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**AN EXPLORATION OF INTIMATE PARTNER VIOLENCE AMONG PATIENTS  
WITH DISSOCIATIVE DISORDERS**

**by**

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## THESIS APPROVAL PAGE


This is to certify that the thesis prepared by Aliya Webermann

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**Abstract****AN EXPLORATION OF INTIMATE PARTNER VIOLENCE AMONG PATIENTS  
WITH DISSOCIATIVE DISORDERS****by****Aliya R. Webermann**

Childhood maltreatment (CM) and dissociation are noted risk factors for intimate partner violence (IPV) in adulthood. Patients diagnosed with complex dissociative disorders (DDs) are at the intersection of these two risk factors, and likely to experience IPV, but few studies have explored IPV within the DD population. The present study examined IPV among DD patients in a longitudinal educational intervention study. Clinicians reported on patients' lifetime rates of adult physical, emotional, and sexual IPV as both victims and perpetrators, and patients' childhood family dynamics. Patients reported on their IPV and dissociative symptoms occurring while perpetrating IPV. Analyses revealed that patient-reported dissociative symptoms accurately predicted which patients had a history of clinician-reported physical IPV, and dissociative symptoms were significantly correlated with dissociative violence. In addition, patients with clinician-reported IPV had significantly worse childhood family dynamics. The present study's contributions to the literature, as well as directions for future research, are discussed.

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**List of Abbreviations**

**CM: Childhood maltreatment**

**CTS2S: Revised Conflict Tactics Scale-Short Form**

**DDs: Dissociative disorders**

**DDNOS: Dissociative disorder not otherwise specified**

**DES: Dissociative Experiences Scale**

**DFA: Discriminant function analysis**

**DID: Dissociative identity disorder**

**DSM-5: Diagnostic and Statistical Manual of Mental Disorders-Fifth Edition**

**DV: Domestic violence**

**DVQ: Dissociative Violence Questionnaire**

**IPV: Intimate partner violence**

**OSDD: Other specified dissociative disorder**

**PTSD: Posttraumatic stress disorder**

### An Exploration of Intimate Partner Violence among Patients with Dissociative Disorders

Intimate partner violence (IPV), defined as physical, sexual, psychological, or emotional harm from a current or former partner or spouse, is a common and damaging experience (Centers for Disease Control and Prevention, 2013). Within relationships encompassing IPV, physical and emotional abuse are common. One in four women and one in seven men experience severe physical abuse in their adult lifetime, while one in two women and men report experiencing emotional abuse (Centers for Disease Control and Prevention, 2011). Sexual abuse is also common within interpersonal relationships, including intimate and familial relationships. Sexual violence, including coercion and unwanted sexual experiences, occurs among nearly one in two women and one in four men, while one in five women and one in 71 men report being raped (Centers for Disease Control and Prevention, 2011).

Epidemiological rates of IPV perpetration are not as well documented as they are with IPV victimization. However, a recent study found that among a nationally representative sample, 19.2% of men self-reported lifetime physical IPV perpetration toward their current partner, which included slapping/hitting, pushing/grabbing, choking, burning, or threatening with a weapon (Singh, Tolman, Walton, Chermack, & Cunningham, 2014). The consequences of IPV for victims include myriad medical issues such as asthma, diabetes, irritable bowel syndrome, and headaches, and mental health issues such as posttraumatic stress disorder (PTSD), major depressive disorder, and generalized anxiety disorder (Centers for Disease Control and Prevention, 2011).

### **Causes and Outcomes of Interpersonal Violence**

The impact of IPV on victims is staggering, especially for women, who bear the brunt of the personal and societal impact of IPV. Eighty-one percent of women and 35% of men who

experience IPV report an adverse health or safety outcome, such as emergency medical treatment of injuries, shelter stays, and feeling fearful for one's life (Centers for Disease Control and Prevention, 2011; Melton & Belknap, 2003). IPV research often focuses on the causes and correlates of victimization, but importantly, perpetrators of IPV typically commit multiple offenses against their partners (Rand & Saltzman, 2003), and most offenders tend to victimize multiple individuals (Lisak & Miller, 2002). Thus, focusing prevention and intervention efforts on abuse perpetration could have a larger impact on reducing violence than solely focusing on victimization.

Research on the causes of abuse perpetration has examined the role of emotion dysregulation (Gratz, Paulson, Jakupcak, & Tull, 2009), substance abuse (Chen & White, 2004; Swanson, Holzer, Ganju, & Jono, 1990), deficits in social information processing and attribution of hostile intent in others (Dodge, Bates, & Pettit, 1990), insecure attachment (Alexander, 2015), antisocial personality features (Holtzworth-Munroe & Stuart, 1994; White & Widom, 2003) and PTSD (Dutton, 1995). Another line of inquiry regarding predictors of IPV focuses on antecedent childhood physical, sexual, and emotional maltreatment (CM), as well as exposure to traumas such as familial domestic violence (DV) and neglect. Studies of violent offenders, typically males, have demonstrated high rates of CM histories (Table 1). The connection between CM and IPV perpetration has been shown within samples of college undergraduates (Lisak, Hopper, & Song, 1996), spousal abusers in a battering intervention program (Dutton, 1995; Simoneti, Scott, & Murphy, 2000), sex offenders in a treatment program (Becker-Blease & Freyd, 2007; Ellason & Ross, 1999), sex offenders in prison (Hulnick, 1997), incarcerated youth and adults (Millett, Kohl, Jonson-Reid, Drake, & Petra, 2013; Swica, Lewis, & Lewis, 1996), and convicted murderers on death row (Lewis, Yeager, Swica, Pincus, & Lewis, 1997). Though most survivors



of CM do not become perpetrators of IPV (Lisak et al., 1996), it is plausible that much abuse in intimate adult relationships is perpetrated by survivors of CM.

Further examination of the causes and outcomes of CM is necessary to understand it as a causal factor in IPV. CM has been retrospectively reported in 20-40% of all adults, with nearly one in three adults reporting childhood physical abuse and one in five adults reporting childhood sexual abuse (Felitti et al., 1998). Furthermore, the majority of sexual violence targets children and young adults: 80% of female sexual assault victims are under age 25, 42% of female sexual assault victims are under age 18, and 28% of male sexual assault victims are ten years old or younger (Centers for Disease Control and Prevention, 2011). The extensive negative medical and mental health outcomes of CM have been well-documented in retrospective (e.g., Felitti et al., 1998; Putnam, Harris, & Putnam, 2013) and longitudinal studies (e.g., Jonson-Reid, Kohl, & Drake, 2012; Trickett, Noll, & Putnam, 2011) of CM survivors. Medical consequences from this early exposure to severe trauma include heart disease, cancer, gastrointestinal issues, STDs, and obesity, among others (Felitti et al., 1998; Trickett et al., 2011). A range of psychopathology is linked to CM, including PTSD, borderline and antisocial personality features, and conduct disorder, among others (American Psychiatric Association, 2013), as well as the presence of complex comorbid psychopathology (Cloitre, Miranda, Stovall-McClough, & Han, 2005; Putnam et al., 2013).

A common psychological response to childhood trauma is dissociation, especially among young children experiencing severe and frequent physical, sexual, and emotional abuse (e.g., Carlson et al., 2001; Dalenberg et al., 2012; Lyons-Ruth, Dutra, Schuder, & Bianchi, 2006; Ogawa, Sroufe, Weinfield, Carlson, & Egeland, 1997; Trickett et al., 2011; Zoroglu et al., 2003). Dissociation is defined in the DSM-5 (American Psychiatric Association, 2013) as “a disruption

of and/or discontinuity in the normal integration of consciousness, memory, identity, emotion, perception, body representation, motor control, and behavior” (p. 291). Dissociation is theorized to have a protective capacity for children, in that it keeps them from experiencing the full impact of trauma (Bremner & Marmar, 1998; Loewenstein & Putnam, 1990; Putnam, 1991), allows them to compartmentalize their abuse experiences and remain otherwise functional (Freyd & DePrince, 2001; Ludwig, 1983; Spiegel, 1984; van der Hart, Nijenhuis, & Steele, 2006), enables them to tolerate experiencing fear toward and dependence on an abusive caregiver (Freyd, 1994; Freyd, 1996; Freyd, DePrince, & Zurbriggen, 2001) and increases their tolerance for physical pain (Giolas & Sanders, 1992; Ludäscher et al., 2010; Nijenhuis, Vanderlinden, & Spinhoven, 1998; Schauer & Elbert, 2010). Dissociative symptoms can include depersonalization (experiencing a sense of unreality or detachment from one’s own body), derealization (experiencing a sense of unreality or detachment from one’s surroundings), amnesia (inability to recall traumatic autobiographical information), and identity fragmentation coupled with amnesia, as occurs in dissociative identity disorder (DID) (American Psychiatric Association, 2013).

The etiological role of CM in complex dissociative disorders (DDs), which include DID and dissociative disorder not otherwise specified (DDNOS)/other specified dissociative disorder (OSDD), is supported by rates of CM characteristically ranging between 80-95% (e.g., Boon & Draijer, 1993; Brand, Classen, Lanius, et al., 2009; Dalenberg et al., 2012; Ellason, Ross, & Fuchs, 1999; Lewis et al., 1997; Putnam, Guroff, Silberman, Barban, & Post, 1986; Ross & Ness, 2010; Saxe et al. 1993; Swica et al., 1996; Yargıç, Şar, Tutkun, & Alyanak, 1998). Dissociation, while adaptive for abused children, is a highly maladaptive coping strategy for adults who are no longer in a situation that requires them to dissociate in order to physically and psychologically survive. Patients with DDs are typically polysymptomatic and often present with

comorbid disorders and complex posttrauma symptoms such as substance abuse, depression and anxiety, high rates of self-harm and suicidal ideation, and personality disorders (e.g., Brand, Classen, Lanius, et al., 2009; Foote, 2013; Johnson, Cohen, Kasen, & Brook, 2006; Rodewald, Wilhelm-Gößling, Emrich, Reddemann, & Gast, 2011; Webermann, Myrick, Taylor, Chasson, & Brand, in press).

DDs, especially DID, require lengthy and intensive treatment, and are often misunderstood and underdiagnosed by clinicians (International Society for the Study of Trauma and Dissociation, 2011; Loewenstein, 1994). DID patients spend an average of seven years in the mental health care system and receive multiple inaccurate diagnoses before receiving an accurate DID diagnosis and subsequently being able to start appropriate treatment (Boon & Draijer, 1993; Fraser & Raine, 1992; Hornstein & Putnam, 1992; Lloyd, 2011; Putnam et al., 1986; Ross & Dua, 1993; Ross, Joshi, & Currie, 1990).

