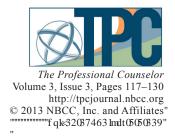
# Examining the Theory of Historical Trauma Among Native Americans



**Kathleen Brown-Rice** 

The theory of historical trauma was developed to explain the current problems facing many Native Americans. This theory purports that some Native Americans are experiencing historical loss symptoms (e.g., depression, substance dependence, diabetes, dysfunctional parenting, unemployment) as a result of the cross-generational transmission of trauma from historical losses (e.g., loss of population, land, and culture). However, there has been skepticism by mental health professionals about the validity of this concept. The purpose of this article is to systematically examine the theoretical underpinnings of historical trauma among Native Americans. The author seeks to add clarity to this theory to assist professional counselors in understanding how traumas that occurred decades ago continue to impact Native American clients today.

*Keywords:* historical trauma, Native Americans, American Indian, historical losses, cross-generational trauma, historical loss symptoms

Compared with all other racial groups, non-Hispanic Native American adults are at greater risk of experiencing feelings of psychological distress and more likely to have poorer overall physical and mental health and unmet medical and psychological needs (Barnes, Adams, & Powell-Griner, 2010). Suicide rates for Native American adults and youth are higher than the national average, with suicide being the second leading cause of death for Native Americans from 10–34 years of age (Centers for Disease Control and Prevention [CDC], 2007). Given that there are approximately 566 federally recognized tribes located in 35 states, and 60% of Native Americans in the United States reside in urban areas (Indian Health Services, 2009), there is much diversity within the Native American population. Therefore, it is difficult to make overall generalizations regarding this population (Gone, 2009), and it is important to not stereotype all Native American people. Still, Native American individuals are reported as having the lowest income, least education, and highest poverty level of any group—minority or majority—in the United States (Denny, Holtzman, Goins, & Croft, 2005) and the lowest life expectancy of any other population in the United States (CDC, 2010).

To explain why some Native American individuals are subjected to substantial difficulties, Brave Heart and Debruyn (1998) utilized the literature on Jewish Holocaust survivors and their decedents and pioneered the concept of *historical trauma*. The current problems facing the Native American people may be the result of "a legacy of chronic trauma and unresolved grief across generations" enacted on them by the European dominant culture (Brave Heart & DeBruyn, 1998, p. 60). The primary feature of historical trauma is that the trauma is transferred to subsequent generations through biological, psychological, environmental, and social means, resulting in a cross-generational cycle of trauma (Sotero, 2006). The theory of historical trauma has been considered clinically applicable to Native American individuals by counselors, psychologists, and psychiatrists (Brave Heart, Chase, Elkins, & Altschul, 2011; Goodkind, LaNoue, Lee, Freeland, & Freund, 2012; Myhra,

Kathleen Brown-Rice, NCC, is an Assistant Professor at the University of South Dakota. Correspondence can be addressed to Kathleen Brown-Rice, Division of Counseling and Psychology in Education, School of Education, University of South Dakota, 210E Delzell, Vermillion, SD 57069, kathleen.rice@usd.edu.

2011). However, there has been uncertainty about the validity of this theory due to the ambiguity of some of the concepts with little empirical evidence (Evans-Campbell, 2008; Gone, 2009). Specifically, there has been a lack of research about how the past atrocities suffered by the Native American people are connected with the current problems in the Native American community. The intent of this article is to examine the theoretical framework of historical trauma and apply recent research regarding the impact of trauma on an individual's physiological functioning and cross-generational transmission of trauma. Through this analysis, the author seeks to assist professional counselors in their clinical practice and future research.

## **Core Concepts of Historical Trauma**

Sotero (2006) provided a conceptual framework of historical trauma that includes three successive phases. The first phase entails the dominant culture perpetrating mass traumas on a population, resulting in cultural, familial, societal and economic devastation for the population. The second phase occurs when the original generation of the population responds to the trauma showing biological, societal and psychological symptoms. The final phase is when the initial responses to trauma are conveyed to successive generations through environmental and psychological factors, and prejudice and discrimination. Based on the theory, Native Americans were subjected to traumas that are defined in specific *historical losses* of population, land, family and culture. These traumas resulted in *historical loss symptoms* related to social-environmental and psychological functioning that continue today (Whitbeck, Adams, Hoyt, & Chen, 2004).

#### **Historical Losses**

For the last 500 years, individuals from the dominant European cultures have engaged in behaviors that have resulted in the purposeful and systematic destruction of the Native American people (Plous, 2003). Native Americans have been subjected to traumas that have resulted in specific historical losses. These losses include loss of people, loss of land, and loss of family and culture (Brave Heart & Debruyn, 1998; Garrett & Pichette, 2000; Whitbeck et al., 2004).

The population of Native Americans in North America decreased by 95% from the time Columbus came to America in 1492 and the establishment of the United States in 1776 (Plous, 2003). This decline can be explained by two main factors: the intentional killing of Native Americans and the exposure of Native Americans to European diseases (Trusty, Looby, & Sandhu, 2002). The majority of the Native American population died due to its lack of resistance to "diseases such as smallpox, diphtheria, measles, and cholera" that Europeans brought to North America (Trusty et al., 2002, p. 7). While some of the exposure to these illnesses was unintentional on the part of the Europeans, it has been documented that many times the Native American people were purposely subjected to these diseases. In 1763, for instance, Lord Jeffrey Amherst ordered his subordinates to introduce smallpox to the Native American people through blankets offered to them (Plous, 2003).

This loss of population further impacted the Native American community due to the lack of public acknowledgment of these deaths by the dominant culture and the denial of Native Americans to properly mourn their losses. Mourning practices were disrupted when an 1883 federal law prohibited Native Americans from practicing traditional ceremonies (Brave Heart, Chase, Elkins, & Altschul, 2011). This law remained in effect until 1978, when the American Indian Religious Freedom Act was enacted. This disenfranchised grief has resulted in the Native American people not being able to display traditional grief practices (Brave Heart et al., 2011; Sotero, 2006). As a result, subsequent generations have been left with feelings of shame, powerlessness and subordination (Brave Heart & DeBruyn, 1998).

