

FREE REPORT

# Intergenerational Trauma: Understanding Natives' Inherited Pain

By Mary Annette Pember

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## Intro

*Trauma has been garnering more and more attention over the past few years, with the rampant climb of Post-Traumatic Stress Disorder, and the understanding of what can cause it. Intergenerational trauma among American Indians is an area of study that has just started to generate attention from communities inside Indian country, academia and the medical profession.*

*Mary Annette Pember has worked for several years to help bring this dynamic issue to the forefront of mainstream health. Her reporting for ICTMN, with the help of support from The Rosalynn Carter Fellowships for Mental Health Journalism and Annenberg School for Communications and Journalism, University of Southern California; the Dennis A. Hunt Fund for Health Journalism has addressed the concept of intergenerational trauma at its core. By addressing breaking news, such as recent evidence that this type of trauma could be passed along through DNA, and by providing several ways of how American Indians are managing and coping with trauma, Pember helps put a human face on abstract theory and practice. Here she shares personal stories that are gritty, poignant and factual.*

## Trauma May Be Woven Into DNA of Native Americans

Trauma is big news these days. Mainstream media is full of stories about the dramatic improvements allowing science to see more clearly how trauma affects our bodies, minds and even our genes. Much of the coverage hails the scientific connection between trauma and illness as a breakthrough for modern medicine. The next breakthrough will be how trauma affects our offspring.

The science of epigenetics, literally “above the gene,” proposes that we pass along more than DNA in our genes; it suggests that our genes can carry memories of trauma experienced by our ancestors and can influence how we react to trauma and stress. The Academy of Pediatrics reports that the way genes work in our bodies determines neuroendocrine structure and is strongly influenced by experience. [Neuroendocrine cells help the nervous and endocrine (hormonal) system work together to produce substances such as adrenaline (the hormone associated with the fight or flight response.) Trauma experienced by earlier generations can influence the structure of our genes, making them more likely to “switch on” negative responses to stress and trauma.

In light of this emerging science and how it works with the way we react to trauma, the AAP stated in its publication, *Adverse Childhood Experiences and the Lifelong Consequences of Trauma*, “Never before in the history of medicine have we had better insight into the factors that determine the health of an individual from infancy to adulthood, which is part of the life course perspective—a way of looking at life not as disconnected stages but as integrated across time,” according to the AAP in their recent publication examining the role of Adverse Childhood Experience (ACES) on our development and health. The now famous 1998 ACES study conducted by the Centers for Disease Control (CDC) and Kaiser Permanente showed that such adverse experiences could contribute to mental and physical illness.

Folks in Indian country wonder what took science so long to catch up with traditional Native knowledge. “Native healers, medicine people and elders have always known this and it is common knowledge in Native oral traditions,” according to LeManuel “Lee” Bitsoi, Navajo, PhD Research Associate in Genetics at Harvard University during his presentation at the Gateway to Discovery conference in 2013.

According to Bitsoi, epigenetics is beginning to uncover scientific proof that intergenerational trauma is real. Historical trauma, therefore, can be seen as a contributing cause in the development of illnesses such as PTSD, depression and type 2 diabetes.

What exactly is historical or intergenerational trauma? Michelle M. Sotero, an instructor in Health Care Administration and Policy at the University of Nevada, offers a three-fold definition. In the initial phase, the dominant culture perpetrates mass trauma on a population in the form of colonialism, slavery, war or genocide. In the second phase the affected population shows physical and psychological symptoms in response to the trauma. In the final phase, the initial population passes these responses to trauma to subsequent generations, who in turn display similar symptoms.

According to researchers, high rates of addiction, suicide, mental illness, sexual violence and other ills among Native peoples might be, at least in part, influenced by historical trauma. Bonnie Duran, associate professor in the Department of Health Services at the University of Washington School of Public Health and Director for Indigenous Health Research at the Indigenous Wellness Research Institute says, “Many present-day health disparities can be traced back through epigenetics to a “colonial health deficit,” the result of colonization and its aftermath.”