The empirical study of DDs and its treatments is relatively new and limited. As aforementioned, individuals with DDs are survivors of severe trauma who exhibit more debilitating psychiatric symptoms than many individuals with other psychological disorders (Johnson et al., 2006), and they are frequent utilizers of mental and physical healthcare services as well as disability support (Mueller-Pfeiffer et al., 2012). Brand, Classen, McNary, and Zaveri (2009) documented the paucity of DD treatment research through a meta-analysis on treatment outcome studies for all DDs in which only eight total studies qualified for study inclusion. Despite the polysymptomatic nature of DDs, DD patients' marked functional impairment, and the advent of efficacious treatments (International Society for the Study of Trauma and Dissociation, 2011), the study of complex trauma (e.g., chronic interpersonal abuse) remains overshadowed by the study of "simple" traumas such as a car accident or natural disaster. It is

crucial for the larger trauma field of clinicians and researchers to prioritize the study of dissociation and DDs, as DDs typically do not spontaneously remit or yield an intense but short symptom duration as does PTSD. Rather, untreated symptoms will worsen with chronicity and subsequent repeated exposure to trauma (American Psychiatric Association, 2013).

### **Dissociation among Violent Offenders**

Dissociation has been theorized as one of many causal factors in societal violence, such as among serial killers (Carlisle, 1993), school shooters (Moskowitz, 2004a), and interpersonal violence perpetrators, such as spousal abusers, sex offenders, and abusive parents (Moskowitz, 2004a). Research on interpersonally violent offenders suggests that they frequently experience dissociative symptoms preceding, during, and after their offenses, most notably amnesia, depersonalization, and derealization (Moskowitz, 2004a). Among those victimized as children who later go on to victimize others, dissociation preceding violence has been theorized to develop from overwhelming feelings of rage and hopelessness these individuals experience in response to severe CM. Dissociative victims of CM who later become violent may cope through imagery of a protector aggressively intervening on their behalf, or by identifying with their perpetrator, and this may lead the victim to develop a violent self-state (Kluft, 1987; Moskowitz, 2004b), defined as a distinct and alternate personality state (American Psychiatric Association, 2013). In examining why dissociation may facilitate survivors of CM in perpetrating violence toward others, Egeland and Susman-Stillman (1996) and Ross (2008) posit that dissociation during violent offenses allows a violent offender to emotionally distance from the offense and maintain minimal empathy for their victim, especially when perpetrating violence and abuse similar to their own victimization experiences. Similarly, amnesia may also contribute to violence perpetration. Amnesia is a common dissociative symptom after a violent crime, with

estimates that one-third of homicide offenders report partial or full amnesia for their crime (Moskowitz, 2004a). Amnesia for violent crime is associated with a history of CM (Lewis et al., 1996; Simoneti et al., 2000), substance use, and hyperarousal (Kopelman, 1987; Schacter, 1986).

Studies on dissociation among interpersonally violent offenders have theorized dissociation as a mediator between CM and adult IPV perpetration. However, this is based on correlational research in violent offenders showing elevated trait dissociation (e.g., Becker-Blease & Freyd, 2007; Simoneti et al., 2000), higher retrospectively reported peritraumatic dissociation during CM and abuse perpetration (i.e., acute dissociative responses as traumatic events unfold; Marmar, Metzler, & Otte, 2004), and increased rates of diagnosed DDs among violent offenders (Table 2; Becker-Blease & Freyd, 2007; Ellason & Ross, 1999; Lewis et al., 1997; Simoneti et al., 2000; Swica et al., 1996). Existing research on dissociation among perpetrators of interpersonal violence has utilized samples of spousal abusers in a battering intervention program (Simoneti et al., 2000), sex offenders in treatment (Becker-Blease & Freyd, 2007; Ellason & Ross, 1999; Graham, 1993), incarcerated sex offenders (Hulnick, 1997; Leibowitz, 2007; Ross, 2008), incarcerated violent offenders (Lewis et al., 1997; Swica et al., 1996), CM survivors who abuse their own children (Egeland & Susman-Stillman, 1996), and college students (Narang & Contreras, 2000).

A study by Becker-Blease and Freyd (2007) of adults in a sex offender treatment program showed that peritraumatic dissociation during the offenders' experiences of being victimized as children was significantly correlated with peritraumatic dissociation reported while sexually victimizing others as adults. Additionally, Becker-Blease and Freyd (2007) found that trait dissociation was significantly correlated with peritraumatic dissociation during both the offenders' sexual victimization as children as well as their sexual perpetration toward others in

adulthood. The authors theorized that sex offenders used dissociation in childhood to protect themselves from the emotional and psychological impact of being victimized, and in adulthood, this dissociation allowed them to ignore feelings and memories related to their own abuse. This forgetting subsequently enabled them to perpetrate similar abuses toward others, as this perpetration would likely be highly psychologically painful in the context of memories of their own victimization.

Simoneti and colleagues (2000) found that spousal abusers in a battering intervention program who witnessed interparental DV in childhood were significantly more likely to dissociate during their own perpetration of IPV in adulthood, as compared to those who did not witness interparental DV in childhood. Additionally, those with a history of childhood physical abuse, childhood sexual abuse, and witnessing of DV were significantly more likely to experience dissociative symptoms in adulthood, such as amnesia and depersonalization. In addition, higher trait dissociation correlated with higher violence-specific dissociation. The authors postulated that dissociation in childhood (stemming from trauma exposure) leads to the development of defenses related to suppression of volatile emotionality and rage, and these defenses continue into adulthood. In turn, this defensiveness is associated with IPV perpetration, as individuals who cannot understand or express the overwhelming emotions or powerlessness they experienced as childhood victims are more likely to perpetrate abuse toward others.

Lastly, Egeland and Susman-Stillman (1996) compared differences between survivors of CM who went on to abuse their own children versus CM survivors who did not abuse their children. Egeland and Susman-Stillman (1996) found significantly higher trait dissociation among abusive mothers, who demonstrated idealization (i.e., unrealistically positive descriptions incongruous with actual experiences) regarding their childhood, escapist behaviors (e.g., drug

and alcohol use and suicide attempts), as well as inconsistent and fragmented recall of their own childhood victimization histories. Mothers who broke the cycle of abuse provided more cohesive and personalized narratives of their childhood trauma history, and evidenced low levels of trait dissociation. The authors theorized that the abusive mothers had not resolved their own trauma enough to develop a cohesive trauma narrative, and subsequently exhibited a deficit in empathy and emotional engagement for their own children. By extension, they were prone to dissociative experiences which increased their risk of victimizing their children, including intrusive and overwhelming emotions, violent flashbacks, and behavioral re-enactments.

### **Violence among Individuals with Dissociative Disorders**

Only a few studies to date have examined violent behavior, the presence of violent dissociative self-states, and abusive relationships among individuals diagnosed with DDs. Pioneering case study reviews by Putnam and colleagues (1986), Loewenstein and Putnam (1990), and Ross and Norton (1989) suggested high rates of therapist-reported violent behavior and violent dissociative self-states among DD patients. Within a sample of mostly female DID patients, Putnam and colleagues (1986) found the following rates of reported violent behavior: 70% reported violent self-states, 29% reported homicidal behavior, 20% reported perpetrating rape, and 6% reported committing homicide. Loewenstein and Putnam (1990) reported even more frequent and severe violent behavior among an all-male DID patient sample: violent self-states reported in 90%, criminal violent behavior and incarceration reported in 47%, homicidal alters reported in 35%, homicide reported in 19%, and rape perpetration reported in 13%. In a mixed-gender sample of DID patients, Ross and Norton (1989) found that 28.6% of males and 9.7% of females had been convicted of crimes, and 28.6% of males and 10.2% of females had been incarcerated. In addition, a study on dissociation and aggressive behavior among

hospitalized psychiatric patients found significant correlations between patients' trait dissociation and staff-reported sexual aggression toward others (Quimby & Putnam, 1991).

The potentially high incidence of violent self-states and behavior among DID patients, especially male patients, along with a much higher rate of females being diagnosed and treated for DID (American Psychiatric Association, 2013), has led researchers to theorize that men are underdiagnosed for DID because they are present in the criminal justice system more often than the mental health system for treatment and/or research (Loewenstein & Putnam, 1990; Moskowitz, 2004a; Putnam et al., 1986; Ross, 2008; Ross & Norton, 1989). In one of the few studies on the cycle of violence among DID patients, Kluft (1987) reported that that 16% of the sample physically and/or sexually abused their own children, an additional 45% demonstrated compromised parenting (i.e., they were not abusive, but their DID symptoms impaired their ability to fulfill parental duties), and 35% of patients from the combined abusive and compromised groups emotionally abused their children. According to Kluft (1987), the physically and sexually abusive parents all attributed the perpetration of abuse to a self-state that identified with the patient's childhood perpetrator(s).

Moving from victimization of one's children to victimization occurring in intimate adult relationships, Webermann, Brand, and Chasson (2014), as well as Myrick, Brand, and Putnam (2013) examined the prevalence and correlates of IPV among individuals with DDs. These studies found that DD patients evidence high rates of victimization throughout their adulthood. Both studies utilized data from a longitudinal, naturalistic, and prospective treatment outcome study of DD patients engaged in community outpatient treatment (Brand et al., 2013).

Webermann and colleagues (2014) assessed baseline (i.e., entrance into the study) clinician reports of patients' lifetime history of physically and emotionally abusive adult relationships and



found the following IPV rates: 29.6% of patients had experienced physical IPV in adulthood; 26.1% of the sample had experienced physical victimization, and 3.5% of the sample had been both a victim and perpetrator of physical IPV. Additionally, 58.8% of patients experienced emotional IPV in adulthood; 48.9% of the sample had experienced victimization, and 9.8% of the sample had been both a victim and perpetrator of emotional IPV.

Myrick and colleagues (2013) studied the same sample as Webermann and colleagues (2014), but examined clinicians' reports of the patients' physically or emotionally abusive adult relationships in the past 6 months at three study follow-up points, with data collected over a total of 30 months. The two studies both explored the prevalence of IPV within a DD patient population, but differed in that Webermann and colleagues (2014) explored adult lifetime IPV prevalence and correlates, while Myrick and colleagues (2013) examined how IPV rates changed throughout the course of DD treatment as well as the impact of victimization on treatment outcomes. Myrick and colleagues (2013) found that IPV was only perpetrated by those who also experienced adult victimization (henceforth called *victim-perpetrators*). Depending on which time frame was measured, 4.1-7.1% of patients had recently been in physically abusive relationships, and 0.5-1.4% of the sample were victim-perpetrators of physical IPV; in addition, 29-36% of patients had recently been in emotionally abusive relationships, with 5.51-9.88% of the sample being victim-perpetrators.

Notably, Myrick et al. (2013) and Webermann et al. (2014), along with all other studies on violent behavior and relationships in DID patients (e.g., Kluft, 1987; Loewenstein & Putnam, 1990; Putnam et al., 1986; Ross & Norton, 1989), assessed IPV through clinician reports. None have obtained self-report data from DD patients. This contrasts from research on samples of violent offenders examining the link between their CM history and dissociative symptoms (e.g.,

Becker-Blease & Freyd, 2007; Dutton, 1995; Ellason & Ross, 1997; Hulnick, 1997; Leibowitz, 2007; Lewis et al., 1997; Ross, 2008; Simoneti et al., 2000) in which IPV victimization and perpetration were assessed through participants' self-reports, including IPV typology, frequency, and severity.

