Blame	-0.06	0.03	-1.95	-0.24	-0.16	0.05*
Fear	0.05	0.03	1.57	0.20	0.13	0.12
Alienation	0.04	0.04	1.24	0.15	0.10	0.22
Anger	0.08	0.03	2.78	0.26	0.22	0.01**
Shame	0.08	0.05	1.60	0.22	0.13	0.11

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

Table 12

Overall Results for Regression Model Predicting Vocational Self-Efficacy from Trauma Appraisal Subscales

Model Summary

R	R^2	adjusted R^2
.52	.27	.24

ANOVA

Source	SS	df	MS	F	*p*
Regression	186.78	6	31.13	9.08	.000**
Residual	517.49	151	3.43		
Total	704.27	157			

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

Table 13

Regression Coefficients for Model Predicting Vocational Self-Efficacy from Trauma Appraisal Subscales

Variable	*b*	*SE*	*t*	*β*	*sr*	*p*
Constant	9.16	0.70	13.09			0.00
Betrayal	0.06	0.03	1.67	0.16	0.14	0.10
Self-Blame	-0.02	0.03	-0.86	-0.10	-0.07	0.39
Fear	-0.01	0.03	-0.46	-0.06	-0.04	0.65
Alienation	-0.02	0.03	-0.82	-0.10	-0.07	0.41
Anger	-0.05	0.02	-2.05	-0.19	-0.17	0.04*
Shame	-0.08	0.04	-1.98	-0.26	-0.16	0.05*

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

CHAPTER V

DISCUSSION

The purpose of this dissertation study was to use a non-experimental, descriptive, correlational survey study design to explore the role of trauma appraisals in the development of mental health, physical health, and vocational outcomes for women survivors of IPV. Present study results supported the first hypothesis; trauma appraisals mediated the relationship between IPV and trauma related mental health. Furthermore, specific dimensions of trauma appraisals predicted trauma related mental health, physical health, and vocational self-efficacy. This chapter includes a thorough discussion of study results and is organized by (1) a discussion of results for each research question; (2) implications of study findings; and (3) study strengths and limitations.

Research Question 1

The first research question involved exploration of (1) whether trauma appraisals mediated the relationship between IPV and trauma-related mental health outcomes; (2) which appraisals predicted trauma-related mental health outcomes; and (3) whether trauma appraisals mediated the relationship between IPV and trauma-related mental health outcomes when controlling for the impact of childhood betrayal trauma. It was hypothesized that trauma appraisals would mediate the relationship between IPV and trauma related mental health, even when controlling for childhood betrayal trauma. No specific hypotheses were made about which specific appraisals would predict trauma related mental health due to limited extant research on which to base they hypotheses.

Results showed that overall trauma appraisals significantly and fully mediated the relationship between women's IPV experiences and their trauma-related mental health

outcomes. The specific appraisal subscales of fear, alienation, and anger significantly predicted trauma-related mental health outcomes and appraisals of betrayal, self-blame, and shame did not. When controlling for childhood betrayal trauma, however, the overall trauma appraisals variable only partially, though still significantly, mediated the relationship between women's IPV experiences and their trauma-related mental health outcomes. That is, childhood betrayal trauma accounted for some of the covariance in the indirect path between IPV, trauma appraisals, and trauma-related mental health outcomes.

These findings are consistent with the trauma appraisal literature that has shown that trauma appraisals account for mental health outcomes above and beyond characteristics of the traumatic event (Andrews, 1995; Andrews et al., 2000; DePrince et al., 2011; DePrince et al., 2010; Ehlers & Clark, 2000; Feeny et al., 2000; Martin et al., 2013). The indirect path between IPV, trauma appraisals, and trauma-related mental health outcomes was significant, and when trauma appraisals were introduced as a mediator, the relationship between IPV and trauma-related mental health was no longer significant. This research replicates previous trauma appraisal research findings (DePrince et al., 2010; DePrince et al., 2011; Martin et al., 2013), but with a sample of women who have not been examined previously. Women who have experienced IPV have been understudied in the trauma appraisal literature, and trauma appraisal research has exclusively focused on participants' appraisals of single traumatic events (even when participants had experienced multiple or ongoing traumatic events). The present study findings demonstrate that trauma appraisals are a highly relevant construct for women who have experienced multiple forms and instances of IPV. Present study findings also

highlight the importance of trauma appraisals for a range of trauma-related mental health symptoms beyond PTSD.

Present study findings also revealed unique patterns of associations between specific appraisal categories and trauma-related mental health. Results showed that appraisals of fear, alienation, and anger play a role in the development of trauma-related mental health outcomes for IPV survivors. Few researchers have examined multiple trauma appraisals simultaneously and reported on the specific relationships between appraisal categories and mental health outcomes (DePrince et al., 2010; DePrince et al., 2011; Martin, 2013). The following is a discussion of each appraisal category as it relates to trauma-related mental health measured in this study.