According to the American Indian and Alaska Native Genetics Research Guide created by the National Congress of American Indians (NCAI), studies have shown that various behavior and health conditions are due to inherited epigenetic changes.

Authors of the guide refer to a 2008 study by Moshe Szyf at McGill University in Montreal that examined the brains of suicide victims. Szyf and his team found that genes governing stress response in the victim's hippocampus had been methylated or switched off. Excessive trauma causes us to produce hormones called glucocorticoids which can alter gene expression. Chronic exposure to this hormone can inhibit genes in the hippocampus ability to regulate glucocorticoids. Szyf suggested that the genes were switched off in response to a series of events, such as abuse during childhood. All victims in the study were abused as children.

### ***Nature or Nurture? It's Both!***

Szyf, in collaboration with another scientist at McGill, Neurobiologist Michael Meaney, did research showing a significant difference in the hippocampus between adult rats raised by attentive and inattentive mothers. Adult offspring of inattentive rat mothers showed genes regulating sensitivity to stress to be highly methylated. The rats with attentive moms did not.

To test their research they switched the parents for rat babies born to bad and good mothers. The babies born to attentive moms but given to inattentive moms also developed highly methylated genes and grew to be skittish adults. The opposite proved true for babies born to bad moms but given to good moms. As adults the rat babies born to bad moms but raised by good mothers appeared calm.

This research seems to combine the historically polarizing theory of nature versus nurture in determining behavior. Nature is that which is inherited while nurture is the environmental influences.

Native researcher Teresa Brockie PhD, Research Nurse Specialist at the National Institute of Health suggests that such gene methylation is linked to health disparities among Native Americans. In her article in *Nursing and Research and Practice*, she and her research colleagues note that high ACE's (Adverse Childhood Experience) scores have been linked to methylation of genes that regulate the stress response. They further noted that endocrine and immune disorders are also linked to methylation of such genes.

The researchers found that Native peoples have high rates of ACE's and health problems such as posttraumatic stress, depression and substance abuse, diabetes all linked with methylation of genes regulating the body's response to stress. "The persistence of stress associated with discrimination and historical trauma converges to add immeasurably to these challenges," the researchers wrote.

Since there is a dearth of studies examining these findings, the researchers stated they were unable to conclude a direct cause between epigenetics and high rates of certain diseases among Native Americans.

One of the researchers, Dr. Jessica Gill, Principal Investigator, Brain Injury Unit, Division of Intramural Research, National Institute of Nursing Researcher wrote in response to questions to the NIH's public affairs office, "Epigenetic studies provide a unique opportunity to characterize the long-term impact of stressors including historical trauma on the function of genes. The modification of gene function through epigenetic

modifications can greatly impact the health of the individual and may underlie some of the health disparities that we observe in populations including Native Americans. This line of research is of great promise for nurse scientists, as it will be instrumental in the promotion of the health and well-being of patients impacted by trauma and stress.”

Although epigenetics offers the hope of creating better and more specific medicines and interventions for mental health problems, it also suggests the notion that Native peoples and other ethnic groups may be genetically inferior.

Researchers such as Shannon Sullivan, professor of philosophy at UNC Charlotte, suggests in her article “Inheriting Racist Disparities in Health: Epigenetics and the Transgenerational Effects of White Racism,” that the science has faint echoes of eugenics, the social movement claiming to improve genetic features of humans through selective breeding and sterilization.

### ***Inherited Resilience***

Epigenetics is indeed a hot topic, and pharmaceutical companies are actively searching for epigenetic compounds that will help with learning and memory and help treat depression, anxiety and PTSD.

Many researchers caution, however, that the new science may be getting ahead of itself. “There is a lot of research that needs to be done before we will understand whether and how these processes work,” says Joseph Gone, professor at the University of Michigan and member of the Gros Ventre tribe of Montana.

Scientific developments such as epigenetics can offer exciting new insights not only into how our bodies react not only to trauma but also how we manage to survive it.