### **Assessing Intimate Partner Violence among Individuals with Dissociative Disorders**

Given the almost ubiquitous experience of CM among DD patients, these patients' varied and severe dissociative symptoms, and the high prevalence of violent and homicidal self-states and behavior, it would follow that DD patients, and especially DID patients, would evidence high rates of IPV victimization and perpetration. Additionally, the correlation between dissociative symptoms and IPV severity would suggest that IPV among DD patients would be frequent, severe, and involve multiple typologies (i.e., physical, sexual, emotional, and psychological). Yet, to the author's knowledge, there are only two published studies on IPV among DD patients (Myrick et al., 2013; Webermann et al., 2014), and no published studies that rely on IPV information based on patient self-report.

Studies on violent offenders have typically assessed IPV via self-report, usually through a measure such as Revised Conflict Tactics Scales (CTS2; Straus, Hamby, Boney-McCoy, Sugarman, 1996) or Abuse Perpetration Inventory (API; Lisak et al., 2000). However, using those measures with DD patients presents a challenge; asking questions about IPV and especially IPV perpetration may be triggering to DD patients, given their severe and complex posttrauma symptomology including depression, anxiety, and high rates of self-harm and suicidality (Brand, Classen, Lanius, et al., 2009, Foote, 2013; Johnson et al., 2006; Rodewald et al., 2011; Webermann et al., in press). These measures might cause distress and temporarily worsen

dissociation among patients with DDs, and could possibly create urges to engage in self-destructive behavior, which could be an attempt to regulate overwhelming negative emotions.

On the other hand, using self-report measures with DD patients might be vital to obtain accurate reports of victimization and perpetration in adult relationships. Past research of DD patients' abusive relationships has relied on the patient disclosing information to their clinician that is both socially and psychologically threatening to DD patients, and thus it is also possible that IPV perpetration among DD patients is underreported. The CTS2, API, and other self-report measures of abuse perpetration have been used in highly dissociative populations of violent offenders (Dutton, 1995; Simoneti et al., 2000; Becker-Blease & Freyd, 2007) without causing undue distress (C. Murphy, personal communication, November 23, 2013). The successful use of these measures in highly dissociative populations suggests that these measures could be tolerated by DD patients, especially if they are clearly presented as optional measures that participants can choose whether to complete, and also if patient participants are provided with appropriate support mechanisms (i.e., are currently receiving psychological treatment).

### **The Present Study**

Among survivors of childhood trauma who report experiencing dissociation, the presence of damaging psychological and emotional consequences may contribute to their later involvement in abusive relationships. Dissociative symptoms might contribute to violent relationships through the following mechanisms: emotional detachment from, and/or amnesia for, CM experiences; a fragmented and confused sense of self; a lack of adaptive coping skills; attachment to, and/or identification with, an abusive caregiver; and insecure attachment (figure 1). If dissociation is not severe, survivors of childhood trauma might be more able to reflect upon and process their childhood victimization experiences; retain some consistent control over, and

access to, their memories for CM; have an intact, non-fragmented sense of self which includes a childhood trauma narrative; experience psychological distress and discomfort with violence; and/or more consistently maintain empathy for others. If a CM survivor had impulses to perpetrate violence against others, in the absence of the defense mechanism of dissociation or antisocial personality features, it might be too psychologically painful to perpetrate.

Thus, the purposes of the present study are as follows: (1) examine the prevalence and typology of IPV among patients with DDs enrolled in a longitudinal educational intervention study through clinician reports; (2) examine the prevalence and typology of IPV, as well as violence-specific dissociative symptoms, among patients with DDs through patient self-reports; and (3) assess correlates of IPV and dissociative violence among DD patients, including childhood family dynamics and patient-reported trait dissociation.

The hypotheses of the present study are as follows: (1) in line with past research, clinicians will report emotional IPV as the most prevalent type of IPV among DD patients; (2) patients will also self-report emotional IPV as the most prevalent type of IPV; (3) patient-reported dissociative symptoms will accurately identify which DD patients have a history of clinician-reported emotional, physical, and sexual IPV; (4) patient-reported dissociative symptoms will be significantly correlated with patient-reported dissociative violence; and (5) DD patients with a history of clinician-reported emotional, physical, and sexual IPV will have significantly worse clinician-reported childhood family dynamics than DD patients without a history of IPV, including less familial predictability, lower familial warmth, and less childhood emotional support.

## Methods

### Participants

**Sample.** Clinician and patient participants were recruited through the TOP DD Network study, a longitudinal educational intervention study of patients with DDs who are diagnosed with either DID or DDNOS/OSDD. The current sample included 161 clinicians and 165 of their patients who completed the initial baseline measures, presented after the screen measures which verified study eligibility. Although patients and clinicians enrolled in the study together as a dyad, not every dyad completed their baseline measures.

**Study recruitment and eligibility.** Clinicians treating DD patients were invited to participate in TOP DD Network through their past involvement with TOP DD (Brand, Classen, Lanius, et al., 2009), their membership in trauma and dissociation-focused professional organizations, mental health listservs, and at professional conferences. The sample for the TOP DD Network study may have contained some of the same participants as the first TOP DD study, although the number of participants present in both samples cannot be determined. Study eligibility requirements for patients in the TOP DD Network study included a DD diagnosis (DID, DDNOS, or OSDD); being in treatment with their current clinician for at least three months prior to starting the study and continuing treatment through the study; reading English at an 8<sup>th</sup> grade level; committing approximately 2 ½ hours weekly to study activities; and being able to tolerate references to trauma, dissociation, and safety struggles.

All participants read and signed an informed consent prior to beginning the first survey. They were provided information about the IPV and dissociative violence utilized in the present study through the following prompt in the informed consent:

*Optional: There are two optional 25-minute surveys offered at weeks 20 and 24 that patients may opt to complete if they so choose. These optional surveys ask brief questions about traumas, attachment and violence. This information may be useful for therapists to know about and process with the patient, so these two surveys might be useful to complete when the client is with the therapist. However, these two surveys are optional, as is doing them together in a therapy session.*

**TOP DD Network program overview.** Over the course of one year, patients and clinicians watched weekly 5-15 minute psychoeducational and skills training videos and completed written reflection exercises as well as behavioral practice exercises. The focus of the program was to see whether a web-based intervention focusing on helping patients stay safe and better understand their symptoms was more effective for DD patients than solely utilizing individual therapy. Through a secure password-protected website, participants were asked to complete short feedback surveys each week about videos and accompanying exercises. In addition, through another secure survey website, patients completed longer surveys at baseline (entry into the study), at 6 and 12 months into the intervention, as well as 6 and 12 months following the conclusion of the intervention (18 and 24 months from baseline). At the conclusion of the video for week 24, patients were offered a survey titled “Optional Patient Survey” with the following prompt:

*At this point, there are some optional questionnaires that we would like to invite you to complete. This month’s questionnaire asks about conflicts you may have experienced in your recent adult romantic partnerships, including outcomes of the conflict, behaviors exhibited by you and your partner, and ways you negotiated the conflict. In addition, you will be asked about your current level of dissociation while taking the survey. All*

*information shared in this questionnaire will be kept confidential, and will not be linked to your name or any other identifying information. The purpose of the questionnaire is to gather information on how dissociative disorder patients navigate and experience adult romantic partnerships.*

The optional patient survey contained the IPV and dissociative violence measures utilized in the present study. The rationale of including the optional survey 24 weeks (or six months) into the program was that patients would be acclimated to the Network program content and its surveys, and better equipped to take a potentially emotionally difficult survey. Patients who passed week 24 in the program without taking the survey were emailed once with the same survey prompt as above and a link to the survey. Clinician measures, as well as patient-reported dissociative symptoms, were collected at baseline (i.e., the beginning of the study).

**Patient demographics.** Patient participants were majority female (89.6%), Caucasian (80.9%), middle-aged ( $M$  and mode age = 42), and highly-educated (61.3% had at least a college diploma). Patients primarily resided in the United States (54.1%), although the study recruited internationally, and participants also resided in Norway (17.5%), Canada (7.1%), Australia (6.0%), and the United Kingdom (4.9%), among others. About half of participants (45.9%) were either in a dating or married relationship, 18.6% were divorced or separated, and 35.5% self-identified as currently being single and/or never being involved in a committed relationship. Patients were primarily diagnosed with DID (71.4%).

**Clinician demographics.** Clinicians primarily identified their discipline as psychology or psychiatry (53.1%) or social work (20%). About half described their theoretical orientation or primary technique modality as psychodynamic (45.1%), a handful described themselves as either cognitive behavioral (13.1%) or humanistic/experiential (11.4%), and a quarter (25.1%) self-

described as “other,” which included Eye Movement Desensitization and Reprocessing (EMDR) and eclectic, among others. Clinicians were primarily female (82.9%) and Caucasian (92.6%). Most reported many years of experience as therapists (*Median* = 15), as well as in treating trauma (*Median* = 13), and dissociation (*Median* = 8). Clinicians primarily worked in private practice (77.1%), an outpatient clinic or hospital (27.4%), or an inpatient clinic or hospital (4%).

**Treatment characteristics.** According to clinicians, the majority of patients (68.6%) had been in treatment with them for five years or less, with 21.7% in treatment with them for one year only. Clinicians also reported that about half of patients (52.6%) had been diagnosed with a DD for less than five years, with 14.9% having been diagnosed within a year. In line with past research on the frequency of misdiagnosis of patients with DDs (e.g., Boon & Draijer, 1993; Putnam et al., 1986), more than half (57.1%) of patients had spent over 5 years in the mental health care system, suggesting that many were initially misdiagnosed and received inappropriate or inadequate treatment, as expert guidelines for the treatment of complex DDs recommend specialized and staged dissociation-focused treatment (International Society for the Study of Trauma and Dissociation, 2011).

## **Patient Measures**

**Relationship violence perpetration and victimization.** Perpetration and victimization within adult romantic relationships were assessed at week 24 through the Revised Conflict Tactics Scale Short Form (CTS2S; Straus & Douglas, 2004). The CTS2S is a 20-item, shortened version of the full 78-item Revised Conflicts Tactics Scale (CTS2; Straus, Hamby, Boney-McCoy, & Sugarman 1996). It has a 7-point scale assessing how often an episode of perpetration or victimization happened in the past year (ranging from this has never happened [0] to more than 20 times [6], and not in the past year but has happened [7]). Subscales include physical



aggression (physical IPV), psychological aggression (emotional IPV), sexual coercion (sexual IPV), and injury, and each assessed minor and severe types of IPV. Each item has a version that assesses perpetration (e.g., *I yelled at my partner*) and a version that assesses experiencing victimization (e.g., *my partner yelled at me*).