Betrayal

The trauma appraisal subscale for betrayal was not a significant predictor of trauma-related mental health. Researchers have found significant, inverse relationships between appraisals of betrayal and dissociation (DePrince et al., 2011). The present study did not examine specific forms of trauma-related distress, such as dissociation, but rather overall scores on a post-traumatic symptom checklist (TSC-40) that included depression and anxiety. There is no research evidence to suggest that betrayal appraisals predict depression and anxiety, and it is possible that including several types of trauma-related symptoms in the trauma-related mental health measure diluted the potential predictive value of the betrayal appraisals. Betrayal appraisals and trauma-related mental health outcomes were highly correlated ($r = 0.47$, $p < .01$), however, suggesting that there was a relationship between the two variables. Only one previous study (DePrince et al., 2011) has specifically examined the relationship between the TAQ betrayal appraisal subscale

and mental health outcomes, and researchers found an inverse relationship for betrayal and dissociation. Further research is needed to determine the relationship of the betrayal appraisal subscale to mental health outcomes, and to investigate how other variables may impact this relationship.

Identifying the betrayal inherent in IPV is a complicated process for women, with complicated effects on their lives. Though research has shown that awareness of betrayal has an inverse relationship with dissociation (Freyd, 1996; Freyd et al., 2001; Freyd et al., 2007; DePrince et al., 2011), correlational findings from the present study showed that betrayal appraisals were associated with broad negative mental health outcomes as well as other negative appraisals. Present study results may be consistent with Betrayal Trauma Theory in that the results potentially highlight some of the risks associated with having an awareness of betrayal (i.e., depression, anxiety), and illuminate the difficulty that women must face as they develop this awareness. Betrayal Trauma Theory posits that maintaining an unawareness of betrayal can be self-protective and protective of the relationship with the abuser. It is important to note that there may be serious discrepancies between objective, betrayal elements of a traumatic event, and the extent to which a woman appraises a traumatic event as involving betrayal, because of her need to protect herself and the relationship. Consistent with this aspect of Betrayal Trauma Theory, betrayal appraisals were significantly and positively correlated with trauma-related mental health outcomes. As women were able to make stronger appraisals of betrayal, they experienced more severe negative mental health outcomes.

Betrayal appraisals were significantly and positively correlated with all study variables, including IPV, all other appraisals, and all outcome variables. This finding

highlights how one type of appraisal does not preclude another. Appraisals of self-blame and betrayal were correlated with one another, showing that even as women were able to identify that they had been betrayed by the abuser, they continued to experience self-blame for the abuse, as well as other negative appraisals. These results demonstrate how multiple, distinct appraisals function at once, and emphasize the importance of engaging in research and practice that addresses different kinds of appraisals and the relationships among them.

Self-blame

Though appraisals of self-blame were significantly and positively correlated with trauma-related mental health outcomes, they did not predict trauma-related mental health outcomes in the present study. This finding is inconsistent with previous research that has found links between self-blame and depression (DePrince et al., 2011; Harper & Arias, 2004; Kaysen, Scher, Mastnak, & Resick, 2005). In DePrince and colleagues (2011) study with women IPV survivors, self-blame appraisals were also linked with dissociation. As was mentioned in the discussion of betrayal appraisals, specific subscales for the TSC-40 were not used in the present study, and depression and dissociation were not individually examined. Using a more general measure of trauma-related mental health rather than specific outcomes may have prevented the identification of significant relationships between specific appraisal subscales and trauma-related mental health outcomes. Previous research has also shown high rates of self-blame for sexual assault survivors (Breitenbecher, 2006). The present study, though inclusive of sexual IPV, did not specifically look at how women who had experienced different forms of IPV (i.e., physical, sexual, psychological) differed from one another in terms of

appraisals or outcomes. This was because women are likely to have experienced multiple forms of IPV. However, it is possible that women who experienced sexual IPV may differ from other IPV survivors in terms of how they make appraisals and the kinds of outcomes they experience. Past theoretical work has posited that self-blame may serve to help trauma survivors regain some sense of power or control; as imagining that there was something they could have done to prevent the trauma may be more tolerable than facing the reality that they were truly helpless (Herman, 1992). Self-blame has consistently been shown to be relevant to women's experiences of IPV and outcomes (DePrince et al., 2011; Harper & Arias, 2004; Kaysen et al., 2005; Martin et al., 2013), and the present findings warrant further investigation.

It is also important to consider the role of self-appraisals for the present sample. Ehlers and Clark (2000) identify that traumatic events can change the way an individual makes appraisals about herself and the world around her. Though the TAQ does not necessarily differentiate between self-appraisals and appraisals of the external world, self-blame and shame are both self-focused appraisals, and neither was found to be predictive of trauma-related mental health outcomes in the present study. An interesting area for future research would be to examine whether there are differences in the roles of appraisals about the self and appraisals about the external world in the development of specific outcomes.

Fear

Fear appraisals were a significant predictor of trauma-related mental health in the present study. This finding is consistent with the bulk of the trauma appraisal and PTSD literature (e.g., Brewin et al., 2000; Ehlers & Clark, 2000; Pico-Alfonso et al., 2006), and

expands DePrince and colleagues (2011) finding about the relationship between fear appraisals and PTSD for women IPV survivors. In DePrince and colleagues (2011) study, researchers found that women IPV survivors' trauma appraisals of fear significantly predicted PTSD. They posited, however, that this finding might have been due to the short period of time (30 days or less) that had elapsed since the IPV incident for which women were making appraisals, and that fear-PTSD links may have reflected ongoing responses to danger or the perpetrator. Importantly, the current study findings showed that the link between fear appraisals and negative trauma-related mental health outcomes remained significant in a sample of women for whom varying amounts of time had passed since their last experience of IPV. Because the amount of time passed since participants had last experienced an IPV was not well tracked, investigation into how the relationship between fear appraisals and trauma-related mental health outcomes changes as a function of time is a direction for future trauma appraisal research.