The taking of Native American lands was a primary agenda for the majority of the United States government officials in the 19th century (Duran, 2006; Sue & Sue, 2012). President Andrew Jackson approved the Indian

Removal Act of 1830, initiating the use of treaties in exchange for Native American land east of the Mississippi River and forcing the relocation of as many as 100,000 Native Americans (Plous, 2003). The motivation for the confiscation of the lands was often driven by economics (e.g., Fort Laramie Treaty of 1868; Trusty et al., 2002). By 1876, the U.S. government had obtained the majority of Native American land and the Native American people were forced to either live on reservations or relocate to urban areas (Brave Heart & Debruyn, 1998; Trusty et al., 2002). Reservations, for the most part, were not the best lands for agriculture and hunting. Further, being relocated to urban areas removed Native American people from all the lives they were familiar with. Leaving their domestic lands led to a decline in socioeconomic status as Native American men were not able to provide for their families, and the families became dependent on goods provided by the U.S. government (Brave Heart & Debruyn, 1998). These relocations resulted in the death of thousands of Native Americans and the disruption of families.

The agenda throughout the majority of history by U.S. government agencies, churches, and other organizations was to encroach on the Native American population and lands, leading to a disruption to the Native American culture for the preponderance of the Native population (Brave Heart & DeBruyn, 1998; Garrett & Pichette, 2000). Principally, the intent was to force the Native American people to fully assimilate to the dominant European-American culture and completely abandon their own culture. In 1871 the U.S. congress declared Native Americans wards of the U.S. government, and the U.S. government's goal became to civilize Native Americans and assimilate them to the dominant White culture (Trusty et al., 2002). Government and church-run boarding schools would take Native American children from their families at the age of 4 or 5 and not allow any contact with their Native American relations for a minimum of 8 years (Brave Heart & Debruyn, 1998; Garrett & Pichette, 2000). In the boarding schools, Native American children had their hair cut and were dressed like European American children; additionally, all sacred items were taken from them and they were forbidden to use their Native language or practice traditional rituals and religions (Brave Heart & Debruyn, 1998; Garrett & Pichette, 2000). Many children were abused physically and sexually and developed a variety of problematic coping strategies (e.g., learned helplessness, manipulative tendencies, compulsive gambling, alcohol and drug use, suicide, denial, and scapegoating other Native American children) (Brave Heart & Debruyn, 1998; Garrett & Pichette, 2000). Such circumstances led many Native Americans to not engage in traditional ways and religious practices, which led to a loss of ethnic identity (Garrett & Pichette, 2000). The removal of children from their families is considered one of the most devastating traumas that occurred to the Native American people because it resulted in the disruption of the family structure, forced assimilation of children, and a disruption in the Native American community. This situation is considered the crucial precursor to many of the existing problems for some Native Americans (Brave Heart & Debruyn, 1998; Duran & Duran, 1995).

#### **Historical Loss Symptoms**

The second core concept of the theory of historical trauma relates to the current social-environmental, psychological and physiological distress in Native American communities, in that these difficulties are a direct result of the historical losses this population has suffered. Specifically, these traumatic historical losses result in historical loss symptoms.

Societal-environmental concerns. Domestic violence and physical and sexual assault are three-and-a-half times higher than the national average in Native American communities; however, this number may be low, as many assaults are not reported (Sue & Sue, 2012). Cole (2006) proposed that the breakdown in Native American families due to the forced removal of Native American children can be seen as the reason for the high number of child abuse and domestic violence incidents reported in these families. Additionally, Native American children are one of the most overrepresented groups in the care of child protective services (Hill, 2008). Further, fewer Native Americans have a high school education than the total U.S. population; an even

smaller percentage has obtained a bachelor's degree: 11% compared with 24% of the total population. Almost 26% of Native Americans live in poverty compared to 12% for the entire U.S. population (U.S. Census Bureau, 2006). Native Americans residing on reservations have double the unemployment rate compared to the rest of the U.S. population (U.S. Census Bureau, 2006).

**Psychological concerns.** Native Americans have the highest weekly alcohol consumption of any ethnic group (Chartier & Caetano, 2010). Native American adults reported that in the last 30 days, 44% used alcohol, 31% engaged in binge drinking, and 11% used an illicit drug (National Survey on Drug Use and Health, 2010). Many Native American adolescents have co-occurring disorders related to substance abuse and mental health disorders (Abbott, 2006). Abuse of alcohol by Native individuals may be related to low self-esteem, loss of cultural identity, lack of positive role models, history of abuse and neglect, self-medication due to feelings of hopelessness, and loss of family and tribal connections (Sue & Sue, 2012).

Statistics indicate that a proportionally high level of Native Americans have mood disorders and posttraumatic stress disorder (PTSD; CDC, 2007; Dickerson & Johnson, 2012). Suicide rates among Native Americans are 3.2 times higher than the national average (CDC, 2007). For males ages 15–19, Native American suicide rates were 32.7 per 100,000, compared to non-Hispanic White (14.2), Black (7.4), Hispanic (9.9), and Asian or Pacific Islander (8.5) [CDC, 2007]. Studies have shown family disruptions and loss of ethnic identity places Native American adolescents at higher risk for alcoholism, depression and suicide (May, Van Winkle, Williams, McFeeley, DeBruyn, & Serma, 2002). It has been found that an increase in the number of suicides corresponds to a lack of linkage between the adolescents and their cultural past and their ability to relate their past to their current situation and the future (Chandler, Lalonde, Sokol, & Hallet, 2003).

**Physiological concerns.** The life expectancy at birth for the Native American population is 2.4 years less than that of all U.S. populations combined (CDC, 2010). Further, Native American individuals are overrepresented in the areas of heart disease, tuberculosis, sexually transmitted diseases, and injuries with, diabetes being more prevalent with this population than any other racial or ethnic group in the United States (Barnes et al., 2010). Only 28% of Native Americans under the age of 65 have health insurance (CDC, 2010).

The majority (60%) of Native Americans receive behavioral and medical health services from Indian Health Services (IHS, 2013a). IHS was established and funded by the U.S. government in 1955 to uphold treaty obligations to provide healthcare services to members of federally recognized Native American tribes (Jones, 2006). Three branches of service exist within IHS: (a) an independent, federally operated direct care system, (b) tribal operated health care services, and (c) urban Indian health care services (Seguist, Cullen, & Acton, 2011). However, according to the IHS (2009), the Native American people "have long experienced lower health status when compared with other Americans." This is substantiated by the IHS (2013a) report that \$2,741 is spent per IHS recipient in comparison to \$7,239 for the general population; of that, less than 10% of these funds were utilized for mental health and substance abuse treatment in 2010 even though the rates of mental health and substance abuse issues are prominent. This disparity in medical and behavioral health services is due to "inadequate education, disproportionate poverty, discrimination in the delivery of health services, and cultural differences" (IHS, 2013b). Further, Barnes and colleagues (2010) reported that the inequality may not only be related to the above factors, but epigenetic and behavioral influences. There may be environmental factors that alter the way genes are expressed (Francis, 2009) and behavioral patterns that further negatively influence the situation. In order to gain a better understanding of relationship epigenetic component, it is important to recognize how trauma impacts a person's physical as well as mental functioning.