Native peoples ability to maintain culture and sense of who they are in the face of such a traumatic history suggests an inherited resilience that bears scientific examination as well, according to Gone.

Isolating and nurturing a resilience gene may well be on the horizon.

## **We Have to Know It to Heal It: Defining and Dealing With Historical Trauma**

“And I rose in a rainy autumn and walked abroad in shower of all my days.”

I think of this bit of verse from *Poem in October* by Dylan Thomas as I walk over the grounds where my mother and grandmother lived at the Sister School on the Bad River reservation in Wisconsin. Life there was harsh and often brutal. I don’t remember a time when I didn’t know about the trauma my relatives endured there; although they aren’t my direct experiences, their stories have always been with me. Today’s rain is also filled with a bitter shower of their days.

I’m here to grieve those lost childhood days for them, something they were never permitted to do. Before I can begin I need to know the whole story.

The prospect of drilling deeper into my personal corner of historical trauma, however, is more daunting than I had anticipated. I've written several stories about my mother's life, her boarding school experience and how it spilled over onto me and my family. I thought I'd grown inured to trauma and believed my role as a journalist would protect me from its impact. But standing here on the ruins of the Sister School, I feel vulnerable and afraid.

Although this story is part of a journalism project describing the theory of historical trauma, the emerging science of its impact on our minds and bodies and describing methods to heal it, I've decided to occasionally step out of my journalist's role. I will include some of my experiences and in the process care for my well being along the way, something journalists aren't always encouraged to do.

### ***The Terrible Presence***

Ojibwe are taught that all spirits have a dual nature. For humans, this means all that brings us happiness and success can also bring us pain and suffering. Therefore, we make a point to acknowledge this dichotomy in our spirituality. For me, the ruins of the Sister School are the breeding ground for the negative spirit that infused my family's lives like a terrible presence that we could never discuss let alone acknowledge.

I drive through a snarl of tall weeds and bushes covering the old driveway leading to the remains of the convent and school. The brush snaps back so that my rental car can't be seen from the road; the area is an open, secluded spot surrounded by small trees and bushes. It's quiet here; the remnants of the convent and school foundations barely poke through the ground, covered by moss. The pretty little church, however still stands and I can see its steeple with its bells. My mom often spoke of fights among the children over who would have the privilege of ringing the Angelis.

She told me the bells made a beautiful sound and could be heard all over the reservation. Hearing the bells of the Angelis was one of the few experiences the children shared with their families. Although they lived on the reservation, the children dwelled light years apart from their community and their culture. The Sister School was a place where the very fact of being Indian was wrong, something to be corrected. My mother held on to the details of those cruel corrective measures until she died. Like an awful looping spirit that wouldn't let go, those experiences permeated her life, filling her with fear and anger.

The terrible presence that is my mother's trauma spirit is durable and has proved resistant to many of my intellectual efforts to heal myself from the mysterious anger and fear I took from her. The trauma spirit demands my recognition.

All I have to give it is ceremony.

So here on this cold rainy day, I offer up prayers and smoke with my demure little ladies pipe, abandoning my heart to the great mystery. I've heard elders say that everything we need to heal ourselves is already here in our old ways if only we ask the Creator for help.

When my humble ceremony is complete, I get back in my rental car and begin the rounds of visiting. I have no idea what will happen next.

## *The Cycle of Abandonment*

My cousin, Marylu, has graciously put me up in the spare room of her sweet little rez home here on the Bad River reservation.

A devout Catholic and alum of St. Mary's (the Sister School) Marylu seems a bit skeptical about the impact of historical trauma. The boarding school was closed when she attended and overall her experience there was good. Her parents were strong, hardworking folks who never, in her words, "allowed me to blame who I was for what happened to me."

She understands, however, that not everyone was so lucky and has agreed to help me find out more about my family's history. Fiercely committed to her community, she is known throughout the reservation for her caring and hard work. She introduces me to elders who may remember something about my family.