Emotional IPV was defined as either *insulting, shouting, swearing, or yelling* (minor) or *destroying belongings and threatening physical violence* (severe); physical IPV was defined as *pushing, shoving, or slapping* (minor) or *punching, kicking, or beating-up* (severe); sexual IPV was defined as *insisting on sex and/or sex without a condom* (minor) or *using force (like hitting, holding down, or using a weapon) to make one's partner have sex* (severe); and injury was defined as a *sprain, bruise, small cut, or pain* (minor) or *seeing a doctor because of a fight* (severe).

Straus and Douglas (2004) demonstrated concurrent validity by comparing the CTS2S subscales to full CTS2, obtaining  $r = .77-.89$  for perpetration and  $r = .65-.94$  for victimization. The authors also demonstrated construct validity through statistically significant correlations to five risk factor variables measured by the CTS2S, which were comparable to correlations from the CTS2. Internal consistency for the CTS2S in the present sample was  $\alpha = .67$ . In line with scoring suggestions from Straus and Douglas (2004), the measure was scored dichotomously into categorical variables that indicated the presence or absence of each IPV category, which included each type of IPV (physical, sexual, emotional, or injury) at both severity levels (minor and severe) and encompassing both possible IPV roles (victim or perpetrator).

**Dissociative violence.** Peritraumatic dissociation occurring during an aggressive episode with a romantic partner was assessed at week 24 through the Dissociative Violence Questionnaire (DVQ; Simoneti et al., 2000). The DVQ is a 9-item, 6-point scale of how often

dissociative experiences occur in the context of partner aggression (ranging from this has never happened to more than 20 times). The following dissociative symptoms are assessed: presence of violent dissociative self-states; depersonalization, described as *feeling yourself from a distance aggressing* and/or *feeling you were not real*; derealization, described as *feeling the other person was unreal*; dissociative callousness, described as *being unable to show sympathy for your partner's pain, no matter how hard you tried*; amnesia for violent episodes; and violence-related flooding/flashbacks.

The DVQ was adapted from the Dissociative Violence Interview (Simoneti et al., 2000) to a questionnaire format (C. Murphy, personal communication, November 23, 2013). Mantakos (2008) demonstrated internal consistency of  $\alpha = .78$ , and criterion, convergent, and discriminant validity for the DVQ. The measure was scored dichotomously into categorical variables indicating the presence or absence of any dissociative violence as well as each particular type of dissociative violence. Internal consistency for the DVQ in the present sample was  $\alpha = .82$ .

**Trait dissociation.** Trait dissociation was measured at baseline by the Dissociative Experiences Scale-II (DES; Carlson & Putnam, 1993). DES is a 28-item, 10-point scale (ranging from 0% to 100% of the time) where the participant indicates what percentage of the time a particular dissociative experience occurred within the past month. An example item is as follows: *Some people find that sometimes they are listening to someone talk and they suddenly realize that they did not hear part or all of what was said.* A meta-analysis by van Ijzendoorn and Schuengel (1996) demonstrated test-retest reliability of .78-.93,  $\alpha = .93$ , and convergent validity of  $r = .67$ . The measure was scored by adding the item frequency values and dividing by the total number of items, yielding an average summary score for each participant. Internal consistency for the DES in the present sample was  $\alpha = .96$ .

## **Clinician Measures**

**Childhood family dynamics.** Childhood family dynamics were assessed via a clinical data form clinicians completed at the study baseline, which was adapted from a survey by Zittel Conklin and Westen (2005). The stability of the family environment was rated from on a Likert scale from 1-5, with 1 being chaotic and 5 being predictable/consistent; degree of family warmth and nurturing was rated from 1-5, with 1 being cold/hostile and 5 being warm/nurturing; and availability of support system in childhood beyond parents was rated from 1-5, with 1 being never, 3 being often, and 5 being almost always. Likert scale values were used to calculate group means depending on whether or not the patient had an IPV history.

**Intimate partner violence.** Clinician reports on patients' physical, emotional, and sexual IPV victimization and perpetration was assessed at baseline through their response to the following question: "Has the patient been in a (physically, emotionally, or sexually) abusive relationship **as an adult**?" If the clinician responds yes to any question, they will be asked whether the patient was the victim, perpetrator, or both (e.g., victim-perpetrators). In contrast to patient IPV self-report measure (via the CTS2S), IPV was not behaviorally defined within the clinician IPV measure. The measure was scored dichotomously into categorical variables that indicated the presence or absence of each type of IPV.

## **Analyses**

Discriminant function analysis (DFA), independent samples *t*-tests, bivariate correlations, and chi-square tests of association were used in the present study. The small sample size for the CTS2S ( $N = 12$ ) precluded analyzing this data, given its low statistical power to detect meaningful group differences among those who had or had not experienced self-reported IPV.

As such, descriptive information is provided on CTS2S data, while therapist IPV reports ( $N = 161$ ) were utilized to answer IPV-related questions.

First, DFA classified patients into those who experienced clinician-reported sexual, physical, and emotional IPV based on patient-reported dissociative symptoms (via the DES). DFA was utilized in lieu of other approaches, such as logistic regression, given the parsimony of the one-predictor models, the power of DFA to detect statistical effects, and the large sample size requirement of logistic regression. All data analytic assumptions of DFA were met. Second,  $t$ -tests were used to assess whether there were significant mean differences in a patient's clinician-reported childhood family dynamics depending on whether or not the patient had experienced clinician-reported IPV. Family dynamics were measured via an ordinal Likert scale in which mean group differences could be examined; regression approaches to ordinal data (e.g., ordinal regression and ordered logistic regression) were not used because they would have required larger sample sizes. All data analytic assumptions of independent samples  $t$ -tests were met. Third, bivariate correlations assessed the relationship between patient-reported dissociative symptoms (via the DES) and patient-reported dissociative violence (via the DVQ). Correlation analyses were used for exploratory analyses, rather than DFA, given the small sample size for the DVQ ( $N = 11$ ). All data analytic assumptions for bivariate correlations were met. Fourth, chi-square tests of association examined whether patient gender was associated with IPV.

To assess the reliability of findings, bootstrapping and split-sample validation were used post-hoc for statistically significant models. Bootstrapping was utilized in the  $t$ -test and correlation models, while split-sample validation was used for DFA models. The analyses were considered exploratory, and as such the  $p < .05$  significance level was utilized.

## Results

### Clinician Reports of Intimate Partner Violence

**Descriptive statistics.** Clinicians reported that 64% of patients ( $N = 103$ ) had a history of an emotionally abusive relationship in adulthood: 52.8% were victims and 11.8% were victim-perpetrators. Additionally, they reported that 38.5% of patients ( $N = 62$ ) had a history of a sexually abusive relationship in adulthood: 36.6% were victims and 1.9% were victim-perpetrators. Lastly, clinicians reported that 30.4% of patients ( $N = 49$ ) had a history of a physically abusive relationship in adulthood: 25.5% were victims, 0.62% were perpetrators, and 4.35% were victim-perpetrators.

**Discriminant function analyses: Dissociative symptoms and clinician reports of intimate partner violence.** Given the small number of perpetrators and victim-perpetrators of IPV, victims, perpetrators, and victim-perpetrators were collapsed into one IPV group, and were compared to those who had no history of IPV. As such, the following should be interpreted as indicating a history of an abusive adult relationship, rather than an indication of IPV victimization or perpetration. Additionally, only clinician reports of IPV were utilized in IPV analyses because of the small sample size for patient IPV self-reports ( $N = 12$ ). Descriptive statistics for the DES are in Table 3.

The first IPV discriminant model using the DES to classify DD patients who experienced clinician-reported physical IPV was significant,  $X^2(1) = 13.99$ ,  $p < .001$ , canonical  $r = .29$ , and was replicated through split-sample validation (Table 4). The second IPV discriminant model, utilizing the DES to classify those who experienced clinician-reported sexual IPV, was significant,  $X^2(1) = 5.52$ ,  $p < .05$ , canonical  $r = .19$ , although it did not replicate via split-sample validation. The sample size for the DFAs was 157 patients.

The DFAs were rerun removing the male participants ( $N = 16$ ) to yield a female-only sample of  $N = 141$  to examine gender as a confounding variable (Table 4). The first discriminant model using the DES to classify physical IPV history in the all-female sample was significant,  $X^2(1) = 13.71, p < .001$ , canonical  $r = .31$ , but in contrast to the discriminant model with both genders, the female only DFA did not replicate with split-sample validation. The second discriminant model using the DES to classify sexual IPV history was significant in the all-female sample,  $X^2(1) = 4.15, p < .05$ , canonical  $r = .17$ , although it did not replicate via split-sample validation. No differences in dissociative symptoms (Table 7) or IPV (Table 8) were found based on patient gender.

Another DFA was run with the DES, patient gender, and an interaction term for DES and gender, to examine the interaction of gender and dissociation in classifying DD patients who had experienced IPV (table 4). The discriminant model classifying physical IPV was significant,  $X^2(3) = 15.50, p < .001$ , canonical  $r = .31$ , although did not replicate through split-sample validation. The follow-up univariate ANOVA for the interaction term was significant,  $F(1,155) = 6.88, p < .05$ . Simple effects were examined through comparing correlations between dissociation and physical IPV for males ( $r = .128$ ) and females ( $r = .307, p < .01$ ), which were not significantly different,  $z = .65, p = .52$ . The discriminant models classifying emotional and sexual IPV were also significant, but the univariate ANOVAs for the interaction terms were not significant, nor did the omnibus models replicate through split-sample validation.

The DFAs were also rerun removing the one patient who was only a perpetrator of physical IPV, and not also a victim. The results were the same, regardless of whether this participant was included or excluded. The first discriminant model with this person removed using the DES to classify physical IPV was significant,  $X^2(1) = 13.40, p < .001$ , canonical  $r =$

.29, and replicated via split-sample validation; while the second discriminant model with this person removed using the DES to classify sexual IPV history was significant,  $X^2(1) = 5.78$ ,  $p < .05$ , canonical  $r = .19$ , it did not replicate via split-sample validation.

