

Domestic Violence and Brain Injury

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Two scenarios

Carol found herself in a cycle of violence from the time she was a child. By adulthood, she had already experienced multiple beatings and hospitalisations. In the most recent attack, her husband beat her with a board, leaving her with permanent brain damage and a life-long disability. As a result of her injury, she now has frequent seizures, difficulty with balance, and is terrified to leave her home for fear of having a seizure or falling. In addition, she suffers from bi-polar disorder and takes lithium. We met Carol soon after she was hospitalised for lithium toxicity. Through working with us, we discovered Carol didn't have enough money for food, lithium, and insulin for her diabetes. On top of her financial troubles, she also suffers from short-term memory loss and could not keep track of how often she was taking her medications.

Megan's father was an abusive alcoholic, and when she was only six months old, he beat her head into a wall. It was a miracle she even survived the beating, however, it left her disabled for life. As a result of the beating, Megan is blind and has a severe seizure disorder. She also has significant behavioral issues and difficulty modulating her mood, resulting in violent mood swings. Though she is now in her forties, she will never be able to live on her own and is at the mercy of her community to take care of her. She lives in an assisted living facility with a mostly elderly population.

Physical consequences

Domestic violence does not just leave deep psychological scars on its victims; it also leaves physical ones, often in the form of traumatic brain injury (TBI). Despite this, we as providers fail to recognise the effects a brain injury may have on a victim of domestic violence. Short term memory loss, mood swings, seizures, these are just a few examples of the legacy that TBI leaves behind; yet, do we account for them when we work with survivors of domestic violence?

Both brain injury and domestic violence are recognised public health problems in the United States. The estimated annual costs of TBI is 48.3 billion and between 5 and 10 billion US dollars for domestic violence. Up to 35% of women's visits to an emergency department are related to injury from ongoing abuse.¹ Typically, injuries resulting from domestic violence include fractures, eye and ear injuries, lacerations, and brain injuries. Furthermore, brain injuries occur in up to 36% of domestic abuse related injuries.²

In spite of its prevalence, there is a dearth of research focusing on causes, risks, and consequences of TBI resulting from domestic violence. In a recent study by Corrigan et al., he

1 T Randall, 'Domestic Violence Intervention Calls for More Than Treating Injuries', *Journal of the American Medical Association*, vol. 264, 1990, pp. 939-940.

2 FF Varvaro and DL Lasko, 'Physical Abuse as Cause of Injury in Women: Information for orthopedic nurses', *Orthopedic Nursing*, vol. 12, 1993, pp. 37-41.

finds in a sample of women reporting to the emergency room for injuries relating to abuse that 67% of those surveyed report a total of 97 residual problems that are potentially related to a brain injury (e.g. headaches, memory loss, concentration). Additionally, sexual assault and domestic violence staff identify 35% of female respondents as potentially brain injured. These findings suggest that 18% of domestic violence victims presenting to an emergency department have residual symptoms as a result of a brain injury and as many as 67% present with one or more elements of Post Concussive Syndrome.³ The findings indicate an urgent need for early evaluation for potential brain injury and its effects in women with histories of domestic violence.

Children are also victims of domestic violence and are often left with life-long disabilities due to TBI. Shaken Baby Syndrome (SBS), a form of TBI, is the leading cause of child abuse deaths in the US.⁴ At least one out of four babies who are violently shaken dies from the trauma. In the Commonwealth of Virginia, the parent or guardian is most often the abuser (54% of SBS cases were committed by parents or guardians from 2003-2007). Of the 26 deaths due to SBS from 2003-2007, over 60% were less than one year of age, and in 42% of the cases, the father was the abuser. Similarly, between 2004 and 2008, 98 children were hospitalised for injuries related to SBS and 84% were under the age of one year. In approximately 34% of these cases, the father was the abuser.⁵

Physicians, friends, and social workers all need to be asking the survivors of domestic violence about potential brain injuries. We need our hospitals to begin screening for brain injury when a victim seeks medical treatment. Service providers need to begin providing their services in the context of a survivor's brain injury. Furthermore, there needs to be more research to begin exploring the depths of this complex relationship between domestic violence and brain injury. Victims like Carol and Megan should not have to wait until multiple hospitalisations or institutionalisations give them the access to services they need in order to live successfully in their communities.

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3 JD Corrigan, M Wolfe, JW Mysiw, RD Jackson and JA Bogner, 'Early Identification of Mild Traumatic Brain Injury in Female Victims of Domestic Violence', *Clinical Journal of Women's Health*, vol. 1, 2001, pp. 184-90.

4 'Heads Up: Prevent Shaken Baby Syndrome', Centers for Disease Control and Prevention, (published online 7 July 2010) <<http://www.cdc.gov/concussion/HeadsUp/sbs.html>>, accessed 9 November 2010.

5 Virginia Department of Health, 'Virginia Injury Update: Abusive Head Trauma (Shaken Baby Syndrome) In Virginia, 2004-2008', 2010.