# Assessment and Treatment of Brain Injury in Women Impacted by Intimate Partner Violence and Post-Traumatic Stress Disorder



The Professional Counselor Volume 8, Issue 1, Pages 1–10 http://tpcjournal.nbcc.org © 2018 NBCC, Inc. and Affiliates doi:10.15241/tjs.8.1.1

Trish J. Smith, Courtney M. Holmes

Intimate partner violence (IPV) is a public health concern that affects millions of people. Physical violence is one type of IPV and has myriad consequences for survivors, including traumatic brain injury (TBI) and post-traumatic stress disorder (PTSD). It is estimated that as many as 23,000,000 women in the United States who have experienced IPV live with brain injury. This article overviews the intersection of TBI and PTSD as a result of IPV. Implications for counselors treating women impacted by IPV suggest counselors incorporate an initial screening for TBI and consider TBI- and PTSD-specific trauma-informed approaches within therapy to ensure best practices. A case study demonstrating the importance of the awareness of the potential for TBI in clients who experience IPV is included.

Keywords: intimate partner violence, traumatic brain injury, post-traumatic stress disorder, PTSD, public health

In 1981, the U.S. Congress declared October as Domestic Violence Awareness Month, marking a celebratory hallmark for advocates and survivors nationwide (National Resource Center on Domestic Violence, 2012). Since this time, similar social and legislative initiatives have increased overall awareness of gender inequality, thus influencing a decline in women's risk for intimate partner violence (IPV; Powers & Kaukinen, 2012). Recent initiatives, such as a national briefing focused on brain injury and domestic violence hosted by the Congressional Brain Injury Task Force, continue to call increased attention to the various intersections and implications of this national public health epidemic (Brain Injury Association of America, 2017). Unfortunately, despite various social advocacy movements, IPV remains an underrepresented problem in the United States (Chapman & Monk, 2015). As a result, IPV and related mental and physical health consequences continue to exist at alarmingly high rates (Chapman & Monk, 2015).

IPV refers to any act of physical or sexual violence, stalking, or psychological aggression by a current or previous intimate partner. An intimate partner is an individual with whom someone has close relations with, in which relations are characterized by the identity as a couple and emotional connectedness (Breiding, Basile, Smith, Black, & Mahendra, 2015). An intimate partner may include but is not limited to a spouse, boyfriend, girlfriend, or ongoing sexual partner (Breiding et al., 2015). Physical violence is the intentional use of force that can result in death, disability, injury, or harm and can include the threat of using violence (Breiding et al., 2015). Sexual, emotional, and verbal abuse are often perpetrated in conjunction with physical violence in relationships (Krebs, Breiding, Browne, & Warner, 2011).

Heterosexual and same-sex couples experience IPV at similar rates (Association of Women's Health, Obstetric and Neonatal Nurses, 2015). Researchers estimate that more than one in every three women and at least one in four men have experienced IPV (Sugg, 2015). These rates likely underestimate the true prevalence of IPV, given that populations with traditionally high incidences of abuse (e.g., poor, hospitalized, homeless, and incarcerated women) may not be included in survey samples (Scordato, 2013; Tramayne, 2012). Additionally, fear and shame often serve as a deterrent to reporting

Trish J. Smith is a resident in counseling and a senior client services advocate at Safe Harbor Shelter in Richmond, Virginia. Courtney M. Holmes, NCC, is an assistant professor at Virginia Commonwealth University. Correspondence can be addressed to Trish Smith, Safe Harbor Shelter, P.O. Box 17996, Richmond, VA 23226, trish@safeharborshelter.com.

abuse (Scordato, 2013). Although both men and women are victims of IPV, women are abused at a disproportionate rate (Association of Women's Health, Obstetric and Neonatal Nurses, 2015) and have a greater risk than men of acquiring injury as a result of physical violence (Scordato, 2013; Sillito, 2012). Data have shown that 2–12% of injuries among women brought into U.S. emergency departments are related to IPV (Goldin, Haag, & Trott, 2016), 35% of all homicides against women are IPV-related (Krebs et al., 2011), and approximately 22% of women have experienced physical IPV, averaging 7.1 incidences of violence across their lifespan (Sherrill, Bell, & Wyngarden, 2016). IPV is a pervasive relational problem that creates a myriad of complex mental and physical health issues for female survivors (Sugg, 2015). One health issue commonly experienced by female survivors of IPV is post-traumatic stress disorder (PTSD; Black et al., 2011).