Alienation

Alienation appraisals significantly predicted trauma-related mental health outcomes. This finding is consistent with previous research showing a link between alienation and PTSD (DePrince et al., 2011; Newman, Riggs, & Roth, 1997; Roth & Newman, 1991), and alienation and depression and dissociation (DePrince et al., 2011). Most research on trauma appraisals and PTSD has not included alienation, however. DePrince and colleagues (2011) define alienation as "disconnection from one's self and others." This definition is consistent with Herman's work on complex PTSD (Herman, 1992), in which she identified disruptions of identity and interpersonal connectedness as being associated with interpersonal violence and complex PTSD. Due to the high

percentage of women in the present sample who met criteria for PTSD, and the research evidence that links alienation appraisals to PTSD and multiple forms of trauma-related distress, it is not surprising that alienation appraisals predicted trauma-related mental health outcomes for this sample. This finding is important evidence of the significant role that alienation appraisals play in the development of post-trauma outcomes for women survivors of IPV.

Anger

Trauma appraisals of anger also significantly predicted trauma-related mental health outcomes for the present sample. DePrince and colleagues (2011) found that appraisals of anger were significantly related to depression for women who had experienced non-sexual, police-investigated IPV within a month of participation. The current study replicates DePrince and colleagues' (2011) finding, and expands it to include women whose abuse was not reported to police and included sexual abuse. Though trauma appraisals of anger (i.e., "I feel angry" or "If someone says the wrong thing to me I might fly off the handle") may seem "healthier" than other kinds of appraisals (i.e., shame, self-blame), DePrince and colleagues (2011) note that anger may reflect a woman's perceived helplessness or inability to protect herself and/or her children during an experience of abuse. Further investigation of the role of anger appraisals in the development of negative mental health outcomes is an important direction for future trauma appraisal research.

Shame

Appraisals of shame did not significantly predict trauma-related mental health outcomes in the present study. This finding is inconsistent with extant research showing a

link between shame and PTSD symptoms (Andrews et al., 2000; Brewin et al., 2000), though it is consistent with DePrince and colleagues (2011) findings that shame was not related to PTSD, depression, or dissociation for women survivors of IPV. This replication of DePrince and colleagues (2011) finding is an important demonstration of how appraisals and outcomes for women IPV survivors may differ from those of other trauma survivors. It also expands DePrince and colleagues' (2011) finding to include women who experienced sexual IPV, and IPV that was not reported to the police. As was mentioned in the discussion of self-blame appraisals, shame is a self-focused cognitive appraisal. The lack of predictive significance associated with the two self-focused appraisals in this study provide an interesting point of inquiry about how appraisals of the self and appraisals of the external world differ in relation to post-trauma outcomes.

The findings for the Research Question 1 also demonstrated that women's experiences of childhood betrayal trauma impact the relationship between their IPV experiences, trauma appraisals, and trauma-related mental health outcomes. This finding is consistent with previous research. For example, Babcock and DePrince (2012) found that childhood betrayal trauma increased the likelihood that women would make appraisals of shame after experiences of IPV. Martin and colleagues (2013) found that the degree of betrayal in a traumatic experience impacts the degree of trauma appraisals that an individual makes. That is, individuals who had experienced traumas high in betrayal made more negative trauma appraisals than survivors of traumas moderate or low in betrayal. It logically follows, and is supported by present study findings, that experiencing repeated betrayal traumas throughout one's lifespan might contribute to the strength or kind of trauma appraisals that one makes, as well as outcomes.

Research Question 2

The second research question aimed to explore whether trauma appraisals mediated the relationship between women's experiences of IPV and physical health outcomes. However, there was not a significant correlation between women's IPV experiences and their physical health outcomes; thus, the question was modified, and the predictive relationships of trauma appraisal subscales for physical health outcomes were examined. Trauma appraisals accounted for 20.5%, of the variance in physical health outcomes (p=.05) with anger and self-blame as the specific trauma appraisal subscales that significantly predicted physical health outcomes for this sample. These results should be interpreted with caution, however, as the Physical Health measure had poor internal reliability and there were several limitations with measure items.

These findings are inconsistent with research revealing a significant relationship between IPV and poor physical health outcomes (Basile & Smith, 2011; Black, 2011; Black et al., 2010; Campbell, 2002; Coker et al., 2000; Grisso et al., 1999; Kendall-Tackett et al., 2000; Wuest et al., 2010). The lack of a relationship between IPV and physical health outcomes in the present study was likely due to issues with the physical health measure. First, item 12 on the 16-item measure had to be removed after data collection was complete due to a large amount of missing data for that item. Item 12 asked "In the past year, how many doctors visits have you made?" Participants expressed confusion about what counted as a doctor's visit. Because the question was eliminated, no information was collected regarding participants' utilization of health services, number of hospital stays, etc. Second, the physical health measure was an original measure that was based on the physical health measure for the ACE study (Felitti &

Anda, 1997), but modified. These original modifications may not have comprehensively assessed for all physical health outcomes associated with IPV experiences, and/or may have assessed disparate physical health issues. These issues are reflected in the measure's poor internal consistency, even after item 12 was removed ($\alpha = 0.52$). Third, the physical health measure did not adequately assess for substance abuse. Two questions asked about substance abuse: "Do you sometimes drink more than is good for you?" and "Do you use marijuana or other drugs?" Participants provided feedback that these questions did not capture their substance use experience. For example, several women completed the survey while participating in a residential drug treatment program, and expressed that they answered the questions negatively because they were not currently using substances. Other women also expressed confusion about whether they should answer based on past problems with substance abuse if they did not currently have a problem. Fourth, using a self-report measure for physical health issues means results could be influenced by participants' possible denial or lack of awareness of serious health problems. These problems with the physical health measure likely account for the lack of relationship between IPV and physical health in the present sample.