**Independent samples *t*-tests: Childhood family dynamics and clinician reports of intimate partner violence.** Descriptive statistics for childhood family dynamics are in Table 3. The first set of *t*-tests indicated significantly lower clinician ratings of patients' childhood family predictability among patients with a history of adult physical IPV ( $M = 1.51$ ,  $SD = .82$ ) as compared to patients without a history of adult physical IPV ( $M = 1.88$ ,  $SD = 1.08$ ),  $t(119.28) = 2.35$ ,  $p < .05$ , Cohen's  $d = -.39$  (Table 5). This finding was replicated via bootstrapping. The second set of *t*-tests indicated significantly lower clinician ratings of patients' childhood family warmth among patients with a history of physical IPV ( $M = 1.41$ ,  $SD = .61$ ) as compared to patients without a history of adult physical IPV ( $M = 1.67$ ,  $SD = .74$ ),  $t(110.06) = 2.34$ ,  $p < .05$ , Cohen's  $d = -.38$ , as well as among patients with a history of emotional IPV ( $M = 1.49$ ,  $SD = .62$ ) as compared to patients without a history of adult emotional IPV ( $M = 1.78$ ,  $SD = .82$ ),  $t(94.85) = 2.35$ ,  $p < .05$ , Cohen's  $d = -.40$ . Both of these results were replicated via bootstrapping. The third set of *t*-tests indicated significantly lower clinician ratings of patients' childhood emotional supports among patients with a history of sexual IPV ( $M = 1.48$ ,  $SD = .57$ ) as compared to patients without a history of sexual IPV ( $M = 1.72$ ,  $SD = .62$ ),  $t(139.10) = 2.45$ ,  $p < .05$ , Cohen's  $d = -.40$ . Once again, these results were replicated via bootstrapping. The sample size for these *t*-tests was 161 patients.

The *t*-tests were rerun with the bottom 50<sup>th</sup> percentile of childhood family dynamic scores removed (i.e., participants rated 1 on the 1-5 scale), to yield a sample with childhood family stability, warmth, and support ratings above the mean (i.e., participants rated 2-5 on the 1-5

scale; Table 5). Within the top 50<sup>th</sup> percentile sample, the *t*-tests did not demonstrate significant differences in childhood family stability, warmth, and support among those with IPV as compared to those without IPV. The sample sizes for these *t*-tests were as follows: family stability *N* = 78, family warmth *N* = 76, and family support *N* = 90.

### **Patient Reports of Intimate Partner Violence**

**Descriptive statistics.** At this time in the ongoing data collection for the larger TOP DD Network study, a subsample of 12 DD patients have completed the CTS2S, which provided information on the prevalence, typology, and severity of IPV victimization and perpetration. One participant only partially completed the optional measures and completed the CTS2S but not the DVQ. All 12 participants reported a history of emotional IPV in adulthood, 7 reported a history of a physical IPV, and 8 reported a history of sexual IPV.

Minor emotional abuse was common in this sample. All 12 participants reported minor emotional victimization, and 11 reported perpetrating minor emotional abuse toward a partner. Five participants reported experiencing severe emotional abuse and three reported perpetrating severe emotional abuse.

Minor physical abuse was also common, although less so than emotional IPV, with seven participants reporting experiencing minor physical victimization and five participants reporting perpetrating minor physical abuse toward their partners. Severe physical abuse was reported to have occurred toward three participants and was reported as perpetrated by two participants. A minor conflict-related physical injury was reported to have occurred among six participants, while five participants reported causing a partner a minor conflict-related physical injury.



Minor sexual abuse was reported to have occurred toward eight participants, and was reported as perpetrated by two participants. Severe sexual victimization was reported by four participants, while one participant perpetrated severe sexual abuse.

### **Patient Reports of Dissociative Violence**

**Descriptive statistics.** A subsample of 11 DD patients completed the DVQ, which provided information on peritraumatic dissociative symptoms occurring while participants perpetrated IPV toward a partner. Seven participants reported experiencing dissociative symptoms while perpetrating abuse toward an intimate partner. Callousness was the most common type of dissociative violence and was reported by six participants. Depersonalization during violence perpetration was endorsed by five participants, as was flooding/flashbacks and derealization. Violent self-states were endorsed by four participants, and amnesia for violent episodes was reported by three participants.

**Bivariate correlations: Dissociative symptoms and dissociative violence.** Bivariate correlations assessed the relationship of the DES and the seven different types of dissociative violence measured by the DVQ (Table 6). The DES was significantly correlated with any dissociative violence ( $r = .73$ ), derealization ( $r = .61$ ), depersonalization ( $r = .66$ ), amnesia ( $r = .63$ ), and flooding ( $r = .64$ ), but not with dissociative self-states or callousness. Each correlational model was replicated through bootstrapping. The sample size for the correlations was 11.

## **Discussion**

### **IPV Prevalence Rates**

According to clinician reports, most DD patients experience adult victimization. This is supported by the adult IPV prevalence rates and multiple IPV typologies found within the present study and the first TOP DD study (e.g., Myrick et al., 2013; Webermann et al., 2014). IPV prevalence rates in the present study should be cautiously compared to those in the first TOP DD study, given that participants from the first TOP DD study were recruited for the TOP DD Network study, and thus the two samples may contain some of the same participants.

The present study's first hypothesis that emotional IPV would be the most frequent type of clinician-reported IPV was supported. In Webermann and colleagues' (2014) sample of 275 clinicians, similar rates of IPV were found in the present study: 64% emotional IPV in the present study as compared to 58.8%, and 30.4% physical IPV in the present study as compared to 29.6%. As sexual IPV was not assessed in the first TOP DD study, it cannot be compared to the present study. The rates of IPV among DD patients are comparable or higher than those found in the general population: 30.4% of the present DD patient sample report a lifetime history of adult physical IPV as compared to 25% of the general population (Centers for Disease Control and Prevention, 2011), while 64% of DD patients report a lifetime history of adult emotional IPV as compared to 48.8% of the general population (Centers for Disease Control and Prevention, 2011).

Although the subsample of patients who provided self-reports on IPV is too small to draw reliable conclusions, the findings suggest that patients self-reported high rates of emotional IPV (92-100%) and physical IPV (42-58%). The second hypothesis that emotional IPV would be the most common type of patient-reported IPV was partially supported, as all twelve participants in

the subsample reported emotional victimization, and 11 of 12 participants reported emotional perpetration. Nonetheless, the small subsample precludes drawing confident conclusions.

It is unclear whether patient self-reports of IPV are more accurate than clinician reports. Patients might be more apt to disclose information on IPV, which may be socially and psychologically threatening, within the confines of a secure online survey measure, rather than admitting to their therapists that they are being revictimized, or perpetrating abuse toward others similar to what they themselves have endured. Alternatively, the sample may have been self-selected to disproportionately include those with an IPV history, as the optional survey prompt indicated that participants would be asked about relationship conflicts.

### **Dissociation and IPV**

Within this clinical research sample of patients with DID and DDNOS/OSDD, trait dissociation (as measured by the DES) was able to accurately identify which patients had a history of physical IPV, partially supporting the third hypothesis that dissociative symptoms would predict patient IPV (Table 3). Although many DD patients report histories of childhood physical victimization, perhaps severe dissociative symptoms yield an emotional and physical disconnect which heightens their risk of physical IPV victimization, as well as enables them to perpetrate physical IPV toward others. The role of dissociation in predicting physical IPV echoes past work demonstrating a high prevalence of severe dissociation and elevated rates of DD diagnoses among perpetrators of physical IPV (e.g, Lewis et al. 1997; Egeland & Susman-Stillman, 1996; Kluft, 1987; Moskowitz, 2004a; Narang & Contreras, 2000; Simoneti et al., 2000).

However, within the all-female sample from which male participants ( $N = 16$ ) were removed, dissociation did not reliably predict any type of IPV (Table 4). In contrast, within the

all-gender sample, dissociative symptoms reliably predicted physical IPV. It is noteworthy that a small group of male participants appeared to account for the link between dissociative symptoms and physical IPV, and that this link was not present in the all-female sample. This suggests that dissociative symptom severity does not account for the link between dissociation and IPV, at least not in women, because male and female participants did not have significantly different dissociative symptoms (Table 7). Nor was there an association between patient gender and IPV (Table 8). Interestingly, dissociation and IPV were significantly correlated in the all-female sample but not the all-male sample. Past research on all-male interpersonally violent offender samples highlights the association of dissociative symptoms with IPV, although it is unclear how those findings generalize to the present small sample of males who are all victims of IPV as well as some males in this sample also perpetrating IPV. It is also possible that the loss of 16 male participants reduced the statistical power of the all-female sample, explaining the loss of statistical significance in the all-female sample.

The finding that dissociation did not reliably predict sexual IPV contrasts past work documenting high dissociation and DD diagnoses among sex offenders (e.g., Becker-Blease & Freyd, 2007; Ellason & Ross, 1999; Graham, 1993; Hulnick, 1997; Ross, 2008). These studies suggest that dissociation plays a role in enabling sexual IPV. It is possible that among patients who almost universally report severe and chronic childhood sexual victimization, additional mechanisms beyond dissociative symptoms would need to be present to heighten their risk for adult sexual victimization, as well as enable them to perpetrate sexual abuse toward others (e.g., Figure 1). These confounding factors could include substance abuse, emotion dysregulation, and insecure attachment, among others (e.g., Alexander, 2015; Chen & White, 2004; Dutton, 1995;

Gratz et al., 2009; Swanson et al., 1990). It follows that IPV perpetration rates were notably lower for sexual IPV (1.9%) than for physical (4.35%) and emotional (11.8%) IPV.

The fourth hypothesis that dissociative symptoms would be significantly correlated with dissociative violence was partially supported, as dissociative symptoms predicted dissociative violence including derealization, depersonalization, amnesia, and flashbacks/flooding during violence perpetration (Table 5). These findings suggest that while severe dissociation is linked to marked functional impairment and self-harm, dissociation is also relevant in interpersonal conflicts and within abusive adult relationships. Furthermore, the relevance of dissociation to IPV lends further credence to expert treatment guidelines on complex DDs (International Society for the Study of Trauma and Dissociation, 2011), which recommend addressing dissociation at the start of treatment in order to help patients establish personal and interpersonal safety.

### **Childhood Trauma and IPV**

The fifth hypothesis that DD patients with a history of IPV would also have a history of worse childhood family dynamics was partially supported (Table 5). Those with clinician-reported physical IPV had significantly less childhood family predictability as well as lower childhood family warmth than did those without IPV, according to their clinicians. Those who experienced clinician-reported emotional IPV also had lower childhood family warmth, and those who experienced clinician-reported sexual IPV had less childhood emotional support. These results suggest that childhood trauma and family instability are risk factors for IPV, in line with past research highlighting elevated rates of CM among interpersonally violent offenders (e.g., Becker-Blease & Freyd, 2007; Ellason & Ross, 1999; Lewis et al., 1997, Lisak et al., 1996; Simoneti et al., 2001; Swica et al., 1996).

When the bottom 50<sup>th</sup> percentile of childhood family dynamics scores were removed, the *t*-tests indicated no significant difference in childhood family stability, warmth, and support based on whether or not a DD patient experienced adult IPV. There was a floor effect of childhood family dynamics scores as the majority of participants had low ratings (Table 3). Among DD patients who had childhood family dynamics above the average in the sample (although still typically rated low), the link between childhood trauma and adult IPV disappeared. This provides further credence to the childhood trauma to adult IPV trajectory previously found in DD patients (e.g., Webermann et al., 2014). However, the small sample size of the *t*-tests ( $N = 76-90$ ) diminished their statistical power, and power analyses recommended sample sizes around  $N = 300$  to detect mean differences in this sample.