#### PTSD and IPV

A Diagnostic and Statistical Manual of Mental Disorders (5th ed.; DSM-5; American Psychiatric Association, 2013) diagnosis of PTSD is based on the client's exposure to a dangerous or life-threatening stressor and consists of the following symptomology: intrusion of thoughts or re-experiencing of the event, including flashbacks; avoidance of experiences or thoughts related to the stressor; negative alterations in cognition and mood; and changes in reactivity, including hypervigilance or hyperarousal. According to Bourne, Mackay, and Holmes (2013), flashbacks are the hallmark symptom of PTSD and involve a process in which the individual dissociates and feels as though they are re-experiencing the traumatic event through involuntary, vivid, and emotional memories. Although PTSD symptoms may occur immediately after a traumatic event, symptoms may have a delayed onset in which the full range of symptoms can manifest even 6 months after the event, showing only partial symptom criteria in the preceding months (Utzon-Frank et al., 2014).

Experiencing IPV increases risk for developing PTSD (National Center on Domestic Violence, Trauma, and Mental Health, 2014). In a national sample of 9,000 women, 62% who experienced some form of IPV reported at least one PTSD symptom (Black et al., 2011). Women who experience IPV are almost three times as likely to meet criteria for PTSD when compared with those who have not had such experiences (Fedovskiy, Higgins, & Paranjape, 2008). Although PTSD is a common manifestation of IPV, another condition, traumatic brain injury (TBI), also is prevalent in survivors (Sherrill et al., 2016). The symptomology of TBI mirrors that of PTSD, rendering the clinical tasks of appropriate diagnosis and treatment planning especially difficult (McFadgion, 2013).

#### TBI and IPV

TBI is defined as a change in brain function caused by an external force (e.g., strike to the head or strangulation; Murray, Lundgren, Olson, & Hunnicutt, 2016). Symptoms include headaches, dizziness, fatigue, difficulty concentrating, irritability, and perceptual difficulties with noise and light (Zollman, 2016). Other symptoms can include problems with attention, memory, processing speed, decision making, and mood (Jeter et al., 2013). Professionals can use computerized tomography (CT) scans to find contusions, hematomas, diffuse axonal injury, and secondary brain injuries, which aid in the medical diagnosis of TBI (Currie et al., 2016). Although CT is widely used in assisting with the identification of TBI, a final diagnosis is most often made in a clinical interview with the patient, treating physician, and if feasible, those who observed the violent incident or responded to it (Zollman, 2016). Violence that causes TBI may or may not leave internal or external physical evidence of trauma (e.g., bruising, scarring); thus it is crucial that assessment and screening attempts take place beyond neuroimaging technology and are included as a part of a comprehensive evaluation (Joshi, Thomas, & Sorenson, 2012).

Researchers indicate that over 60% of women, with estimates as high as 96%, who experience IPV sustain injury to the face or head areas, including attempted strangulation (McFadgion, 2013;

Sherrill et al., 2016; St. Ivany & Schminkey, 2016). Acquired TBI through IPV can complicate the therapeutic treatment of women (Murray et al., 2016). Brain injury shares similar symptomology with PTSD, increasing likelihood for misdiagnosis, complications with care, and long-term brain damage (McFadgion, 2013). Additionally, TBI and PTSD are often comorbid diagnoses, and those who survive physical trauma and incur a TBI suffer negative mental health impacts such as depression, anxiety, and suicidal ideation (Smith, Mills, & Taliaferro, 2001).