Results also highlight the potentially important roles of anger and self-blame appraisals in the development of poor physical health outcomes. To date the relationship between trauma appraisals and physical health outcomes has not been examined in the extant literature, making the finding that trauma appraisals accounted for a significant amount of the variance in physical health outcomes interesting. Although these findings are compromised by the limitations associated with the physical health measure, the

results provide enough evidence to warrant scholars' continued investigation of the relationship between trauma appraisals and physical health for IPV survivors.

Research Question 3

The third research question aimed to explore whether trauma appraisals mediated the relationship between women's experiences of IPV and vocational self-efficacy. However, there was not a significant correlation between women's experiences of IPV and their vocational self-efficacy. The question was modified, therefore, and the relationship between trauma appraisal subscales and vocational self-efficacy were examined. Regression results showed that trauma appraisals accounted for 26.5%, of the variance in women's ratings of their vocational self-efficacy, with anger ($p < .05$) and shame appraisals ($p < .05$) significantly and inversely predicting vocational self-efficacy. That is, as participants made increased appraisals of anger and shame, they reported decreased vocational self-efficacy.

These findings are inconsistent with the research literature that has demonstrated a relationship between IPV experiences and decreased vocational self-efficacy (Chronister & McWhirter, 2003, 2004, 2006; Lantrip et al., 2013; Sullivan & Bybee, 1999). Anecdotally, some women provided feedback after completing the survey that their IPV experiences impacted their vocational development in a variety of ways that were not captured by the vocational self-efficacy measure (i.e., had to leave a job to escape a violent partner, acquired a disability from IPV that prevented them from working, experienced serious mental health problems that kept them from working, partner restricted access to work opportunities, etc.). Some women also expressed that they were retired, on social security or disability, or had never worked, and had no

intention of returning to work. The VSSE measures current and future confidence in one's ability to do the specified vocational tasks, and may not have been particularly appropriate for these participants because they were not currently, nor would they be in the future, doing any of the specified tasks. It is also important to note that the number of women who were in abusive relationships at the time of study participation, or amount of time passed since women had experienced IPV were not well tracked, and likely influenced women's scores on the VSSE. It is important that future research consider a broader range of vocational constructs, as well as time passed since last experience of IPV.

Appraisals of anger and shame significantly and inversely predicted vocational self-efficacy. This finding is unique within both the trauma appraisal and vocational literature, as there has been no previous research on the relationship between trauma appraisals and vocational self-efficacy for survivors of any trauma. The current findings raise interesting questions about how anger and shame relate to vocational-self efficacy. As was mentioned for the first research question, anger may be related to women survivors' sense of helplessness or inability to protect themselves and/or their children during an experience of abuse (DePrince et al., 2011). Anger, particularly when considered as a reaction to feeling helpless, would understandably negatively impact women's self-efficacy. Similarly, previous research with trauma survivors has linked shame with experiences of submission and defeat (Andrews, 1995; Andrews et al., 2000), experiences that are also in direct contrast with confidence in one's abilities. Self-efficacy is also considered a domain-specific construct, and further research is needed to replicate

these study findings and better illuminate how anger and shame negatively impact vocational self-efficacy and possibly other domains of self-efficacy.

In sum, further research is needed on the relationships between IPV, trauma appraisals, and vocational outcomes. The present study did not adequately capture the variety of vocational outcomes women survivors of IPV experience, or how time passed since experiencing abuse might have impacted women's vocational self-efficacy. However, anger and shame were highlighted as specific trauma appraisals that negatively predict vocational self-efficacy for women IPV survivors. These results demonstrate that further investigation into the process by which appraisals of anger and shame decrease women's self-efficacy for performing vocational and other relevant tasks is warranted.

Implications

In this section, present study findings are discussed by theoretical, assessment, practice, research, and policy implications. Recommendations for future research directions in each of these areas are also discussed.

Theory

The present study expands Ehlers and Clark's (2000) cognitive theory of PTSD in several ways. First, findings suggest that other trauma-related mental health outcomes beyond PTSD, as well as other types of trauma appraisals beyond those that maintain a current sense of impending threat, should be included in this theoretical framework. The present study made a case for extending Ehlers and Clark's theory by using a mental health measure that assessed for multiple trauma-related mental health issues, and finding that multiple trauma appraisals (fear, alienation and anger) were significant predictors of these trauma-related mental health outcomes. Second, this study demonstrated that

cognitive appraisal theory is important for understanding outcomes for women IPV survivors. Ehlers and Clark's (2000) cognitive model of PTSD, as well as many other researchers' application of cognitive appraisal theory to trauma, have utilized samples of individuals who survived qualitatively different forms of trauma (i.e., motor vehicle accidents, combat, single incidences of trauma). The present study included women who experienced ongoing, relational violence and asked them to make appraisals when considering their abuse experiences as a whole rather than when considering a singular incident. Third, the present study supports the inclusion of other trauma-related outcomes beyond mental health within cognitive appraisal theory. Findings suggest that for women who identify as survivors of IPV, certain trauma appraisals may predict physical health outcomes (anger and self-blame appraisals) and vocational self-efficacy (anger and shame appraisals) as well.