### **Limitations**

The present study has limitations inherent to the structure and sample of the TOP DD Network study. First, all patients in the present sample were in outpatient treatment for a minimum of three months. Thus, their safety in relationships may not generalize to DD patients not in treatment. Second, the sample was homogenous in its demographics, in that participants were primarily female, middle-aged, Caucasian, and well educated, and half resided in the U.S. Nonetheless, the study was international, adding to its generalizability. The first TOP DD study sample, like the present one, is similar to DD clinical research populations (Brand, Classen, Lanius, et al., 2009). As such, findings can likely generalize to clinical DD populations.

Third, the small subsample of patient IPV self-reports precluded replicable analyses, and it remains to be seen whether DD patients self-reporting IPV will provide information about IPV that adds to that gleaned from clinician reports. Nonetheless, patients provided specificity and detail about IPV typology and severity which shed light on the still relatively unexplored

phenomenon of IPV within DD patients. Fourth, the present study's sample size ( $N = 165$  at most) limited its statistical power to detect meaningful effects and produce replicable analyses. This was especially true with subsamples, such as all-male patient samples ( $N = 16$ ) and patients providing self-reports of IPV and dissociative violence ( $N = 12$ ).

Fifth, while patient self-reports of IPV are helpful in understanding IPV among DD patients, it is also possible that DD patients may exhibit reporting inaccuracies and issues. This includes inaccurately perceiving internal events among dissociated self-states as external violent behavior (Putnam et al., 1986), as well as confusing current flashbacks with past violent childhood episodes (International Society for the Study of Trauma and Dissociation, 2011). Sixth, in line with Webermann and colleagues (2014), the present study could not parse out differences among victims versus victim-perpetrators, given the small number of DD patients who perpetrated IPV. However, it seems the majority of DD patients in abusive adult relationships are victims who do not perpetrate IPV. Thus, while DD patients evidence high rates of IPV risk factors and prevalence rates, it is helpful to conceptualize IPV as any involvement in an abusive adult relationship, as within this population, perpetration appears to go in tandem with victimization. Lastly, the present study did not examine or control for IPV risk factors found in the IPV literature, including but not limited to, substance abuse (e.g., Chen & White, 2004; Swanson, Holzer, Ganju, & Jono, 1990).

### **Future Research**

Patient self-reports about IPV and dissociative violence will continue to be collected through the duration of the TOP DD Network study. Patient self-reports of IPV may be useful in conjunction with clinician reports. In addition, given that the link between dissociative symptoms and IPV did not replicate in the all-female sample, it will be informative to rerun analyses once a

larger male subsample is obtained. Ideally, continued data collection will yield sample size with adequate statistical power to conduct meaningful and replicable analyses, beyond that afforded within exploratory analyses.

The present study measured peritraumatic dissociative symptoms occurring only during perpetration of IPV, rather than while being victimized by one's partner, given that this author was unaware of any measure on peritraumatic dissociation during IPV victimization experiences, much less one previously used in research and well-validated such as the DVQ. Given that IPV among DD patients most frequently encompass victimization, with a small number who perpetrate, additional information on the intersections of dissociative symptoms during IPV victimization experiences would be useful to better understand IPV among DD patients.

It is well-established that experiencing trauma begets exposure to future trauma, and there is a developmental trajectory between CM and IPV among the general population as well as among DD patients. As such, it is crucial to screen for IPV among DD patients, both for victimization as well as perpetration. However, questions about IPV, especially regarding IPV perpetration, may be threatening and destabilizing to trauma survivors. An IPV screening measure that is informed by an understanding of complex trauma and dissociation would serve to motivate more research in this area, as well as encourage clinicians to more readily assess the safety of their patients' relationships. This measure could begin to be conceptualized through utilizing the knowledge of both expert DD clinicians as well as DD patients themselves.

### **Implications**

The present study is novel in its examination of IPV in DD patients and in assessing self-reported IPV in DD patients via the CTS2S, a well-validated "gold standard" measure of IPV victimization and perpetration. The present study is also the first known study to assess DD



patients' retrospective self-reported dissociative symptoms occurring as they perpetrated violence toward their partner, via the DVQ. This study is one of a handful examining IPV prevalence specifically within a DD clinical patient population. It both echoes and builds on the findings of the extant literature on the intersections of dissociation and interpersonal violence.

The larger picture of IPV research points to a need to shift the focus to prevention of IPV. In general, IPV prevention lies in identifying risk factors for IPV before it starts, which include examining correlates and mechanisms of IPV perpetration, as well as early risk factors that developmentally precede involvement in abusive adult relationships (e.g., Figure 1). Identifying risk factors for IPV perpetration is essential as perpetrators tend to commit multiple types of offenses against their partners and often victimize numerous others (Lisak & Miller, 2002; Rand & Saltzman, 2003). Preventing one individual from perpetrating IPV may result in a larger net reduction in IPV than solely focusing on identifying risk factors for individuals being victimized. While the present study did not examine correlates of IPV perpetration per se, the merging of IPV victims with victim-perpetrators allowed for an examination of what factors are relevant for individuals who are both victims as well as perpetrators of IPV.

## **Conclusion**

Individuals with complex DDs are survivors of severe and chronic childhood abuse, typically perpetrated by caregivers upon whom they depend on for support and survival (Brand, Classen, Lanius, et al., 2009; Freyd, 1996). As a result, these individuals are inhibited in learning the skills crucial for healthy relationships, such as emotion regulation, conflict resolution, self-worth, and boundary management. Beyond that, those with complex DDs experience debilitating psychological issues which lead to marked functional impairment including severe dissociation, high rates of comorbid PTSD, depression, and substance abuse, and staggeringly high rates of

self-harm (e.g., Brand, Classen, Lanius, et al., 2009; Dalenberg et al., 2012; Foote, 2013; Foote, Smolin, Neft, & Lipschitz, 2008; Webermann et al., in press). Examining IPV among DD patients is critical given that severe dissociation and childhood maltreatment are demonstrated risk factors for IPV; preliminary research indicates DD patients potentially exhibit high rates of violent ideation and behavior; and DD patients overwhelmingly report struggles around safety and relationships (e.g., Loewenstein & Putnam, 1990; Myrick et al., 2013; Putnam et al., 1986; Ross & Norton, 1989; Webermann et al., 2014).

Survivors of CM, including DD patients, are an important population in which to study IPV, most notably for the purposes of intervening and preventing further trauma among trauma survivors. DD patients' ubiquitous histories of severe and chronic childhood victimization, as well as elevated dissociative symptoms and comorbid diagnoses, allow for a better understanding of how childhood trauma and psychological issues contribute to IPV. In many ways, researchers, clinicians, and the general public continue to be eluded by the dual questions of how individuals can perpetrate abuse toward a partner they purport to care for, as well as how individuals endure years of severe abuse from their partners. Studying IPV within a specialized population who evidence multiple risk factors for IPV might offer further insights into what mechanisms enable interpersonal violence to continue at such high rates across the lifespan.

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**Appendix B: Measures****Sample items from THE CTS2S SHORT FORM by Murray A. Straus  
© 2003, 2004 Western Psychological Services**

- 3. I insulted or swore or shouted or yelled at my partner
- 4. My partner insulted or swore or shouted or yelled at me

---

- 5. I had a sprain, bruise, or small cut, or felt pain the next day because of a fight with my partner
- 6. My partner had a sprain, bruise, or small cut or felt pain the next day because of a fight with me

---

- 9. I pushed, shoved, or slapped my partner
- 10. My partner pushed, shoved, or slapped me

---

- 13. I destroyed something belonging to my partner or threatened to hit my partner
- 14. My partner destroyed something belonging to me or threatened to hit me

---

- 19. I insisted on sex when my partner did not want to or insisted on sex without a condom (but did not use physical force)
- 20. My partner insisted on sex when I did not want to or insisted on sex without a condom (but did not use physical force)

**DISSOCIATIVE VIOLENCE QUESTIONNAIRE by Christopher Murphy**

© Christopher Murphy, used with permission from author

How often have any of the following happened over the last year, while you were being physically aggressive with a partner?

- (1) *Once*      (3) *3-5 times*      (5) *11-20 times*      (7) *this has never happened*  
 (2) *Twice*      (4) *6-10 times*      (6) *more than 20 times*

**While you were being aggressive...**

Once   Twice   3-5   6-10   11-20   20+

Never

1. You felt as if someone else was being physically aggressive with your partner and not you (DID)
2. You felt as if the other person was not real (Derealization)
3. You felt that you could see yourself from a distance aggressing against this individual (Depersonalization)
4. You felt as if you were not real (Depersonalization)
5. You felt that you could not show sympathy for your partner's pain, no matter how hard you tried.
6. You were accused of being violent with your partner in ways you have only seen in a dream.  
Amnesia
7. You were told that you were violent with a partner, but don't remember this happening.  
Amnesia
8. You had blackouts during violent episodes with a partner, not caused by your drinking or drug use.  
Amnesia
9. You had flashbacks of violence, that you experienced in the past, while you were being physically aggressive with a partner (by "flashbacks" we mean any memories or thoughts, usually vivid images, that might come into your head quickly) (Flooding/flashbacks)

**Sample items from DISSOCIATIVE EXPERIENCES SCALE by Eve Bernstein Carlson  
and Frank W. Putnam**

**DIRECTIONS**

This questionnaire consists of twenty-eight questions about experiences that you may have in your daily life **within the last month**. We are interested in how often you have these experiences. It is important, however, that your answers show how often these experiences happen to you when you are not under the influence of alcohol or drugs.

To answer the questions, please determine to what degree the experience described in the question applies to you and circle the number to show what percentage of the time you have the experience.

1. Some people have the experience of driving or riding in a car or bus or subway and suddenly realizing that they don't remember what has happened during all or part of the trip. Circle a number to show what percentage of the time this happened to you within the last month.
2. Some people have the experience of finding themselves in a place and having no idea how they got there. Circle a number to show what percentage of the time this happened to you within the last month.
3. Some people have the experience of finding themselves dressed in clothes that they don't remember putting on. Circle a number to show what percentage of the time this happened to you within the last month.
4. Some people have the experience of finding new things among their belongings that they do not remember buying. Circle a number to show what percentage of the time this happened to you within the last month.
5. Some people sometimes find that they are approached by people that they do not know who call them by another name or insist that they have met them before. Circle a number to show what percentage of the time this happened to you within the last month.



**Appendix C: Study Protocol Documents**

October 7, 2014

To: Bethany Brand  
Dept. of Psychology  
Modifications to TL IRB project 14-A091

Office of Sponsored Programs  
& Research

Towson University  
9000 York Road  
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T: 410 704-2236

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Dear Dr. Brand,

Thank you for informing the Towson IRB of your modifications to project 14-A091 "Treatment of Patients with Dissociative Disorders (TOP DD) Network Study".