PTSD and TBI have an extensive impact on brain functioning (Boals & Banks, 2012; Saar-Ashkenazy et al., 2016). Individuals with PTSD experience daily cognitive failures in memory, perception, and motor function (Boals & Banks, 2012; Saar-Ashkenazy et al., 2016). Other researchers have shown that PTSD negatively impacts brain functioning on multiple levels, including stimuli recognition, and overall cognitive functioning (Saar-Ashkenazy et al., 2016). Similarly, individuals with TBI may experience physical, sensory, cognitive, and social difficulties as a result of their brain injury (Brain Injury Association of Virginia, 2010). Given the overlapping symptoms of PTSD and TBI, and the overall impact on functioning, it is critical for counselors to consider these factors when diagnosing and treating women who have experienced IPV.

In sum, IPV is a widespread public health issue with a multitude of negative consequences related to human functioning. Incidences of TBI in women who have experienced IPV cannot be overlooked. A framework for mental health counselors that includes awareness of the overlapping symptoms between two likely outcomes of IPV and their manifestation is crucial for successful case conceptualization and treatment.

# **Counseling Implications**

PTSD and TBI have extensive impact on human functioning, and it is critical that counselors examine appropriate responses and considerations for therapeutic treatment of female survivors of physical violence resulting from IPV. Clinical considerations should be incorporated into initial screening, therapeutic approaches, and communication with clients.

## Screening and Assessment

McLeod, Hays, and Chang (2010) suggested that counselors universally screen clients for a current or past history of IPV. Based on the literature, survivors of IPV face various challenges when seeking services and either reporting or disclosing abuse, including: self-blame for the abuse; fear of the perpetrator; internalized shame; lack of acknowledgement of the level of danger; perception that community services are not helpful; lack of housing, child care, and transportation; access to money; and lack of educational opportunities (Fúgate, Landis, Riordan, Naureckas, & Engel, 2005; Lutenbacher, Cohen, & Mitzel, 2003; McLeod et al., 2010; Scordato, 2013). Minority populations experience additional challenges, including fear of prejudice and systemic oppression (Scordato, 2013). Thus, counselors carry the responsibility to broach screening with all clients. With an intentional screening for IPV, counselors are able to further identify TBI as a result of physical violence in IPV to ascertain medical and related concerns. Given the statistical probability that a woman who experienced physical IPV sustained past injury to the head or neck, initial screening is critical (Murray et al., 2016). The Pennsylvania Coalition Against Domestic Violence (PCADV; 2011) provides a guide based on a classic TBI screening called HELPS. The guide asks questions in the context of IPV, including if the person has ever been: (a) hit on the head, mouth, or other places on the face; (b) pushed so hard the head strikes a hard or firm surface; (c) shaken violently; (d) injured to the head or neck, including strangulation, choking, or suffocating that restricted breathing; and (e) nearly drowned, electrocuted,

or intentionally given something allergic. These questions serve as a guide in detecting if the survivor has acquired TBI; however, they should not be used in place of a medical assessment (PCADV, 2011).

The Brain Injury Association of America (2015) describes symptoms of TBI as including: headaches, dizziness, lack of awareness of surroundings, vomiting, lightheadedness, poor attention and concentration, fatigue, and ringing in the ears. Impairments involving functions related to memory, decision making, and processing speed may be indicators of brain injury (Jeter et al., 2013). Recognizing TBI allows for the appropriate response in treatment, including identifying necessary medical consultations and referrals.

# Therapeutic Approaches to IPV

After the brain is injured, a recovery process involving three stages is prompted, including: cell repair, functional cell plasticity, and neuroplasticity (Villamar, Santos Portilla, Fregni, & Zafonte, 2012). Zasler, Katz, Zafonte, and Arciniegas (2007) described neuroplasticity as the process in which spared healthy brain regions compensate for the loss of functioning in damaged regions. Kimberley, Samargia, Moore, Shakya, and Lang (2010) suggested that repetition of activities is required to induce neuroplasticity, or recovery of the brain.