Present study findings also provide support for Freyd's (1996) Betrayal Trauma Theory as dissertation results confirm a strong relationship between childhood betrayal trauma and women's cognitive appraisals. Furthermore, only one previous study has examined how childhood betrayal trauma impacted trauma appraisals after adult betrayal trauma experiences (Babcock & DePrince, 2012), and it did not examine mental health outcomes. Babcock and DePrince (2012) found that women who had experienced childhood betrayal trauma had stronger appraisals of self-blame after an IPV event than women who had not experienced childhood betrayal trauma. This finding is consistent with, and expanded by the present study, which found that controlling for childhood betrayal trauma changed the relationships between women's IPV experiences, trauma appraisals, and mental health outcomes. Both the present study findings and those of

Babcock and DePrince (2012) are consistent with Betrayal Trauma Theory. They both provide support for the idea that betrayal traumas are cognitively processed differently from other kinds of trauma by showing that childhood betrayal trauma impacts the cognitive appraisals of trauma women make in adulthood. Furthermore, the finding that betrayal appraisals were significantly correlated with all of the negative outcomes, as well as other negative appraisals, demonstrates how developing an awareness of betrayal may have serious consequences for the survivor. Betrayal trauma theory highlights how maintaining an unawareness of betrayal is self-protective in many ways, and protects the relationship with the abuser. These results are consistent with this aspect of the theory, and show the potential risks involved in making betrayal appraisals. More research is needed to investigate how childhood betrayal trauma impacts cognitive appraisals after trauma (i.e., are other trauma appraisals besides self-blame stronger for childhood betrayal trauma survivors? Do trauma appraisals mediate the relationship between childhood betrayal trauma and specific mental health outcomes?).

Assessment

This study also has implications for assessment of trauma-related mental health, physical health, and vocational development for women survivors of IPV, and suggests that conceptualizing traumatic experiences in terms of appraisals, rather than only in terms of characteristics of the traumatic event, may be especially important for understanding individual outcomes. For present study participants, overall appraisals of betrayal, self-blame, fear, alienation, anger, and shame fully mediated the relationship between IPV and trauma-related mental health outcomes, though the mediation became partial when controlling for childhood betrayal trauma experiences. Also, fear, alienation,

and anger appraisals specifically predicted trauma-related mental health outcomes. The DSM-5 places great emphasis on the "severity" of the traumatic event in Criterion A, which specifies that a traumatic event must involve exposure to actual or threatened death, serious injury, or sexual violence. Present study findings demonstrate that trauma appraisals should be prioritized in the assessment of mental health problems for IPV survivors. This idea is consistent with a host of other trauma appraisal studies that suggest that survivors' appraisals of traumatic events account for the variance in mental health outcomes better than characteristics of the event itself (DePrince et al., 2010; DePrince et al., 2011; Martin et al., 2013), and with feminist critiques of psychiatric assessment practices which support survivors as the expert of their experiences (Burstow, 2003). Furthermore, appraisals may actually reflect the "severity" of a traumatic event and further empirical investigation is needed to compare multiple and diverse measurements and sources of data about a traumatic event.

The present study has particularly interesting implications for assessment in medical care and vocational development settings. Though medical care providers, vocational counselors, and teachers may be just as, if not more likely than mental health professionals to interact with women who have experienced IPV, it is not common practice for them to assess for the strength and kind of trauma appraisals women make after experiences of IPV. The present findings demonstrate that trauma appraisals have an influence on the development of both physical health problems and vocational self-efficacy for IPV survivors, and are important to assess when determining appropriate interventions and/or supports for women's physical health and vocational development after experiencing IPV.

Finally, the present study showed significant between group differences for women's own evaluations of abuse severity, their employment status, disability, and mental health treatment received. Mental health assessment should consider how these important contextual factors might mitigate trauma-related mental health, physical health, and vocational self-efficacy outcomes for IPV survivors. Furthermore, several contextual factors were not examined with the present study, but may influence the kind and strength of women's trauma appraisals and outcomes.

Practice

The practice implications of the present study span mental health care, medical health care, and vocational development services. First, study results show that cognitive appraisals are a potentially important target for mental health counseling with IPV survivors. The current study specifically highlighted the role of fear, anger, and alienation in the development of trauma-related mental health outcomes. Though fear and anger have received much attention in research about trauma-related mental health problems (e.g., Brewin et al., 2000; Ehlers & Clark, 2000; Feeny et al., 2000; Kaysen et al., 2005; Resick & Schnicke, 1993; Riggs et al., 1993), alienation is clearly an important aspect of women's experiences of IPV, as well as their mental health outcomes. Herman (1992) focused on the importance of disconnection in her seminal *Trauma and Recovery*, emphasizing that interpersonal trauma is a violation of human connection that results in disempowerment and disconnection from the self and others. Mental health professionals who work with IPV survivors need to attend to this disconnection. Feminist, relational therapy approaches provide a relationship context (client-therapist) in which an IPV survivor may learn to use previously disconnected parts of her self, and engage in social

information processing in a more fully integrated manner (Freyd, 1996; Herman, 1992). In establishing trust, boundaries, and a collaborative relationship wherein the survivor experiences emotional intimacy and autonomy, the survivor and therapist can foster connection for the survivor with her self and with others.