## The Impact of Trauma on Physiological Functioning

"Traumatic experiences cause traumatic stress, which disrupts homeostasis" in the body (Solomon & Heide, 2005, p. 52). People who have experienced traumatic events have higher rates than the general population for cardiovascular disease, diabetes, cancer and gastrointestinal disorders (Kendall-Tackett, 2009). Specifically, trauma affects the functioning of the sympathetic nervous system and the endocrine system (Solomon & Heide, 2005). When the body is experiencing stress, it needs oxygen and glucose in order to fight or flee from the perceived danger. The brain then sends a message to the adrenal glands telling, them to release epinephrine (Kendall-Tackett, 2009). Epinephrine increases the amount of sugar in the blood stream, increases the heart rate and raises blood pressure. The brain also sends a signal to the pituitary gland to stimulate the adrenal cortex to produce cortisol that keeps the blood sugar high in order to give the body energy to be able to escape the stressor (Solomon & Heide, 2005). This physiological response to stress is created for a short-term remedy. Additionally, it has been found that in people who have experienced a prior trauma, their bodies react quicker to new stressors and thus cortisol and epinephrine are released at a faster rate (Kendall-Tackett, 2009).

#### Amygdala and Hypothalamic-Pituitary-Adrenal Axis

Experiencing trauma can impact a person's neurological functioning. After a traumatic event, many people have an overactive amygdala (Brohawn, Offringa, Pfaff, Hughes, & Shin, 2010). This hyperactivation of the amygdala "may be responsible for symptoms of hyperarousal in PTSD, including exaggerated startle responses, irritability, anger outbursts, and general hypervigilance," and may be the reason for a person re-experiencing the event due to a trauma reminder (Weiss, 2007, p. 116). After the original trauma takes place, any perceived external threat that reminds the body of the original trauma (e.g., sound, face, smell, gesture) will cause the body, through the amygdala, to automatically respond to the perceived threat by producing epinephrine and cortisol (Weiss, 2007). This biological response happens without the person consciously being aware of it. It has been found that "emotionally arousing stimuli are generally better remembered than emotionally neutral stimuli, and the amygdala is responsible for this emotional memory enhancement" (Koenigs & Grafman, 2009, p. 546). The amygdala is responsible for giving emotional meaning to the external stimuli; however, the hippocampus provides contextual meaning to the stimuli (Brohawn et al., 2010).

Ganzel, Casey, Glover, Voss, and Temple (2007) examined whether trauma exposure has long-term effects on the brain and behavior in healthy individuals. These researchers compared a group of people who lived within 1.5 miles of the World Trade Center on 9/11 (Ground Zero) and a group of people who lived 200 miles away from Ground Zero. More than three years after the events of 9/11, both groups were shown pictures of fearful and calm faces; the amygdala activation of the group members was measured utilizing functional Magnetic Resonance Imaging (fMRI; Ganzel et al., 2007). The results indicated that the group that resided closer to Ground Zero had heightened amygdala reactivity when shown images of people in fear.

In another study, researchers utilized fMRI to examine amygdala and hippocampus activation in 18 trauma-exposed non-PTSD control subjects and 18 individuals with PTSD (Brohawn et al., 2010). The results of this study indicated that there was hyperactive amygdala activation when negative emotional stimuli were introduced to the PTSD group. Additionally, when a person is exposed to traumatic events during development, the hypothalamic-pituitary-adrenal (HPA) axis can be altered, which may increase susceptibility to disease, including PTSD and other mood and anxiety disorders (Gillespie, Phifer, Bradley, & Ressler, 2009). The HPA axis is the part of the neuroendocrine system that controls reactions to stress as well as regulates digestion, the immune system, mood and emotions, and sexuality. This overactivation of the amygdala and HPA axis due to re-experiencing the initial trauma sends the message to the adrenal glands to release epinephrine and cortisol (Kendall-Tackett, 2009; Solomon & Heide, 2005). Current research has shown that the continual

release of cortisol due to exposure to recurrent stressors, particularly during development, can cause the HPA axis to shutdown, which results in low cortisol levels (Neigh, Gillespie, & Nemeroff, 2009). Therefore, chronic exposure to stressors can relate to either a hypo- or hyper-stress response in the HPA axis.

This impact on the HPA axis functioning may explain why researchers have found a relationship between PTSD and physical illnesses. Weisberg et al. (2003) performed a study of 502 adults; 17% had no history of trauma, 46% had a history of trauma but no PTSD, and 37% were diagnosed with PTSD. The researchers found that individuals with PTSD reported a significantly larger number of current and lifetime medical conditions than did other participants, including anemia, arthritis, asthma, back pain, diabetes, eczema, kidney disease, lung disease, and ulcers (Schnurr & Green, 2004; Weisberg et al., 2003). Specifically, a multiple regression indicated that PTSD was a stronger predictor of medical difficulties than physical injury, lifestyle factors, or comorbid depression (Weisberg et al., 2003). A study of veterans found that those participants with PTSD were more likely to have the medical conditions of osteoarthritis, diabetes, heart disease, comorbid depression, and obesity (David, Woodward, Esquenazi, & Mellman, 2004). Additionally, Goodwin and Davidson (2005) conducted a survey study of over 5,500 subjects and found that there was an association between a diagnosis of diabetes and having PTSD.

## **Integrating Historical Trauma Theory**

As evidenced above, the traumas inflicted on the Native American people (historical losses) are well documented and the literature provides significant information regarding the current psychological, environmental-societal, and physiological problems facing the Native American people (historical loss symptoms). The literature also supports the conceptualization of a relationship between experiencing trauma and the brain remembering the trauma when confronted by an emotional meaning stimulus (Brohawn et al., 2010; Weiss, 2007). Further, a relationship between PTSD and physiological functioning has been found (David et al., 2004; Weisberg et al., 2003). Therefore, it can be surmised that, given the substantial historical traumas Native Americans have experienced, they would be at greater risk of developing physical and emotional concerns related to re-experiencing these traumas. However, the question remains whether some Native American people are being confronted by emotionally significant stimuli in the present day that causes them to reflect about the historical traumas that occurred many generations ago.