The Towson University Institutional Review Board for the Protection of Human Participants has reviewed and approved your modification for this project. However, this modification approval does not change the expiration date of the original approval, which will need to be renewed one year from the date of approval if the research is ongoing.

If any other modifications are made to this project, or if any new risks are discovered, please inform the Board immediately.

Should you have any questions, please do not hesitate to contact me at 410 704 2236.

Sincerely,

A handwritten signature in blue ink, appearing to read "V. Spears", written over a horizontal line.

V. Denise Spears, MPA  
Compliance Administrator, On Behalf of Towson University Institutional Review  
Board for the Protection of Human Participants

CC:

File

**Treatment of Patients with Dissociative Disorders (TOP DD) Network Study**

**Principal investigator:** Dr. Bethany Brand  
**Phone Number:** (410) 704-3067

**email:** bbrand@towson.edu  
**email:** TOPDD@towson.edu

**Consent Form for Patients and Therapists**

You are invited to participate in the Treatment of Patients with Dissociative Disorders (TOP DD) Network study. Participation in the study affords access to a year-long web-based educational program (The TOP DD Network) for patients diagnosed with a dissociative disorder (DD) as well as their therapists. The TOP DD Network is designed to provide educational information that will help DD patients learn how to manage trauma-related symptoms and improve their safety. Both the DD patient and their therapist must agree to enroll together in the study so that patients have a clinician to help them if they experience safety problems or other difficulties.

*TOP DD Network access:* Eligible study participants will be given an access code that will allow them to sign in to the secure TOP DD Network website. The TOP DD Network site will provide participants with access to educational videos, written exercises, and practice exercises. There will be no charge to participants for accessing these materials, which have been designed by the TOP DD team specifically to help dissociative patients learn how to improve their safety and enhance their ability to manage complex trauma related symptoms.

*Participation eligibility:*

- The Patient must be 1) over the age of 18 and 2) meet DSM-IV-TR or DSM-5 criteria for one of the following Dissociative Disorders: Dissociative Disorder Not Otherwise Specified (DDNOS; DSM-IV-TR), Other Specified Dissociative Disorder (OSDD; DSM-5), or Dissociative Identity Disorder (DID; DSM-IV-TR or DSM-5)
- The Patient must be able to tolerate non-detailed references to: Childhood and adult trauma; safety struggles and underlying reasons for these struggles; dissociation; and occasional brief discussions of “parts of self”, even if this term does not apply to them
- The Patient must be able to watch videos and do written reflections and experiential exercises without being at risk for becoming highly overwhelmed
- The Patient-Therapist pair must have been actively engaged in treatment for at least three months
- Both Patient and Therapist must have reliable high speed access to the Internet (and if using a phone for access, have a data plan that can accommodate heavy data use)
- Both Patient and Therapist must be willing to share an existing email address or create and check a new address in order to receive links to study questionnaires and opt in (or out) to receiving activity reminders
- Both Patient and Therapist must be able to read English at the eighth grade level.

Patients and therapists will complete screening questionnaires to confirm eligibility and to assess initial symptoms. If the patient meets criteria to be enrolled, both the patient and therapist will be emailed a link to complete the initial surveys. Upon completion of these, they will be given access to the TOP DD Network website as described above.

*Participation Requirements:* To participate, patients need to commit to doing about 2 ½ hours of work per week for one year, including: Watching short educational videos (between 5-10 minutes most weeks),

completing weekly program and progress feedback and awareness-raising surveys, completing weekly writing exercises, and practicing recovery-focused skill exercises each day. (Note: The TOP DD team will not collect the patients' written reflection exercises. The written reflections are for the patient's own learning. We encourage patients to share what they are learning about themselves with their therapists.) In addition, patients need to commit to completing six survey questionnaires, each requiring between 2 and 2 and 1/4 hours. Completion of the (1) screening and (2) initial questionnaires will be required before beginning involvement with the TOP DD Network; additional questionnaires follow: (1) six months later (to assess patients' progress), (2) at the program's end at 12 months (to assess program effectiveness), and (3) six months and (4) one year after completing the program (to assess the durability of results). The questionnaires included in this study are essential to assessing how effective the TOP DD Network program is; they will also help us improve the TOP DD Network.

Therapists will need to commit to spending approximately 15-30 minutes each week for one year in order to participate. Therapists' weekly involvement will require watching the same weekly videos that patients watch, and providing feedback about the program and their patients' reactions to the program. Therapists are also strongly encouraged, but not required, to review patients' program work. Therapists must also be willing to commit to completing 6 research surveys requiring 1-1.5 hours each for completion: a screening survey, an initial survey upon admission to the study, and then one survey every six months thereafter (i.e., at 6, 12, 18, and 24 months) to gather their assessment of their patient's progress.

*Optional:* There are two optional 25-minute surveys offered at weeks 20 and 24 that patients may opt to complete if they so choose. These optional surveys ask brief questions about traumas, attachment and violence. This information may be useful for therapists to know about and process with the patient, so these two surveys might be useful to complete when the client is with the therapist. However, these two surveys are optional, as is doing them together in a therapy session. Finally, participants from Norway will be offered the opportunity to answer a few specific questions related to treatment they received in Norway.

*TOP DD Network Overview:* There are 5 videos that introduce participants to the TOP DD Network (including what participants will need to do each week) and provide information about trauma and its impact. After watching these 5 videos at their preferred pace, the participants will be given access to one educational video per week along with that week's written and practice exercises. (This constraint is intended to ensure that participants have the opportunity to get sufficient practice with the material presented.) Patients will also complete brief questions each week about their symptoms and progress in learning the skills taught in the videos. These weekly questions are intended to help DD patients learn to identify how they are doing regarding symptoms and in their learning and remembering to use healthy coping skills to actively manage these symptoms. There are 40 weekly videos (in addition to the 5 introduction videos); videos can be watched more than once, if desired, and written transcripts of the videos will also be available. The next week's material will become available once the prior week's tasks have been completed. The program is designed to enable participants to be able to take up to seven weeks off from the TOP DD Network program as needed (e.g., for holidays, illness).

The TOP DD team is not able to provide consultation, treatment, or feedback on any participant, nor will the team be able to provide information on any patient's progress, or return calls or emails seeking clinical advice. This limitation in our role is the reason we require patients to be in individual therapy: **Patients should discuss questions about the topics in the study, problems or issues in their lives, and/or psychiatric crises with their therapists.**

**Potential Benefits:** The TOP DD team believes that participants will learn ways to improve safety and manage emotions and symptoms in healthy ways. In addition, future dissociative patients and their therapists will benefit from the participants' feedback about the study's educational materials, as well as from the research publications that will be based on the study. We expect that therapist participants will learn more about helping DD patients in general as well as about their particular DD patient who is participating in the study. We hope that participating in this study as a team will also strengthen the working relationship between patients and their therapists, which research suggests is likely to improve the patient's progress in treatment.

**Potential Risks:** We have had individuals who are diagnosed with DID review the TOP DD Network materials and provide feedback about the best way to present the information. We took this step to ensure that the study is as helpful to participants as possible. While we do not anticipate significant difficulties for participants, this program asks participants to think about their feelings, reasons for being unsafe, symptoms, and related clinical issues. This may be uncomfortable for participants. We encourage clients to discuss their reactions with their therapists, particularly if they become upset by anything in the study. If any element of the study is distressing, we suggest patients take a break and do something that is safe and calming, and discuss their reaction with their therapist. We encourage clients to find a pace that feels most comfortable for them when working on the study's materials.

All information will remain strictly confidential. Therapists and patients will only know one another's answers if they choose to share these with one another. If you are a DD patient and prefer to not use your own name when you sign the consent form below, you can instead refer to yourself as your therapist's patient. For example, if your therapist's name is Jane Smith, you could type "Jane Smith's patient." Information obtained in this study will be recoded with a code number so that you cannot be identified. Although findings may be published, no names or identifying information will be used. This study has been approved by the Institutional Review Board at Towson University.

Your participation in this study is completely voluntary. You are free to choose not to participate, and if you do choose to participate, you are free to change your mind and withdraw from the study at any time. There is no penalty for leaving the study early. Should you choose to end your involvement with the study, please let us know right away by emailing us through the study's website or at TOPDD@towson.edu.

Patients, please note: The study's requirement that patients be in individual therapy means that discontinuing therapy with your current therapist would make you ineligible to continue in the study. You may be taken out of the study early if you or your therapist determines that staying in the study could be harmful for you or if your therapist stops participating in the study.

I have read this form and decided that I will participate in the study described above. Its general purpose, the tasks I will be involved in, and possible risks and benefits have been explained to me to my satisfaction.

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Date

**OR**

I am the patient of....

\_\_\_\_\_  
your therapist's first and last name

\_\_\_\_\_  
Date

If you have questions about this project or your rights as a research participant, or if you have a research related problem, please contact the principal investigator, Dr. Bethany Brand at (410)704-3067, or contact Dr. Debi Gartland, Chairperson of the Institutional Review Board for the Protection of Human Participants at Towson University at (410)704-4110.

**Appendix D: Tables**

Table 1: Prevalence (%) of Retrospectively Reported Childhood Maltreatment among Violent Offenders

Study	Sample characteristics	Physical abuse	Sexual abuse	Interparental DV
Becker-Blease & Freyd (2007)	<i>n</i> = 17 Males in outpatient sex offender treatment program	86%	65%	N/A
Ellason & Ross (1999)	<i>n</i> = 14 Males in inpatient treatment for paraphilias	79%	79%	N/A
Lewis et al. (1997)	<i>n</i> = 12 Death row inmates; 11 males and one female	91%	91%	25%
Lisak et al. (1996)	<i>n</i> = 120 Male college students; perpetrators of intimate partner violence	39%	9%	N/A
Simoneti et al. (2000)	<i>n</i> = 47 Males in a battering intervention program	26%	23%	60%
Swica et al. (1996)	<i>n</i> = 6 Incarcerated violent offenders	100%	100%	50%

Note: emotional/psychological abuse not reported in these studies.  
DV = domestic violence

Table 2: Dissociation and Dissociative Disorders among Interpersonally Violent Offenders

Study	Sample characteristics	Definition of DD	% with diagnosable DDs	% reporting dissociation for own CM	% reporting dissociation for violence toward others
Becker-Blease & Freyd (2007)	<i>n</i> = 17 Males in outpatient sex offender treatment program	DES-II $\geq$ 30	17%	N/A, but significantly associated with dissociation for abuse perpetration	53%
Egeland & Susman-Stillman (1996)	<i>n</i> = 24 Young low-income first time mothers; survivors of CM	DES-II $\geq$ 30	N/A, but <i>M</i> = 36, <i>SD</i> = 22	N/A, but significantly associated with perpetrating abuse toward own children	N/A
Ellason & Ross (1999)	<i>n</i> = 14 Males in inpatient treatment for paraphilias	Structured diagnostic interview	77%	N/A	N/A
Graham (1993)	<i>n</i> = 42 Male sex offenders in prison	DES-II $\geq$ 30	9.5%	N/A	N/A
Lewis et al. (1997)	<i>n</i> = 12 Death row inmates; 11 males and one female	Structured diagnostic interview	100%	66.6%	100%
Narang & Contreras (2000)	<i>n</i> = 223 College students; 71% female, 29% male	DES-II $\geq$ 30	10%	N/A	N/A
Simoneti et al. (2000)	<i>n</i> = 47 Males in a battering intervention program	DES-II $\geq$ 30	10.6%	N/A	2-33%; significantly associated with interparental DV