Further, mental health professionals have often promoted trauma therapies aimed at symptom reduction and rehabilitation to a more "functional," trusting state. Burstow (2003) provides a critique of these deficiency models, and argues that for survivors of interpersonal trauma mistrust, along with other trauma "symptoms," are very appropriate. Feminist scholars have likewise suggested that what are generally considered to be trauma symptoms rather should be understood as functional strategies for coping and survival (Burstow, 2003; Freyd, 1996; Herman, 1992). Burstow (2003) emphasizes the importance of mental health professionals honoring these strategies for abuse survivors, and working collaboratively with them to increase their sense of choice by developing other options. In terms of the present study, this perspective suggests that mental health professionals should work to understand and honor the functional value of survivors' anger, fear, and alienation, and help them increase the kinds of appraisals that fit for them.

Feminist scholars (Burstow, 2003; Herman, 1992; Platt, Barton, & Freyd, 2009) have also emphasized that overly focusing on internal changes within the abuse survivor without addressing the sociocultural and institutional structures that promote negative outcomes for her creates a danger of pathologizing abuse survivors. Sociocultural attitudes that promote IPV survivors' alienation, anger, and fear are prevalent, and can include views of survivors as being defiled, having provoked abuse, or being to blame for

abuse they experienced. Social messages also alienate survivors from their communities by minimizing the impact of abuse, and perpetuating narrow and inaccurate notions of what constitutes abuse and how survivors should respond. IPV survivors also experience institutional betrayal as mental health and medical professionals fail to respond appropriately to women who are experiencing abuse (Platt et al., 2009). There is often a great deal of judgment in mental health, medical, and vocational contexts aimed at women who remain in or return to abusive relationships, or who have experienced multiple abusive relationships. Mental health professionals who want to address the alienation, anger, and fear that women survivors of IPV experience, and the deleterious effects that it can have on their lives, need to engage in social activist and community efforts to promote awareness around IPV and related issues. Systems-level interventions that aim to address community and institutional responses to IPV are hugely important in addressing women's trauma appraisals, and subsequent mental health outcomes.

Outside of mental health professionals, medical care providers potentially have a unique role in addressing how women IPV survivors make trauma appraisals. Medical professionals are likely to come into contact with women who may not seek mental health treatment, as 36.7% of women in the present sample reported that they never received any form of mental health treatment. Medical professionals who can identify the kinds of trauma appraisals that women are making and counter, or provide alternatives to, those that are associated with poor health outcomes may be able to intervene in the development/maintenance of some trauma-related physical health outcomes. Vocational counselors, academic advisors, and teachers will also be better able to serve their clients and students who are IPV survivors by addressing and offering alternatives to the kinds

of trauma appraisals that predict poor vocational self-efficacy. Young adult women are currently the highest risk group for IPV and sexual assault. Preventive interventions that promote women's safety and academic persistence, as well as interventions that specifically target women's appraisals of anger and shame, would likely make a significant impact on women IPV survivors' vocational self-efficacy (Chronister, 2014).

Research

The findings suggest many future directions for trauma appraisal research. This study was a first step in establishing empirically a link between specific trauma appraisals and trauma-related mental health, physical health, and vocational self-efficacy outcomes with a sample of adult IPV survivors. Future research should include examinations of how trauma appraisals predict specific mental and physical health outcomes (i.e., examining depression, anxiety, dissociation, and PTSD separately; examining substance use, stress, utilization of health resources, and specific health problems separately) and examination of vocational outcomes beyond self-efficacy. Another direction for future research is to further investigate the role of betrayal trauma in the development of trauma appraisals and trauma-related mental health outcomes for IPV survivors. Childhood betrayal trauma has recently been an area of focus of trauma appraisal researchers (Babcock & DePrince, 2012; DePrince et al., 2011; Martin et al., 2013), and has consistently been demonstrated to be an important factor in the types of trauma appraisals that individuals use and the post-traumatic outcomes that develop.

Future research would also benefit from the use of longitudinal, multi-method, and multi-agent study designs. It is unclear from the present study findings if the trauma appraisals that women made were consistent over time or not. It would be interesting to

learn more about how cognitive appraisals might shift as a result of traumatic experiences. For example, if a woman is inclined to make self-blame appraisals prior to a traumatic experience, will the trauma exacerbate that tendency? It would also be interesting to see if a change in appraisals promotes a change in mental health outcomes. This would be particularly important for physical health, because many women may not have an accurate understanding of their physical health problems, or may have denial about physical health problems. Furthermore, future longitudinal research should examine the temporal sequencing of survivors' appraisals and their emotional responses to establish how each variable influences the other over time.