In answer to this question, Whitbeck and colleagues (2004) developed the Historical Loss Scale and the Historical Loss Associated Symptoms Scale. Whitbeck et al. (2004) surveyed Native American adult parents of children for their perceptions of historical events. These participants were generations removed from many of the historical traumas that had been inflicted on the Native American people. However, 36% had daily thoughts about the loss of traditional language in their community and 34% experienced daily thoughts about the loss of culture (Whitbeck et al., 2004). Additionally, 24% reported feeling angry regarding historical losses, and 49% provided they had disturbing thoughts related to these losses. Almost half (46%) of the participants had daily thoughts about alcohol dependency and its impact on their community. Further, 22% of the respondents indicated they felt discomfort with White people, and 35% were distrustful of the intentions of the dominant White culture due to the historical losses the Native American people had suffered (Whitbeck et al., 2004).

Ehlers, Gizer, Gilder, Ellingson, & Yehuda (2013) utilized the Historical Loss Scale and Historical Loss Associated Symptoms Scale to survey 306 Native American adults. The majority of the participants thought about historical losses at least occasionally and these thoughts caused them distress. In particular, how frequent a person thought about historical losses was linked with not being married, high degrees of Native heritage and cultural identification. When comparing the Whitbeck et al. (2004) and Ehlers et al. (2013) studies, about the

same percentage of participants thought about the losses several times a day; however, respondents reported less daily and weekly thoughts of historical losses in the Ehlers et al. (2013) results. The differences between the two studies could be a result of "the extent of historical losses suffered by each individual Native community, the impact of current trauma, levels of acculturation, population norms about historical losses, and population admixture" (Ehlers et al., 2013, p. 6). Therefore, it is important to recognize there are differences in how historical losses are impacting Native American communities.

The above findings may clarify one reason why some populations in the Native American community are suffering from such severe emotional, physical and social-environmental consequences related to past traumas. Specifically, their bodies' ability to deal with stress has been overwhelmed by the reoccurring thoughts related to historical losses they have suffered. However, it is important not to make generalizations and to remember not all of the Native American people have been experiencing severe historical loss symptoms (Evans-Campbell, 2008). These within-group differences in the Native American population would explain the variances in rates of disease, child abuse and neglect, violence, suicide, unemployment, familial disruption, and poverty between tribal affiliations.

Another important consideration is an individual's perception of being discriminated against. Perceived discrimination has been associated with negative health consequences (Bogart, Wagner, Galvan, Landrine, Klein, & Sticklor, 2011). In particular, Capezza, Zlotnick, Kohn, Vicente, and Saldivia (2012) administered structured diagnostic assessments for major depressive disorder (MDD) and PTSD and the Alcohol Use Disorders Identification Test (AUDIT) to 2,839 participants in Concepción and Talcahuano, Chile. These researchers found that controlling for demographic variables and previous trauma, participants who reported discrimination in the preceding six months were significantly more likely to participate in risky alcohol use, illegal drug use, and be diagnosed with MDD and PTSD than respondents not reporting discrimination.

Another study examined the relationships between neglect and abuse, PTSD symptoms, ethnicity-specific factors (e.g., ethnic orientation, ethnic identity, perceived discrimination), and alcohol and drug problems within adolescent girls (Gray & Montgomery, 2012). These researchers found that abuse and neglect were correlated to alcohol and drug problems, but only in relation with PTSD symptoms. It also was found that greater perceived discrimination was related with an increased influence of abuse and neglect on PTSD symptoms (Gray & Montgomery, 2012). Given the generations of persecution, discrimination, and oppression suffered by the Native American people (Brave Heart et al., 2011), it is reasonable that perceived discrimination could be an aggravating factor.

#### **Cross-Generational Trauma Transmission**

As a result of the loss of people, land, and culture, a systematic transmission of trauma to subsequent generations occurred that has resulted in historical loss symptoms for many Native American individuals (Brave Heart et al., 2011; Whitbeck et al., 2004). Specifically, the traumatic events suffered during previous generations creates a pathway that results in the current generation being at an increased risk of experiencing mental and physical distress that leaves them unable to gain strength from their indigenous culture or utilize their natural familial and tribal support system (Big Foot & Braden, 2007). Therefore, the next step in investigating the theory of historical trauma is to understand how the generational transmission of trauma transpires. Significant research has been completed on the cross-generational transmission of trauma regarding Holocaust victims and their descendants (Doucet & Rovers, 2010; Jacobs, 2011; Neigh et al., 2009; Yehuda, Schmeidler, Wainberg, Binder-Brynes, & Duvdevani, 1998).

Based upon this research, three means by which trauma is transmitted to subsequent generations have been identified: (a) children identifying with their parents' suffering, (b) children being influenced by the style of communication caregivers use to describe the trauma, and (c) children being influenced by particular parenting styles (Doucet & Rovers, 2010). Parental identification is a form of vicarious learning in which the child identifies with trauma and takes on the historical loss symptoms. Lichenstein and Annas (2000) found there is a relationship between a parent having a fear and children developing the same fear due to vicarious learning. This seems to be substantiated by Myhra's (2011) findings that all 13 participants in a qualitative study examining the relationship between substance use and historical trauma in Native American adults believed that historical trauma was key to their elders' dysfunctional behavior—in particular, substance abuse. One participant characterized it as "monkey see, monkey do," in that she was following her family's pattern of abusing substances and being involved in abusive interpersonal relationships (Myhra, 2011, p. 26). However, it is important to mention that participants also expressed a great respect and admiration for their elders due to their strength and resiliency.

Lichenstein and Annas (2000) also examined if the way parents relayed information to children regarding a stimulus impacted the development of a fear or phobia in the children. The researchers found that there was a relationship between children developing a fear or phobia when parents engaged in negative talk with children regarding the stimulus. In the Native American culture, information and history is often passed down from generation to generation in a narrative summary. Given that the atrocities that were inflicted on the Native American people were substantive, it seems understandable that transmission of historical loss symptoms could occur via this pathway to the children. In fact, Myhra (2011) found that Native American participants connected "the impact of elders' stories of historical trauma and loss, and their own traumatic experiences, to intrusive thoughts about these ordeals and to fear that trauma will continue for future generations" (p. 25).