My family's past reveals itself to me slowly. In my haste, I want to direct the process but the information comes to me in its own time, seemingly only when I am emotionally and spiritually prepared to hear it, one difficult bit at a time. On this trip I learn more about my grandma Cecelia, called "Cele" by family. She died in 1956, before I was born. She was only 56 years old, younger than I am now.

Cele abandoned the family when my mom was five years old; my mother and her four siblings were forced to live at the Sister School beginning in 1930.

Although my grandpa Joe was a brutal drunk, he visited the children occasionally. He made several failed attempts to care for them himself but the drinking would overwhelm him again and again. The children always ended up back at the Sister School. According to my mother, Cele never visited them.

My mother worshiped her father and blamed her mother for the family's hardship. She often spoke of one their fights in which Cele hit Joe over the head with a beer bottle, knocking him out. As she told this story she would pinch her eyes shut and close her little fists tightly, "Oh, I screamed and screamed. I thought she'd killed him!"

"He was a carpenter, just like St. Joseph," she would tell us, smiling at her memory.

I see now that she was identifying with the family abuser; she invented a fantasy about his love and devotion that helped her survive. She described Joe as a good-hearted, happy-go-lucky drunk who couldn't catch a break. The truth, I see now, is complicated and aching human. Joe's untreated alcoholism dominated his life; his unpredictable rage and violence suggests he may have had "shell shock" from his experiences in World War I.

I learn that Cele had also gone to Sister School. She turned up pregnant when she was very young, maybe 15. My great grandma, Mary, welcomed the new life, as is the traditional Ojibwe way. Cele's child was my auntie Geraldine, nicknamed "Bum" and was mostly raised by Grandma Mary, subsumed into her already enormous family of 15 children.

Although Cele's years at the Sister School made her into a devout Catholic, she was unable to endure her marriage to the much older Joe. He was a violent, unpredictable drunk. During their final fight, he attacked her, biting off much of one of her breasts. After recuperating at Grandma Mary's house she decided to leave him. Mary admonished her, "Even a bitch dog stays with its pups!" Only 22 or 23 years old, however, she opted for survival and left the reservation.

According to folks I interview, Cele's children were "throw-away-kids," part of the unfortunate crowd of parentless children on the reservation who had no relatives to care for them.

Occasionally Cele would return to the reservation to pick medicines but never to visit her children. She would shove into a bed with one of our many cousins who recall she would keep others awake as she prayed the entire rosary every night.

Cele later married a white man and brought the then-teenaged Bum to live with them. When Bum became pregnant, however, Cele ordered her out of the house declaring her actions sinful. Bum was incarcerated as "incorrigible" and her child was adopted away.

Cele's actions were the beginning of yet another cycle of abandonment. It seems more than coincidental that she was the first generation to attend Sister School and to hear their messages of Indian racial, cultural and spiritual inferiority. Did she come to believe that she and Native people were unfit to parent their own children?

I wonder if she hoped her nightly prayers whispered into the darkness might somehow redeem her. They did not. Instead she swallowed all that regret, rage and shame and died of colon cancer at age 56.

### ***Trauma, Recognized at Last***

Currently, trauma is taking center stage in public discussions about its impact on mental and physical health. Medical and social sciences research is revealing more each day about the insidious implications of trauma for children, adult victims of violence, soldiers and even future generations who may carry its effects in their DNA.

Which brings us back to the Adverse Childhood Experiences Study. ACES, one may recall, assesses associations between childhood maltreatment and later-life health and well-being in later life. According to the Centers for Disease Control and Prevention (CDC), the ACES Study is one of the largest such investigations ever conducted. The study is a collaboration between the Centers for Disease Control and Prevention and Kaiser Permanente's Health Appraisal Clinic in San Diego.

By using a scoring method, the ACE score, the study shows the tie between a high amount of stress – Adverse Childhood Experiences – and the risk of developing health problems such as addiction, depression, intimate partner violence, suicide, diabetes, liver disease, poor fetal health among others.