Finally, an important future direction for research is to examine the role of trauma appraisals in the promotion of resilience or post-traumatic growth. Most of trauma-related research focuses on the negative responses and outcomes associated with trauma, yet there has been a developing area of investigation about how internal changes and transformation after a traumatic event can lead to positive outcomes including, a changed perception of self, sense of new possibilities in life, a newfound appreciation of life, enhanced spirituality, changed and improved relationships with others, and increased mindfulness toward the meaning of life and one's place in the world (Janoff-Bulman, 2004; Park & Helgeson, 2006; Tedeschi & Calhoun, 2004). There has been little research identifying the kinds of trauma appraisals that may play a role in the development of post-traumatic growth. The research that does exist has focused on how lack of negative appraisals (i.e., lack of self-blame) predicts post-traumatic growth (Lancaster, Kloep, Rodriguez, & Weston, 2014), rather than identifying new trauma appraisals that play a role in positive transformation in the aftermath of a traumatic event.

Policy

Organizations that aim to provide mental health and physical health services, as well as vocational development services, to IPV survivors would likely benefit from policies that increase professional awareness of the different kinds of appraisals that are linked with outcomes for trauma survivors. Study findings also suggest that it would be beneficial for organizations that serve IPV survivors to communicate with clients in ways that do not reinforce self-blame, fear, or shame; that are sensitive to anger and alienation; and that help women identify betrayal in their lives.

Present study findings also support a systemic shift in the way in which abuse experiences are conceptualized and measured. IPV was defined broadly to include physical, sexual, and psychological abuse over time. Findings demonstrated that IPV survivors' evaluations of their IPV experiences fully mediated the relationship between characteristics of their IPV experiences and their trauma-related mental health outcomes. Mental health practice and research for IPV survivors may be greatly enhanced with more comprehensive measurement and understanding of IPV incidences, the contexts in which such incidences and relationships unfold, and women's evaluations of these experiences.

Community and Social Response to IPV

The present findings also have implications for community education and intervention. Women face many barriers to disclosing their experiences of IPV, and the response that they receive from others after they disclose is an important contextual factor that may impact the type and strength of the appraisals women make. For this sample, 12% of women reported that they had not disclosed their abuse to anyone prior to

study participation. Some women also expressed during study participation that they had felt judged by family, friends, and helping professionals for staying in, and/or returning to abusive relationships, which led to a sense of disconnection from their communities. Raising public awareness about abuse, its impact on the lives of survivors, and how to respond supportively to survivors, may be an important strategy for influencing women's appraisals of betrayal, self-blame, fear, anger, alienation, and shame.

Strengths and Limitations

Sample

A major strength of this dissertation study is the participant sample, which included adult women whose experiences of IPV were diverse and included physical, sexual, and psychological abuse. Few trauma appraisal studies have included women who have experienced IPV (DePrince et al., 2011; DePrince et al., 2012; Martin et al., 2013), and those that have included IPV survivors have excluded women whose experiences (1) were not reported to the police; (2) included sexual abuse; and (3) happened more than 30 days prior to study participation. Only 23 women (14.56%) of the current study sample reported that they disclosed their IPV experiences to police, and 19 women (12%) reported that they had not disclosed their experiences of abuse to anyone prior to study participation. The current study sample also included women whose experiences of IPV had happened in the past. The current study sample is unique within the trauma appraisal literature, and may allow for increased generalizability of results because a broader range of IPV experiences are represented.

A limitation of the present study is the failure to track how participants were referred for study participation. Many women heard about the study through word of

mouth from family or friends who had participated. Women emailed me to let me know that they had posted about the study on social media, or that they had taken it upon themselves to make copies of fliers and bring them to other organizations that they utilized where formal recruitment was not taking place. Though there was a write-in option for women to describe how they had heard about the study, many wrote in a person's name, and it was unclear what their relationship was to the referral person (i.e., friend, family member, therapist, doctor, etc.), or if that person was associated with an organization. Others wrote in things like, "a flier" or "my therapist" that did not provide much information about which organization or person put them in contact with the study. As a result, little is known about actual sampling procedures and how those procedures affected who participated in this study and sample characteristics.

Design and Procedures

The present study was strengthened by the inclusion of three different survey administration methods, in that it increased IPV survivors' access to study participation, captured diverse IPV and trauma-related mental health experiences, and ultimately may be more generalizable to the population of women survivors of IPV. There were between group differences in terms of survey administration method (over-the-phone, in-person, and online) for scores on measures of IPV and trauma-related mental health, however, with women who took the survey in-person or over-the-phone scoring significantly higher on both measures than women who took the survey online. A major design limitation of the present study is that it is exploratory and non-experimental, and all data were collected at one time point. Though predictive relationships were examined and found for each of the three research questions, causal relationships between variables

could not be established.

Strengths in measurement for the present study include the way in which IPV, trauma appraisals, and trauma-related mental health were measured. The ABI measures women's experiences of physical, sexual, and psychological abuse. Sexual and psychological abuse in the context of IPV have been underrepresented in the small amount of trauma appraisal literature that includes IPV survivors at all (DePrince et al., 2011; Martin et al., 2013). The TAQ provided a validated, consistent measure of trauma appraisals that uniquely measures six trauma appraisals simultaneously. Previous research on trauma appraisals has tended to focus on one type of appraisal, or used inconsistent measures when focusing on two or more appraisals (e.g., Andrews et al., 2000; Bretienbecher, 2006; Brewin, 2000; Kaysen et al., 2005). The TSC-40 provided a broadened conceptualization of trauma-related mental health that included depression, dissociation, and anxiety, as opposed to solely considering PTSD as a mental health outcome for trauma survivors. All of these measures (ABI, TAQ, and TSC-40) demonstrated movement toward a more comprehensive and inclusive view of IPV and related trauma appraisals and mental health outcomes.