Parenting style also can be impacted as a result of trauma. Walker (1999), in completing an extensive literature review of this subject, found that parenting can be impacted as a result of the parental exposure to trauma. First, parents may have difficulty with trust and intimacy as a result of their experiences of being victimized. Therefore, it may be a challenge for them to develop a healthy attachment with their children. Second, many adults who have been subjected to abuse and neglect may in turn unintentionally enter into a cycle of violence with their own children (Walker, 1999). Due to the forced removal of Native children from their homes and tribal communities, the familial structure was interrupted and many suffered extreme abuse and neglect (Cole, 2006). Therefore, subsequent generations of Native Americans may have not been able to develop healthy parenting styles and inadvertently continued a cycle of violence and abuse. A relationship between a parent's diagnosis of PTSD and abuse and neglect of children also has been found. Children of Holocaust survivors diagnosed with PTSD report more neglect and emotional abuse than demographically similar children of parents who were not diagnosed with PTSD (Neigh et al., 2009; Yehuda, Bierer, Schmeidler, Aferiat, Breslau, & Dolan, 2000). The reasons why Native American children stand overrepresented in the U.S. foster care system (Hill, 2008) may be related to the abuse suffered by many Native Americans while in boarding schools and the high number of Native Americans displaying PTSD symptoms.

As mentioned previously, experiencing traumatic events during development can alter the HPA axis, which may increase susceptibility to disease (e.g., PTSD, mood and anxiety disorders) (Gillespie et al., 2009). Specifically, it has been found that children of Holocaust survivors have significantly lower cortisol levels when compared with control groups (Yehuda et al., 2000). Further, children of parents who developed PTSD after surviving the Holocaust had reduced cortisol levels when compared to children of Holocaust survivors that did not have PTSD. The results of this study provide that trauma exposure can change how the HPA axis functions and increase risk of PTSD symptoms at least one generation removed from the initial trauma experience (Neigh et al., 2009; Yehuda et al., 2000).

Other studies have found that adult children of Holocaust survivors have a greater lifespan occurrence of PTSD, as well as other mood and anxiety disorders, than demographically comparable individuals who reported a similar exposure to trauma (Neigh et al., 2009; Yehuda et al., 1998). Further, children of trauma-exposed Holocaust survivors who did not develop PTSD were at an increased risk of manifesting other mental health disorders (e.g., depression, anxiety, PTSD) when compared to individuals whose parents were not exposed to trauma (Yehuda, Halligan, & Bierer, 2001). Additionally, researchers have looked at the impact of maternal trauma on the unborn child. Nine-month-old infants born to mothers who were diagnosed with PTSD as a result of trauma-exposure related to the September 11, 2001 attacks had lower cortisol levels than infants born to unexposed mothers (Neigh et al., 2009; Yehuda et al., 2005). The results were more significant with infants whose mothers were in their third trimester when the attacks occurred.

Based upon the above cited research, it can be surmised that parents' exposure to trauma does form a passageway to subsequent generations that results in an increased risk of negative mental health symptoms. In fact, the latest version of the American Psychiatric Association (APA, 2013) *Diagnostic and Statistical Manual of Mental Disorders* (*DSM-5*) includes a stressor criterion for adults, adolescents, and children older than six years related to learning that a close relative or close friend was exposed to trauma. Additionally, the DSM-5 added a PTSD diagnosis for a child six years or younger. One of the triggering events is a child learning that a traumatic event has occurred to a parent or caregiving figure (APA, 2013).

## **Implications for Professional Counselors**

The results of this analysis of historical trauma assist in removing some of the ambiguity regarding this theory. Specifically, a link between neurological functioning and trauma and cross-generational trauma transmission were conceptualized and applied to the theory of historical trauma. This comprehensive examination provides professional counselors with an increased understanding of how traumas that occurred within the Native American population generations ago continue to impact clients today. This information is critical to enhance clinicians' clinical skills when working with Native American clients. Having an understanding of historical trauma will assist professional counselors in being more responsive to the unique needs of members of this population and incorporating historical trauma in their clinical work.

Dionne, Davis, Sheeber, and Madrigal (2009) provide that integrating mainstream mental health intervention in Native American individuals should involve two phases: (a) motivational phase (i.e., historical context around current difficulties in Native American communities is discussed); and (b) intervention phase (i.e., utilizing mainstream evidence-based interventions). Not only do clinicians and interventions need to be culturally competent, but conventional counseling theories need to be adjusted to be culturally appropriate (Wendt & Gone, 2012). Thus, traditional counseling theories should be integrated with elements of historical trauma and the Native American holistic view of the person.

First, professional counselors should reframe historical loss symptoms in terms of collective responses that are employed to assist clients in alleviating symptoms (Brave Heart & DeBruyn, 1998). Thus, the psychological, social-environmental, and physiological concerns that plague many Native people are signs and symptoms of a communal reaction to generations of persecution, discrimination, and oppression. Specifically, historical trauma differs from the diagnosis of PTSD in that many of the traumas that occurred were systemic in nature (e.g., massacres, Trail of Tears, mass removal of children), which led to collective subjugated grief. Brave Heart and DeBruyn (1998) in their pioneering writings on historical trauma proposed that the initial disenfranchised grief of the Native American people resulted in historical unresolved grief. Therefore, a second intervention is the need for clinicians to validate the existence of not only the initial historical losses

that occurred but the continued discrimination and oppression that has impacted the Native American people (Brave Heart et al., 2011). Therapeutic change may be difficult for Native American clients to engage in without validation of not only the past atrocities that occurred to Native American communities, but acknowledgment of the current discriminatory environment that many Native people still endure. Given that the dominant European culture has been the perpetrator of many of the historical losses, this validation is especially important when the professional counselor is a member of the White dominant culture. Third, clients should be educated regarding historical trauma to enhance awareness about its impact and the associated grief and loss that can occur (Brave Heart & DeBruyn, 1998). The Native American people are well aware of the history of the traumas of their people; however, they might not have insight about how the events of the past may impact them today.

Finally, professional counselors need to understand that historical trauma permeates all domains of existence (e.g., personal identity, interpersonal relationships, collective memory, cultural and spiritual worldviews; Weisband, 2009). Clinicians need to have knowledge that historical losses impact all facets of a client. This can be explained to the client by use of the Medicine Wheel Model of Wellness, Balance, and Healing (The Medicine Wheel). According to this model, a person is interconnected through the spiritual, physical, emotional and mental. The Medicine Wheel has been found to be an effective tool in working with Native American individuals (Gray & Rose, 2012).