Posttraumatic stress disorder (PTSD) is now included in the Diagnostic and Statistical Manual of Mental Disorders (DSM), used by mental health professionals. The latest version, DSM-V released in 2013 recategorized PTSD from an anxiety disorder to a separate chapter called, “Trauma and Stress Related Disorders.” Previously the “stressors” initiating the disorder were defined as experienced directly by the person, now the criteria has been broadened to include:

Learning that a traumatic event occurred to a close family member or close friend (with the actual event of threatened death being either violent or accidental)

and

Experiencing first-hand repeated or extreme exposure to aversive details of the traumatic event (not through media, pictures, television or movies unless work-related.)

According to a 2010 report from the Center on the Developing Child at Harvard University, “The Foundations of Lifelong Health Are Built in Early Childhood,” advances in neuroscience, molecular biology, and genomics offer three compelling conclusions regarding adverse childhood experiences:

—Early experiences are built into our bodies.

—Significant adversity can produce physiological disruptions or biological “memories” that undermine the development of the body’s stress response systems and affect the developing brain, cardiovascular system, immune system, and metabolic regulatory controls.

—These physiological disruptions can persist far into adulthood and lead to lifelong impairments in both physical and mental health.

Native peoples have known about the deadly fallout from trauma for a long time. Our health care professionals and community leaders championed the importance of considering the deadly role historic and ongoing trauma and violence plays in making us the gold standard for disease in this country.

With our high rates of addiction, suicide, diabetes, violence against women and other ills, we could be viewed as ground zero for Adverse Childhood Experiences.

It seems likely that my mother witnessed that last terrible attack by Joe on Grandma Cele. Such an event would certainly earn mom a top ACES score if it happened today. Hearing the story as an adult so many years later was very unsettling for me. I am ill at ease as my psyche struggles to make sense of the event; I wish I didn’t know about it.

As I wade through these medical and behavioral studies and reports, I can’t help thinking of my family and how they hid their trauma. Those who lived through it had no choice but to push onward with their burdens of addiction, mental illness and physical ailments, accepting the Sister School lessons of innate inferiority.



I'm stunned by their courage, not only to survive, but to dare to hope for a decent life. My mother created a fantasy in order to survive all she'd experienced. She fiercely defended her invented past, lashing out angrily if anyone challenged her. She carried on, raised a family and wrestled a measure of happiness from life. Imperfect as it was, hers was a story of bravery and perseverance.

But how exactly do we move beyond stubborn survival and begin living *weweni* (in a good way)? Social service and mental health professionals as well as tribal leaders say Native peoples first need to heal and grieve their historical trauma. Indeed, the need to heal this trauma seems to be on the agenda of nearly every social service and community conference throughout Indian country. But how exactly do we heal? How do we develop and strengthen what the researchers call "resilience"?

There is a growing body of research that indicates resilience is something people can be taught.

### ***Learning Resilience***

The American Psychological Association (APA) defines resilience as the process of adapting well in the face of adversity, trauma, tragedy, threats or significant sources of stress. The ACEs study has given rise to the field of resilience research. This body of work suggests that rather than focusing on risk and deficits, social and behavioral science should instead examine what has worked for people.

The APA shares a list of findings for successfully building resilience that includes;

- Making connections
- Avoid seeing crises as insurmountable problems
- Accept that change is a part of living
- Move toward your goals
- Take decisive actions
- Look for opportunities for self-discovery
- Nurture a positive view of yourself
- Keep things in perspective
- Maintain a hopeful outlook
- Take care of yourself

The APA findings also include additional ways to build resilience, such as meditation and spiritual practices.

The ongoing and historical trauma in Indian country may not yield to such scant suggestions. Historical trauma encompasses a complex series of events driven by colonial forces in their quest to dominate North America. They created waves of devastating public practices and policies that very nearly wiped us out. The

boarding school era was one of the most devastating engines of these policies. The schools helped create generations of traumatized children who often grew into adults with little experience in parenting and loads of unresolved grief and trauma. Many people medicated the pain with intoxicants or obscured it with rage, denial and other destructive ways.