Another measurement issue was the reliance on self-report at one time point. The mono-method, mono-agent quality of measurement increases the likelihood of several types of reporting bias and does not reflect how variables may change over time. It remains unclear whether trauma appraisals change as a result of a traumatic event, or whether the kinds of appraisals a woman is already making are exacerbated by a traumatic event, etc. It is also possible that because data were collected at one time point, the mediation model could have been organized differently, and researchers would find

that trauma-related mental health outcomes predict the kinds of appraisals that women make. More research is needed to explore causal relationships between traumatic events, appraisals, and outcomes.

Another important limitation in measurement was that many contextual factors related to participants' abuse experiences were not measured (i.e., participants' own abusive behaviors, time passed since last experience of IPV, access to resources and/or social support, community response to disclosure, issues related to parenting, etc.). These contextual factors related to women's abuse experiences may influence the kinds and strength of trauma appraisals that women make. For example, if a woman remains connected to important, nurturing relationships during or after her experience of IPV, she may be less likely to make strong appraisals of alienation. The present study found several between group differences among contextual factors like employment status, disability status, and mental health treatment received, but did not further examine how different patterns of appraisals and outcomes might emerge for different groups. Future research should consider the influence these contextual factors may have on the development of trauma appraisals and outcomes. Finally, there were several limitations related to the physical health measure, which compromised the quality of findings related to Research Question 2.

Conclusion

The present study provides evidence that trauma appraisals are a hopeful avenue for investigating and addressing some of the negative outcomes associated with women's experiences of IPV. This research provides a unique contribution to the trauma appraisal literature by (a) establishing the mediating role of trauma appraisals for the relationship

between women's experiences of IPV and a broad array of mental health outcomes; (b) examining the relationships among specific trauma appraisals and three different outcomes (mental health, physical health, and vocational self-efficacy); and (c) doing so with a new, diverse sample of adult women IPV survivors. The present study is an important step in demonstrating that trauma appraisals are, in fact, a theoretically relevant construct, meaningful area for assessment and research, and a potential target for intervention that may greatly impact how selected preventive interventions are developed to increase positive health adjustment and promote other factors associated with women survivors' positive well-being long term.

APPENDIX

DEMOGRAPHIC SURVEY

Participant Code_____

1. Age_____

2. How do you identify in terms of race/ethnicity (circle all that apply)?

    1. Black/African American
    2. White/Caucasian/European American
    3. Asian American
    4. Hispanic or Latino/a
    5. Native American/Alaskan Aleut
    7. Native Hawaiian/Pacific Islander
    8. Other (indicate: _____)

3. What is the highest level of education you have completed so far (circle one)?

    1. No high school
    2. Some high school
    3. Graduated high school
    4. Some college
    5. Associates degree/Vocational or Trade School training program
    6. Bachelor's degree
    7. Graduate degree

4. Have you ever participated in a vocational training program beyond high school (circle one)? Yes/ No

If yes, what kind of program?

_____

5. Are you currently employed (circle one)? Yes/ No

If no, how long have you been unemployed? _____

If yes, how long have you been employed? _____

If yes, what is your current occupation? _____

If yes, what is your monthly income from this job? _____

How much additional income do you receive from other sources (e.g., child support, alimony, SSI or disability compensation, etc.)?

_____

If yes, how satisfied are you with your job (circle one)?

Very unsatisfied	Somewhat satisfied	Very satisfied
1	2	3

6. How do you support yourself (circle all that apply)?

1. Paid work
2. Support from family member/friend(s)
3. Disability benefits
4. Social Security benefits
5. Veterans benefits
6. Food stamps
7. Food banks/food rooms
8. Clothing rooms
9. Other (indicate:_____)

7. Do you have a disability (circle one)? Yes/ No

If yes, what is the nature of your disability? _____

8. Are you currently in a romantic relationship/intimate partnership (circle one)? Yes/ No

If yes, how long have you been in this relationship? _____

If yes, what is the sex of your partner? _____

9. In how many of your romantic relationships, since you were age 18 years, have you experienced abuse (physical, sexual, psychological/emotional, or economic) from your romantic partner (what number)? _____

10. How long has it been since you experienced abuse from a romantic/intimate partner (physical, sexual, psychological/emotional, or economic)?

11. Did you ever tell anyone about the intimate partner abuse you experienced (circle one)? Yes/ No

If yes, what was your relationship to the person(s) you told?

_____

13. Relative to other women's experiences, how severe do you think your abuse experience(s) was(were) in your romantic relationship(s)?

___ Not Severe ___ Moderately Severe ___ Very Severe

12. Did you ever receive any form of mental health treatment to help deal with the romantic relationship abuse that you experienced (circle one)? Yes/ No

If yes, what kind of treatment did you receive (circle one):

1. Individual counseling
2. Group counseling/support group
3. Crisis support services
4. Psychiatric services

5. Faith/ Religious support services

5. Other (indicate:_____)

If yes, how long did you receive treatment (indicate in months)?_____

If yes, how helpful did you find the treatment to be (circle one)?

Not at all helpful	Somewhat helpful	Very helpful
1	2	3

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