Researchers have shown that certain techniques in talk therapy can aid in the recovery of the brain, serving to benefit both the treatment of PTSD as well as the alleviation of symptoms in TBI (Chard, Schumm, McIlvain, Bailey, & Parkinson, 2011). For example, Chard et al. (2011) compared two therapies: (a) cognitive processing therapy (CPT), a form of cognitive behavioral therapy effective in treating PTSD; and (b) an alternate version of CPT, CPT-cognitive only (CPT-C), which omits the writing and reading of one's trauma narrative and instead emphasizes cognitive challenging and rehearsal. Both approaches were applied to a sample of 42 male veterans who met criteria for PTSD, had history of TBI, and were compared across four groups based on severity and treatment approach (Chard et al., 2011). In addition to speech therapy two to three times a week and a psychoeducation group 23 hours a week, CPT-C individual sessions and group sessions were each held twice a week as a part of a residential treatment program (Chard et al., 2011). Chard et al. identified a significant main effect across PTSD and depression measures for both groups, indicating CPT-C as a plausible treatment for clients with TBI.

Another therapeutic approach includes CRATER therapy, which is an acronym that encompasses six targets for therapy: catastrophic reaction, regularization, alliance, triangulation, externalization, and resilience (Block & West, 2013). The first target, catastrophic reaction, is based on targeting the explosive reaction that is in response to overwhelming environmental stimuli; regularization is the therapist's approach to establishing a regular daily routine for the client (e.g., sleep—wake cycle, meal times); alliance is the relationship between the professional and survivor; triangulate is the relationship expanded beyond the client to include a family member or friend; externalize negates self-blame; and resilience promotes the use of effective coping skills (Block & West, 2013). The individual's family members and friends are specifically targeted in the approach to account for ecological validity and provide support. Block and West (2013) stated, "CRATER therapy targets the formation of a good working alliance, teaches the survivor to perform skills without cues from the provider and integrates both cognitive and therapy interventions" (p. 777). Overall, this theory infuses cognitive restructuring into individual psychotherapy and assists the client in developing effective coping strategies.

In addition to the implementation of specific therapeutic approaches in counseling, the counselor can incorporate management strategies to accommodate survivors' brain injury symptoms in counseling

sessions. For example, a client who takes longer to complete tasks and answer questions because of an impaired information processing speed can be accommodated by the counselor doing the following: (a) allowing extra time for responses, (b) presenting one thing at a time, and (c) not answering for them during the lapse in response time (BIAV, 2010). The PCADV (2011) also recommends speaking in a clear and literal sense as well as providing tasks in short increments. If memory is impaired, the counselor can make it a point to repeat information as necessary, encourage the use of external memory aids (e.g., journals, calendars), and give reminders and prompts to assist with recall (Block & West, 2013). In the case in which the client shows poor self-monitoring skills and lacks adherence to social rules or consistently dominates the dialogue in sessions, the counselor can provide feedback, encourage turntaking, and gently provide redirection of behavior (BIAV, 2010). Implementing techniques that involve feedback and redirection also can decrease chances of oversharing that might re-traumatize the survivor (Clark, Classen, Fourt, & Shetty, 2014). Utilizing compensatory strategies such as these can ensure the accessibility and efficacy of counseling sessions to survivors with TBI.

## Therapeutic Communication With IPV Clients

Aside from specific counseling approaches and management strategies, several considerations can be made by the counselor to ensure an informed response in communication and chosen interventions. Building a therapeutic relationship, including instilling hope for possible change, is especially useful with complex PTSD diagnoses (Marotta, 2000). Additionally, researchers suggest that receiving social support is a resiliency factor in trauma recovery (Shakespeare-Finch, Rees, & Armstrong, 2015; Zhou, Wu, Li, & Zhen, 2016). However, data suggest that women with brain injury, when compared with male counterparts, experience more negative alterations to social and play behavior, including more exclusion and rejection in social situations (Mychasiuk, Hehar, Farran, & Esser, 2014). Mychasiuk et al. (2014) indicated that group therapy or other social types of interventions related to social support building and safety planning may be contraindicated until these specific challenges can be addressed in individual counseling.