### **Implications and Directions for Future Research**

This article provides needed insight regarding historical trauma; however, future research regarding this concept is needed, as Native Americans are underrepresented in mental health research (Echo-Hawk, 2011). Gone and Alcántara (2007) completed an extensive review of the literature on evidence-based mental health interventions with Native Americans and found 3 randomized or controlled outcome studies, 6 nonrandomized or uncontrolled outcome studies, 16 studies related to intervention descriptions, 7 clinical case studies, and 24 intervention approaches. The majority of these articles did not address assessment of therapeutic outcomes, but were more theoretically based or provided recommendations for working with Native American clients. The 9 outcome studies described pre- and post-intervention results for a treatment group with no control group for comparison, leaving questions about the validity of the treatment intervention. Specifically, there is no proven empirically based treatment modality to utilize when addressing the distinctive mental health needs of Native American clients. Given the severe mental health problems that plague many of the Native American people, determining effective psychological treatments is vital (Gone & Alcántara, 2007). This can be accomplished through future empirical research.

However, the Native people have a history of being devalued and marginalized in the interest of research (Walters & Simoni, 2009). Therefore, research should be conducted in a culturally sensitive and ethical manner. This is best accomplished by utilizing a collaborative approach (Waiters & Simoni, 2009). Therefore, researchers should work in partnership with tribal elders, healers, officials, health administrators and mental health providers. Specifically, future research should utilize a collective approach and take into account the diversity in tribal affiliations of clients (Hartmann & Gone, 2012).

The first area in need of research attention relates to the fact that the majority of the scholarship on historical trauma has been theoretical in nature. Therefore, there is a need to have empirical evidence to substantiate this concept. First, beneficial research would demonstrate a relationship between individuals reflecting on their historical losses (e.g., loss of people, land, family and culture) and suffering from historical loss symptoms (e.g., psychological distress, social-environmental problems, physiological concerns). Given that Whitbeck and colleagues (2004) have created scales to measure historical trauma, other self-report measures (e.g., depression,

anxiety, self-efficacy inventories) could be utilized to determine a relationship between positive and negative affect and a person's degree of historical trauma. Second, this author suggests that the previous research regarding the impact of trauma on physiological functioning can be a catalyst for future research on historical trauma. Specifically, future studies can focus on determining if there is a correlation between neural activity and clients' self-reported level of historical trauma. In these studies, fMRI technology and Whitbeck et al. (2004) scales can be utilized to determine the relationship between clients' self-reported level of historical trauma and amygdala and hippocampus activity.

The second area of research should examine the effectiveness of incorporating indigenous healing methods with mainstream counseling approaches. Utilizing a collaborative approach, researchers would utilize the expertise and guidance of *culture keepers* (e.g., tribal elders, traditional healers) (Hartmann & Gone, 2012) to incorporate indigenous healing methods with mainstream counseling theories. Given that no evidence-based treatment modality has been established for clinicians to utilize when treating Native American clients, additional research in this area is crucial. This article provides clarity on the theory of historical trauma, but there is a need for empirical research in order to improve the understanding of how atrocities perpetuated on the Native American people generations ago continue to manifest today by psychological, social-environmental and physiological means.

#### Conclusion

Large numbers of the Native American population continue to suffer from severe psychological, economic, social, environmental and physical distress. The theory of historical trauma provides professional counselors a framework to understanding the current issues that are invading the Native American people and their culture. Specifically, practitioners working with this population should have an understanding of how the historical losses suffered generations ago have resulted in historical loss symptoms being transferred to subsequent and current generations of Native Americans. The concept of historical trauma is "collective and multilayered rather than being solely centered on an individual" and this differs from a "typical Eurocentric perspective of illness and treatment, which tends to reduce suffering to discrete illnesses with individual causes and solutions" (Goodkind, Hess, Gorman, & Parker, 2012, p. 1021). Therefore, professional counselors should adapt evidence-based practices by applying tribal-specific healing strategies, community support, and approaches that incorporate validation of grief and loss associated with historical traumas (Brave Heart et al., 2011). Failure of professional counselors to deepen their understanding of this population would continue the disparity of Native clients receiving competent behavioral health services and facilitate the continuation of the cycle of historical trauma to future generations.

#### References

- Abbott, P. J. (2007). Co-morbid alcohol/other drug abuse/dependence and psychiatric disorders in adolescent American Indian and Alaska Natives. *Alcoholism Treatment Quarterly*, 24(4), 3–21. doi:10.1300/J020v24n04 02
- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental health disorders*. (5th ed.). Arlington, VA: Author.
- Barnes, P. M., Adams, P. F., & Powell-Griner, E. (2010). Health characteristics of the American Indian or Alaska Native adult population: United States, 2004–2008. *National Health Statistics Reports, No. 20*. Hyattsville, MD: National Center for Health Statistics.
- BigFoot, D., & Braden, J. (2007, Winter). Adapting evidence-based treatments for use with American Indian and Native