DES = Dissociative Experiences Scale

Table 3: Descriptive Statistics for Clinician Reported Childhood Family Dynamics and Dissociative Symptoms (DES)

Variable	Mean (SD)	Median	Mode	Skew	Range
Family predictability	1.76 (1.02)	1	1	1.52	1-5
Family warmth	1.59 (.71)	1	1	.99	1-4
Support system	1.63 (.61)	2	2	.42	1-3
DES	39.28 (20.42)	40	51.07	.11	3.21-86.07

Note: DD = dissociative disorders; DES = Dissociative Experiences Scale; DV = domestic violence; CM = childhood maltreatment

Table 4: Discriminant Function Analyses for Dissociative Symptoms (DES), Gender, and Clinician Reported Intimate Partner Violence

All participants ( $N = 157$ ): DES only				Female participants ( $N = 141$ ): DES only			All participants: DES + gender + DES*gender			
Intimate partner violence type	$X^2$	Canonical $r$	% IPV cases classified	$X^2$	Canonical $r$	% IPV cases classified	$X^2$	Canonical $r$	% IPV cases classified	DES*gender univariate $F$
Physical	13.99*^	.29	64.3%	13.71*	.31	66.7%	15.50*	.31	65%	6.88*
Emotional	.25	.04	48.4%	.09	.03	52.5%	8.33*	.23	68.2%	.03
Sexual	5.52*	.19	58%	4.15*	.17	60.3%	7.98*	.23	56.7%	2.04

\* =  $p < .05$ 

^ = model replicated through split-sample validation

Note: IPV = intimate partner violence; DES = Dissociative Experiences Scale



Table 5: Independent Samples *t*-Tests for Childhood Family Dynamics and Intimate Partner Violence (clinician reports)

Childhood family dynamic type	All participants ( <i>N</i> = 161)						Top 50 <sup>th</sup> percentile ( <i>N</i> = 76-90)					
	<i>t</i> ( <i>d</i> )	<i>M</i> range IPV Y- IPV N	<i>t</i> ( <i>d</i> )	<i>M</i> range IPV Y- IPV N	<i>t</i> ( <i>d</i> )	<i>M</i> range IPV Y- IPV N	<i>t</i> ( <i>d</i> )	<i>M</i> range IPV Y- IPV N	<i>t</i> ( <i>d</i> )	<i>M</i> range IPV Y- IPV N	<i>t</i> ( <i>d</i> )	<i>M</i> range IPV Y- IPV N
	Physical IPV		Emotional IPV		Sexual IPV		Physical IPV		Emotional IPV		Sexual IPV	
Family predictability	2.35*^ (-.39)	1.51-1.88	1.96 (-.33)	1.64-1.98	.36 (-.33)	1.73-1.79	.63 (-.16)	2.47-2.61	1.21 (-.28)	2.47-2.73	-.95 (.24)	2.73-2.50
Family warmth	2.34*^ (-.38)	1.41-1.67	2.35*^ (-.40)	1.49-1.78	1.29 (-.40)	1.50-1.65	.81 (-.20)	2.18-2.27	1.68 (-.40)	2.16-2.36	.12 (-.02)	2.24-2.25
Support system	1.05 (-.18)	1.55-1.66	1.51 (-.25)	1.57-1.72	2.45*^ (-.40)	1.48-1.72	-.05 (.03)	2.13-2.12	.31 (-.09)	2.11-2.14	1.10 (-.26)	2.07-2.15

\* =  $p < .05$ 

^ = model replicated through bootstrapping

Note: Family dynamics rated from 1-5 (1= chaotic, cold/hostile, and never → 5 = predictable/constant, warm/nurturing, and always).

Top 50<sup>th</sup> percentile = scoring 2-5

IPV = intimate partner violence

Table 6: Bivariate Correlations for Dissociative Symptoms (DES) and Dissociative Violence (DVQ)

Dissociative violence type	<i>r</i>
Dissociative violence dichotomy	.73*^
Dissociative self-states	.46
Derealization	.61*^
Depersonalization	.66*^
Callousness	.58
Amnesia	.63*^
Flashbacks/flooding	.64*^

*N* = 11 for all models

\* =  $p < .05$

^ = model replicated through bootstrapping

Table 7: Independent Samples *t*-Test for Dissociative Symptoms (DES) and Patient Gender

Female ( <i>N</i> = 141)		Male ( <i>N</i> = 16)		<i>t</i> ( <i>d</i> )	<i>M</i> range male-female
Mean (SD)/ median	Skewness	Mean (SD)/ median	Skewness		
39.55 (20.44)/39.64	1.54	36.79 (20.76)/43.57	-.31	.507 (.14)	36.79-39.56

Note: *t*-test not significant at  $p < .05$ .

Table 8: Chi-Square Tests of Association between Patient Gender and Clinician Reported Intimate Partner Violence

Female <i>N</i> = 145						Male <i>N</i> = 16		
IPV type	$X^2$	Odds ratio (female/male)	Female % IPV	Female % victim	Female % victim- perpetrator	Male % IPV	Male % victim	Male % victim- perpetrator
Sexual IPV	2.93	2.97	40.7%	95%	5%	18.8%	100%	0%
Physical IPV	1.15	2.01	31.7%	85%	13%*	18.8%	66.7%	33.3%
Emotional IPV	3.15	2.52	66.2%	84.4%	15.6%	43.8%	42.9%	57.1%

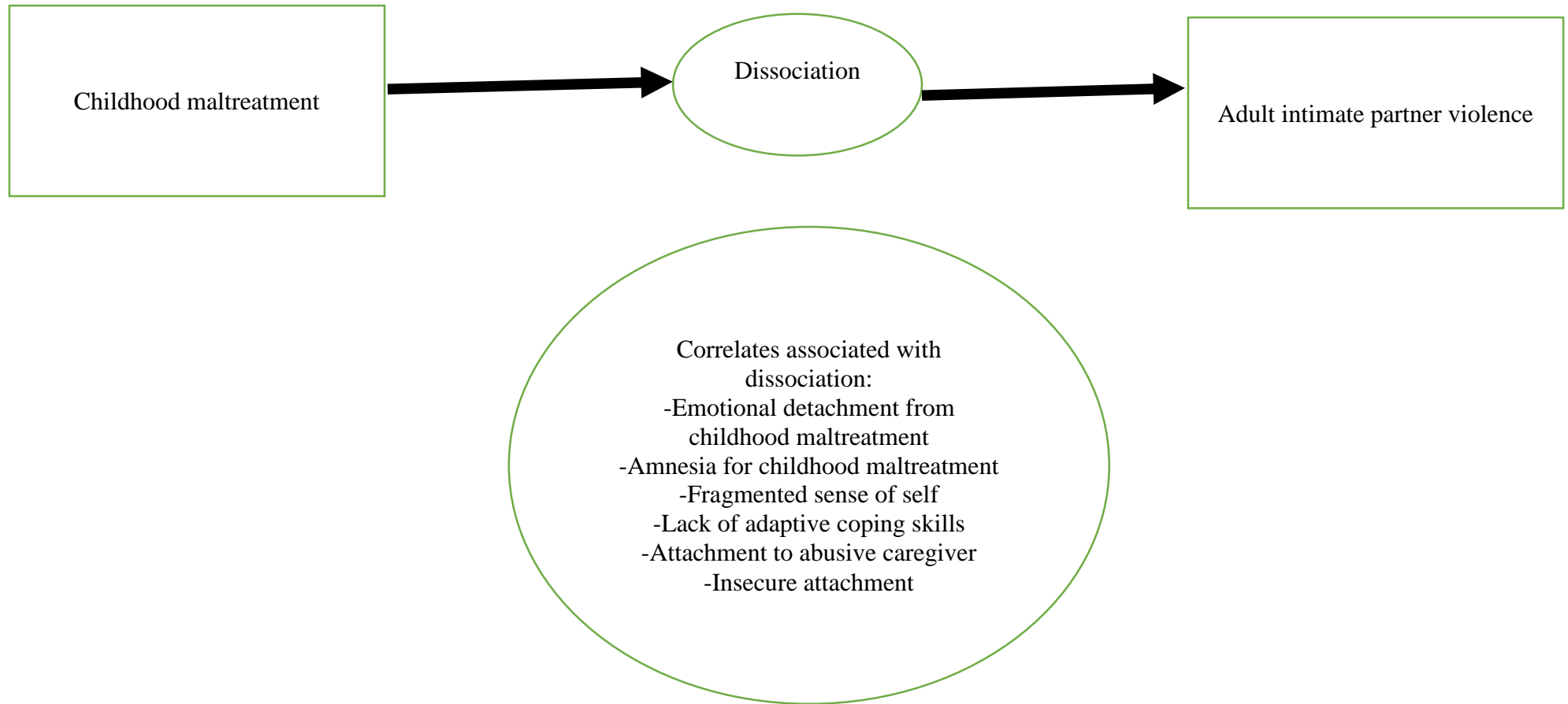
Note:  $X^2$  tests not significant at  $p < .05$ .

\* Perpetrator  $N = 1$

IPV = intimate partner violence

**Appendix E: Figures**

Figure 1: Mediation Model of Dissociation Explaining the Relationship between Childhood Maltreatment and Adult Intimate Partner Violence



**Appendix F: Curriculum Vita**

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**Professional publications:**

Hill, C. E., Satterwhite, D. B., Larrimore, M. L., Mann, A. R., Johnson, V. C., Simon, R. E., Simpson, A. C., & Knox, S. (2012). Attitudes about psychotherapy: A qualitative study of introductory psychology students who have never been in psychotherapy and the influence of attachment style. *Counselling and Psychotherapy Research*, 12(1), 13-24.

Webermann, A. R., & Brand, B. L. (in press). Dissociative disorders: Treatment. In A. Wenzel (Ed.), *SAGE encyclopedia of abnormal and clinical psychology*. Thousand Oaks, CA: SAGE Publications.

Webermann, A. R., Brand, B. L., & Chasson, G. S. (2014). Childhood maltreatment and intimate partner violence in dissociative disorder patients. *European Journal of Psychotraumatology*, 5.

Webermann, A. R., Myrick, A. C., Taylor, C. L., Chasson, G. S., & Brand, B. L. (in press). Dissociative, depressive, and PTSD severity as correlates of non-suicidal self-injury and suicidality in dissociative disorder patients. *Journal of Trauma and Dissociation*.

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