Counselors should be aware of the cyclical nature of abusive relationships that can result in multiple brain injuries over time (Murray et al., 2016). Additionally, counselors should understand complex PTSD, which is associated with prolonged exposure to severe trauma; alterations to affect and impulses, self-perception, interactions with others, and increased somatization; and medical problems (Pill, Day, & Mildred, 2017). Consideration of the potential impact that cumulative brain injuries and prolonged trauma have on health outcomes is critical for effective clinical intervention (Kwako et al., 2011), as myriad aspects of a woman's ability to identify and understand her situation may be negatively impacted. A critical skill for women in violent relationships includes the need to account for, and effectively assess, one's physical environment at the time of abuse. A client can take the following precautions to protect herself from future violence: (a) making herself a smaller target by curling up into a ball in a corner, (b) avoiding wearing scarves or necklaces that can be used in strangulation attempts, (c) guarding her head with her arms around each side of her head, and (d) hiding guns or knives (PCADV, 2011). Furthermore, it is imperative that the counselor actively assist in the safety planning process given that head injury and trauma often impair cognitive processes such as a person's ability to plan and organize (PCADV, 2011). Initiating the safety planning process as a psychoeducational component of treatment could serve to counter shame and self-blame for the survivor, ensuring that a trauma-informed approach and best practices are maintained (Clark et al., 2014).

## **Ethical Implications**

Client cases that include current or past IPV are often fraught with numerous ethical considerations (McLaughlin, 2017). Perhaps the most pervasive ethical issue is the responsibility of mandated

reporting. Counselors must be aware of the intricacies of such responsibility and understand the limits of reporting as it pertains to survivors of IPV (American Counseling Association, 2014). Clinicians should become skilled at assessing for violence in relationships so that reporting can occur if one of the following situations arise: abuse of children, older adults, or other vulnerable populations; duty to warn situations; or risk of suicide. The responsibility to report must be discussed with clients during the informed consent process and throughout treatment (American Counseling Association, 2014, B.1.d).

IPV presents additional complications for treatment providers. Researchers suggest that more than 50% of couples in therapy report at least one incident of physical aggression against their partner (O'Leary, Tintle, & Bromet, 2014). Despite this implication, counselors fail to adequately assess for violence or intervene when violence is present. Once a thorough assessment has taken place, clinicians can evaluate the most appropriate and safe course of treatment for each individual and the couple together. Treatment options include continued couples work (when appropriate), separate individual therapy, or group work that may include anger management or other behavioral-change strategies (Lawson, 2003).

Counselors working with survivors of IPV should expect to regularly determine how to "maximize benefit and minimize harm" for each client (McLaughlin, 2017, p. 45). Counselors may find themselves working with clients who want or need to stay in the relationship or those who want or need to leave the relationship. Each situation is complicated with a variety of personal factors such as level of violent threat and access to financial and other types of resources. Individual assessment in collaboration with the client to determine the best therapeutic strategy is necessary (McLaughlin, 2017).

Finally, counselors may hold overt or covert personal biases toward IPV clients and violence against women. Counselors should evaluate personal feelings toward both victims and perpetrators of IPV prior to working with them and throughout the course of treatment. McLeod et al. (2010) developed a competency checklist for counselors to assist in necessary self-reflection and self-evaluation of their level of competency when working with this population. Finally, counselors should understand the critical nature of supervision and consultation and seek it out when necessary (McLaughlin, 2017).

# Case Study

The following case study is a hypothetical case based loosely on the first author's experience as a counselor in a domestic violence shelter. The case and treatment description are meant to provide a general overview of how counselors might implement an overarching lens of screening and treatment when working with survivors of IPV.

A 48-year-old Caucasian woman sat across from her counselor, elated as she described the sense of relief she felt to finally receive counseling support during what she explained to be the worst time of her life. In disclosing several accounts of physical, sexual, and emotional abuse, she described times in which her ex-partner had blackened her eye, broken bones, and strangled her. Knowing the various causes of TBI in IPV, the counselor started a conversation about the possibility of brain injury. The client denied going to the emergency room to be assessed for injuries, a process that would have likely detected contusions or swelling of brain tissue. The absence of medical treatment was not surprising to the counselor, given the numerous barriers that often leave survivors of IPV without medical attention, including fear of further harm. Knowing this, the counselor was careful in her communication so as to not suggest blame or judgement for the client's decisions to not seek past medical assistance. The counselor proceeded to ask questions related to whether or not the client perceived any changes to physical or cognitive functioning in comparison to life before her abusive

relationship, with focus on memory, attention, and learning experiences. The client found it very difficult to answer these questions in detail, indicating that her memory was potentially impaired because of either PTSD or brain injury. A neutral, yet warm and understanding, therapeutic stance was critical for the counselor to keep the client engaged in the therapeutic process.