- Alaskan children and youth. Focal Point, 21(1), 19–22. Retrieved from <a href="http://www.rtc.pdx.edu/PDF/fpW0706.pdf">http://www.rtc.pdx.edu/PDF/fpW0706.pdf</a>
- Bogart, L. M., Wagner, G. J., Galvan, F. H., Landrine, H., Klein, D. J., & Sticklor, L. A. (2011). Perceived discrimination and mental health symptoms among Black men with HIV. *Cultural Diversity and Ethnic Minority Psychology*, 17(3), 295–302. doi:10.1037/a0024056
- Brave Heart, M., Chase, J., Elkins, J., & Altschul, D. B. (2011). Historical trauma among indigenous peoples of the Americas: Concepts, research, and clinical considerations. *Journal of Psychoactive Drugs*, *43*(4), 282–290. doi:10.1080/02791072.2011.628913
- Brave Heart, M. Y. H., & DeBruyn, L. M. (1998). The American Indian holocaust: Healing historical unresolved grief. *American Indian and Alaska Native Mental Health Research*, 8(2), 60–82.
- Brohawn, K., Offringa, R., Pfaff, D. L., Hughes, K. C., & Shin, L. M. (2010). The neural correlates of emotional memory in posttraumatic stress disorder. *Biological Psychiatry*, 68(11), 1023–1030. doi:10.1016/j.biopsych.2010.07.018
- Capezza, N. M., Zlotnick, C., Kohn, R., Vicente, B., & Saldivia, S. (2012). Perceived discrimination is a potential contributing factor to substance use and mental health problems among primary care patients in Chile. *Journal of Addiction Medicine*, 6(4), 297–303. doi:10.1097/ADM.0b013e3182664d80
- Centers for Disease Control and Prevention (CDC), Office of Minority Health & Health Equity. (2010). *American Indian & Alaska Native populations*. Retrieved from <a href="http://www.cdc.gov/omhd/populations/aian/aian.htm#Disparities">http://www.cdc.gov/omhd/populations/aian.htm#Disparities</a>
- Centers for Disease Control and Prevention (CDC). (2007). *Web-based Injury Statistics Query and Reporting System*. Retrieved from <a href="http://www.cdc.gov/injury/wisqars/index.html">http://www.cdc.gov/injury/wisqars/index.html</a>
- Chandler, M. J., Lalonde, C. E., Sokol, B. W., & Hallett, D. (2003). Personal persistence, identity development, and suicide: A study of Native and non-Native North American adolescents. *Monographs of the Society for Research in Child Development*, 68(2, Serial No. 273).
- Chartier, K., & Caetano, R. (2010). Ethnicity and health disparities in alcohol research. *Alcohol Research & Health*, 33(1-2), 152–160.
- Cole, N. (2006). Trauma and the American Indian. In T. Witko (Ed.), *Mental health care for urban Indians: Clinical insights from Native practitioners* (pp. 115–130). Washington, DC: American Psychological Association.
- David, D., Woodward, C., Esquenazi, J., & Mellman, T. A. (2004). Comparison of comorbid physical illnesses among veterans with PTSD and veterans with alcohol dependence. *Psychiatric Services*, *55*(1), 82–85.
- Denny, C. H., Holtzman, D., Goins, T., & Croft, J. B. (2005). Disparities in chronic disease risk factors and health status between American Indian/Alaska Native and White elders: Findings from a telephone survey, 2001 and 2002. *American Journal of Public Health*, 95(5), 825–827. doi:10.2105/AJPH.2004.043489
- Dickerson, D. L., & Johnson, C. L. (2012). Mental health and substance abuse characteristics among a clinical sample of urban American Indian/Alaska Native youths in a large California Metropolitan area: A descriptive study. *Community Mental Health Journal*, 48(1), 56–62. doi:10.1007/s10597-010-9368-3
- Dionne, R., Davis, B., Sheeber, L., & Madrigal, L. (2009). Initial evaluation of a cultural approach to implementation of evidence-based parenting interventions in American Indian communities. *Journal of Community Psychology*, 37(7), 911–921. doi:10.1002/jcop.20336
- Doucet, M., & Rovers, M. (2010). Generational trauma, attachment, and spiritual/religious interventions. *Journal of Loss & Trauma*, 15, 93–105. doi: 10.1080/15325 020903373078
- Duran, E. (2006). *Healing the soul wound: Counseling with American Indians and other Native peoples*. New York, NY: Teachers College Press.
- Duran, E., & Duran, B. (1995). *Native American postcolonial psychology*. Albany, NY: State University of New York Press.
- Echo-Hawk, H. (2011). Indigenous communities and evidence building. *Journal of Psychoactive Drugs*, 43(4), 269–275. doi:10.1080/02791072.2011.628920
- Evans-Campbell, T. (2008). Historical trauma in American Indian/Native Alaska communities: A multilevel framework for exploring impacts on individuals, families, and communities. *Journal of Interpersonal Violence*, *23*(3), 316–338. doi:10.1177/0886260507312290
- Francis, D. D. (2009). Conceptualizing child health disparities: A role for developmental neurogenomics. *Pediatrics*, *124*, 196–202. doi:10.1542/peds.2009-1100G
- Ganzel, B., Casey, B. J., Glover, G., Voss, H. U., & Temple, E. (2007). The aftermath of 9/11: Effect of intensity and recency of trauma on outcome. *Emotion*, 7(2), 227–238. doi:10.1037/1528-3542.7.2.227
- Garrett, M. T., & Pichette, E. F. (2000). Red as an apple: Native American acculturation and counseling with or without

- reservation. *Journal of Counseling & Development*, 78(1), 3–13.
- Gillespie, C. F., Phifer, J., Bradley, B., & Ressler, K. J. (2009). Risk and resilience: Genetic and environmental influences on development of the stress response. *Depression and Anxiety*, 26(11), 984–992. doi:10.1002/da.20605
- Goodkind, J. R., Hess, J. M., Gorman, B., & Parker, D. P. (2012). "We're still in a struggle": Diné resilience, survival, historical trauma, and healing. *Qualitative Health Research*, 22(8), 1019–1036. doi:10.1177/1049732312450324
- Goodkind, J., LaNoue, M., Lee, C., Freeland, L., & Freund, R. (2012). Involving parents in a community-based, culturally grounded mental health intervention for American Indian youth: Parent perspectives, challenges, and results. *Journal of Community Psychology*, 40(4), 468–478. doi:10.1002/jcop.21480
- Goodwin, R. D, & Davidson, J. R. (2005). Self-reported diabetes and posttraumatic stress disorder among adults in the community. *Preventive Medicine*, 40(5), 570–574.
- Gone, J. P. (2009). A community-based treatment for Native American historical trauma: Prospects for evidence-based practice. *Journal of Counseling and Clinical Psychology*, 77(4), 751–762. doi:10.1037/a0015390
- Gone, J. P., & Alcántara, C. (2007). Identifying effective mental health interventions for American Indians and Alaska Natives: A review of the literature. *Cultural Diversity & Ethnic Minority Psychology*, *13*(4), 356–363. doi:10.1037/1099-9809.13.4.356
- Gray, C. M., & Montgomery, M. J. (2012). Links between alcohol and other drug problems and maltreatment among adolescent girls: Perceived discrimination, ethnic identity, and ethnic orientation as moderators. *Child Abuse & Neglect*, *36*(5), 449–460. doi:10.1016/j.chiabu.2012.03.002
- Gray, J. S., & Rose, W. J. (2012). Cultural adaptation for therapy with American Indians and Alaska Natives. *Journal of Multicultural Counseling and Development*, 40(2), 82–92. doi:10.1002/j.2161-1912.2012.00008.x
- Hartmann, W. E., & Gone, J. P. (2012). Incorporating traditional healing into an urban American Indian health organization: A case study of community member perspectives. *Journal of Counseling Psychology*, *59*(4), 542–554. doi:10.1037/a0029067
- Hill, R. B. (2008). Gaps in research and public policies. *Child Welfare*, 87(2), 359–367.
- Indian Health Service (IHS). (2009). *IHS fact sheets: Indian health disparities*. Retrieved from <a href="http://www.ihs.gov/newsroom/includes/themes/newihstheme/display-objects/documents/factsheets/Disparities-2013.pdf">http://www.ihs.gov/newsroom/includes/themes/newihstheme/display-objects/documents/factsheets/Disparities-2013.pdf</a>
- Indian Health Service (IHS). (2013a). *IHS year 2013 profile*. Retrieved from <a href="http://www.ihs.gov/newsroom/includes/">http://www.ihs.gov/newsroom/includes/</a> themes/newihstheme/display objects/documents/factsheets/ProfileSheet 2013.pdf
- Indian Health Service (IHS). (2013b). *Disparities*. Retrieved from <a href="http://www.ihs.gov/newsroom/factsheets/disparities/">http://www.ihs.gov/newsroom/factsheets/disparities/</a> Jacobs, J. (2011). The cross-generational transmission of trauma: Ritual and emotion among survivors of the Holocaust. *Journal of Contemporary Ethnography*, 40(3), 342–361. doi:10.1177/0891241610387279
- Jones, D. S. (2006). The persistence of American Indian health disparities. *American Journal of Public Health*, 96(12), 2122–2134. doi:10.2105/AJPH.2004.054262
- Lichtenstein, P., & Annas, P. (2000). Heritability and prevalence of specific fears and phobias in childhood. *Journal of Child Psychology and Psychiatry*, 41(7), 927–937.
- Kendall-Tackett, K. (2009). Psychological trauma and physical health: A psychoneuroimmunology approach to etiology of negative health effects and possible interventions. *Psychological Trauma: Theory, Research, Practice, and Policy*, *I*(1), 35–48. doi:10.1037/a0015128
- Koenigs, M., & Grafman, J. (2009). Posttraumatic stress disorder: The role of medial prefrontal cortex and amygdala. *Neuroscientist*, 15(5), 540–548. doi: 10.1177/1073858409333072
- May, P. A., Van Winkle, N. W., Williams, N. B., McFeeley, P. J., DeBruyn, L. M., & Serma, P. (2002). Alcohol and suicide death among American Indians of New Mexico 1980–1998. *Suicide and Life-Threatening Behavior*, 32(3), 240–255.
- Myhra, L. L. (2011). "It Runs in the Family": Intergenerational transmission of historical trauma among urban American Indians and Alaska Natives in culturally specific sobriety maintenance programs. *American Indian and Alaska Native Mental Health Research*, 18, 17–40.
- National Survey on Drug Use and Health (NSDUH). (2010). *Substance use among American Indian or Alaska Native adults*. Office of Applied Studies, Substance Abuse and Mental Health Services Administration. Retrieved from <a href="http://www.oas.samhsa.gov/2k10/182/AmericanIndian.htm#footnote5">http://www.oas.samhsa.gov/2k10/182/AmericanIndian.htm#footnote5</a>
- Neigh, G., Gillespie, C., & Nemeroff, C. (2009). The neurobiological toll of child abuse and neglect. *Trauma, Violence & Abuse*, 10(4), 389–410. doi:10.1177/1524838009339758
- Plous, S. (2002). Understanding prejudice and discrimination. New York, NY: McGraw-Hill.