Following the detection of probable TBI, the counselor provided psychoeducation to promote awareness on the nature of the injury as well as referrals to various local and state resources. The counselor and client then discussed the client's experience of PTSD symptoms and how these symptoms could mirror the symptoms of brain injury. Education is a recommended strategy when working with clients with PTSD (Marotta, 2000). The counselor knew that helping the client to differentiate between the two would help her monitor and document symptoms for the journaling homework that would eventually be assigned to her. At this time, the counselor provided the client with a handout with a *t*-chart comparing PTSD and TBI symptoms, knowing that a concrete, visual representation might be a helpful accommodation. For her journaling homework, the counselor instructed the client to record the following: symptom type, duration, intensity, and any contextual details. This recording would benefit the client in multiple ways, including increasing personal awareness and attention to symptoms, indicating the necessity of additional referral sources, and providing a record for discussion with future medical professionals.

At the beginning of the next several sessions, the counselor followed up on the client's journaling homework. During these check-ins, the client reported times of forgetfulness, difficulty with attention, and problems staying organized and making decisions. One particular incident allowed the counselor and client to actively probe through differences between PTSD and TBI when the client reported a time in which she "zoned out" while running errands. They explored the event, discussing duration and contextual details. It was in this conversation that the client mentioned a glass item having fallen nearby and shattering loudly just moments before she "zoned out." From this detail, especially noting the infrequency of her zoning out day-to-day, the counselor discussed the likelihood of it being traumarelated, connecting it to the many nights of domestic disturbances with her abuser that ended in various household items being destroyed. On the other hand, the counselor associated her increased forgetfulness, headaches, and a distorted sense of smell with possible manifestations of brain injury. The counselor recommended that the client call the state's brain injury association to learn about medical providers who had extensive experience treating TBI.

Noting shattering glass as one of her triggers, the counselor and client discussed what she could do after perceiving this stimulus to reorient to the present. Grounding techniques such as deep breathing were discussed. To address forgetfulness, the counselor implemented compensatory strategies that included shorter responses and questions, utilization of the present time frame, and repetition of responses provided by the counselor. To encourage further assessment and treatment, the counselor followed up on the client's contact with experienced TBI medical professionals.

Clients may be involved in both individual and group counseling simultaneously. However, group counseling may be contraindicated for women who have experienced a TBI until social and relational challenges can be addressed in individual counseling (Mychasiuk et al., 2014). Therefore, before recommending entry into a counseling group, the counselor first assessed the client's day-to-day interactions with individuals and how her social network changed before and after sustaining TBI. This assessment allowed the counselor an opportunity to both gauge the appropriateness of group therapy and identify possible barriers to group that might be assisted with accommodation. With careful consideration and assessment, counselors can maximize the use of group therapeutic factors such as interpersonal learning, socializing techniques, and imitative behavior.

# Conclusion

IPV is a prevalent public health issue that impacts the development of a wide range of mental and physical health diagnoses, in which PTSD and TBI are two pervasive complications that often affect survivors of IPV. Recent initiatives, such as the national briefing hosted by the Congressional Brain Injury Task Force, are indicative of the work still needed to properly address this underrepresented national issue (Brain Injury Association of America, 2017). Counselors should understand the intersectionality of PTSD and TBI and how such experiences can complicate treatment. This article has provided several suggestions for counselors to improve their clinical practice to better accommodate survivors of IPV, including screening and assessment techniques, therapeutic approaches, and communication suggestions. Counselors should be aware of the need to adopt specific therapeutic approaches and strategies in counseling that compensate for cognitive impairments so as to avoid gaps in the delivery of services and adhere to best treatment practices. Counselors also are required to abide by ethical codes and guidelines and are urged to continually seek supervision and consultation when working with this population to ensure that the various aspects of this complicated category of violence are thoroughly considered.

Conflict of Interest and Funding Disclosure
The authors reported no conflict of interest
or funding contributions for the development
of this manuscript.

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