- Schnurr, P.P., & Green, B. L. (Eds.) (2004). *Trauma and health: Physical health consequences of exposure to extreme stress*. Washington, DC: American Psychological Association.
- Sequist, T. D., Cullen, T., & Acton, K. J. (2011). Indian health service innovations have helped reduce health disparities affecting American Indian and Alaska Native people. *Health Affairs*, *30*(10), 1965–1973. doi:10.1377/hlthaff.2011.0630
- Solomon, E. P., & Heide, K. M. (2005). The biology of trauma: Implications for treatment. *Journal of Interpersonal Violence*, 20(1), 51–60.
- Sotero, M. M. (2006). A conceptual model of historical trauma: implications for public health practice and research. *Journal of Health Disparities Research and Practice*, *I*(1), 93–108.
- Sue, D. W., & Sue, D. (2012). *Counseling the culturally diverse: Theory and practice*. (6th ed.). New York, NY: John Wiley & Sons, Inc.
- Trusty, J., Looby, E. J., & Sandhu, D. S. (2002). *Multicultural counseling: Context, theory and practice, and competence*. New York, NY: Nova Science Publishers.
- United States Census Bureau. (2006). We the People: American Indians and Alaska Natives in the United States: Census 2000 Special Reports, CENSR-28. Retrieved from http://www.census.gov/prod/2006pubs/censr-28.pdf
- Walker, M. (1999). The inter-generational transmission of trauma: The effects of abuse on their survivor's relationship with their children and on the children themselves. *European Journal of Psychotherapy, Counselling and Health*, 2(3), 281–296.
- Walters, K. L., & Simoni, J. M. (2009). Decolonizing strategies for mentoring American Indians and Alaska Natives in HIV and mental health research. *American Journal of Public Health*, 99(S1), S71–S76. doi:10.2105/AJPH.2008.136127
- Weisband, E. (2009). On the aporetic borderlines of forgiveness: Bereavement as a political form. *Alternatives*, *34*(4), 359–381.
- Weiss, S. J. (2007). Neurobiological alterations associated with traumatic stress. *Perspectives In Psychiatric Care*, 43(3), 114–122. doi:10.1111/j.1744-6163.2007.00120.x
- Weisberg, R. B., Bruce, S. E., Bruce, S. E., Machan, J. T., Kessler, R. C., Culpepper, L., & Keller, M. B. (2003). Nonpsychiatric illness among primary care patients with trauma histories and posttraumatic stress disorder. *Psychiatric Services*, *53*(7), 848–854.
- Wendt, D. C., & Gone, J. P. (2012). Rethinking cultural competence: Insights from indigenous community treatment settings. *Transcultural Psychiatry*, 49(2), 206–222. doi:10.1177/1363461511425622
- Whitbeck, L. B., Adams, G. W., Hoyt, D. R., & Chen, X. (2004). Conceptualizing and measuring historical trauma among American Indian people. *American Journal of Community Psychology*, *33*(3-4), 119–130. doi:10.1023/B:AJCP.0000027000.77357.31
- Yehuda, R., Halligan, S. L., & Bierer, L. M. (2001). Relationship of parental trauma exposure and PTSD to PTSD, depressive and anxiety disorders in offspring. *Journal of Psychiatric Research*, *35*(5), 261–270.
- Yehuda, R., Bierer, L. M., Schmeidler, J., Aferiat, D. H., Breslau, I., & Dolan, S. (2000). Low cortisol and risk for PTSD in adult offspring of holocaust survivors. *The American Journal of Psychiatry*, *157*(8), 1252–1259.
- Yehuda, R., Schmeidler, J., Wainberg, M., Binder-Brynes, K., & Duvdevani, T. (1998). Vulnerability to posttraumatic stress disorder in adult offspring of Holocaust survivors. *American Journal of Psychiatry*, *155*, 1163.