The APA guide's passing mention of spirituality as a means for building resilience, then holds special meaning for Native peoples as we address trauma, historical and otherwise, in our communities. In his book, *Healing the Soul Wound*, Eduardo Duran stresses the importance that spirituality plays in the world view of Native peoples. He insists that successful healing and resilience building efforts must include strong elements of spirituality. He argues that mainstream mental health practice and spirituality are not as far apart as one might imagine. He notes that the root of the word psychology is literally "study of the soul." He further argues that psychology and the practice of psychotherapy is enmeshed in spiritual metaphor. If clinical mental health interventions are to be successful among Native peoples, the therapy must be tied to its spiritual root.

When Maria Yellow Horse Braveheart, PhD first described the theory of historical trauma for Native peoples in the 1980s, she argued that the most effective methods of healing must emerge from within tribal communities and draw from traditional ways of knowing and spirituality.

Increasingly, mainstream mental health care professionals are beginning to consider the notion that spirituality is an important element of good health. In a study recently published in *The Permante Journal* researchers explore the role that culture and spirituality play in healing trauma among Native peoples. In the article, "Our Culture is Medicine: Perspectives of Native Healers on Post trauma Recovery Among American Indian and Alaska Native Patients, the authors interviewed several traditional Native healers.

According to the researchers, "Indigenous means of treatment through culture may include any or all of the following: language, traditional foods, ceremonies, traditional values, spiritual beliefs, history, stories, songs, traditional plants and canoe journeys."

"Research is discovering that mindfulness and spirituality engages the brain's medial pre-frontal cortex, the part that experiences trauma," notes Mary Vicario, clinical counselor and researcher at Finding Hope, a Cincinnati based mental health professional training and consulting firm.

Vicario notes the work of Rochelle Dala PhD from the University of Nebraska-Lincoln. In Dala's study of prostituted women who successfully left prostitution, she found that 100 percent credited new, found spirituality as a basis for their success.

Such interventions may not be easy to measure and study or yield themselves to the creation of evidence-based practices. Most federal health care funding supports only those interventions that are backed by mainstream medical research and evidence based practices, considered the standard for acceptable mental health treatment.

“Although the impact of spirituality and mindfulness may be harder to study, it doesn’t mean they don’t work the best,” Vicario said.

In the coming months, I will describe the theory of historical trauma, emerging science of trauma’s impact on our minds and bodies and “evidence based practices” that health care professionals are using to help people.

Additionally, I will tell the stories of individual and community healing efforts in Indian country that, although not evidence-based, hold great promise.

My hope is that this project will provide insight into the depth of trauma in Indian country and shine a light on innovative ways that people are using to heal the soul in their communities and travel the road to *weweni*. This can best be done in the Native way, that of stories told by those who are living the journey. I’ll leave you with one more such report.

### ***Crisis Mode***

During my trip to Bad River, I attended a gathering of residents and employees of the tribes social services department. According to the employees, the department is operating in “crisis mode” as they struggle to help the growing number of drug-affected babies born to tribal members. “In the past year, 1.3 of our babies on the reservation is born affected by drugs. Half of those infants are addicted to narcotics at birth,” noted Essie Leoso, director of Bad River Social Services.

The problem, she explained, is not confined to the Bad River Reservation. According to Leoso, in 2013 all of the babies born addicted to narcotics that were being served by the neo-natal unit at the Duluth Hospital were Native American.

Marylu, who works part-time in the social services administration office is seated with me during the gathering; she was visibly worried. “What will become of our people in the future? Who will care for all these children when they grow into adults with special needs?” she asked to no one in particular.

The gathering was part of the department’s efforts to reach out to the community for answers to this growing epidemic. I asked if learning about history such as that of my grandma’s experience at Sister School would help in such a crisis.

“Addressing historic trauma is a big piece in recovery (from addiction),” Leoso said.

“It would help give them a sense of the bigger scheme of things. Many of our young people are hopeless and think this is just the way it is supposed to be. Knowing the history would help them realize that powerlessness and low self-esteem are not part of our identity as Native people.”

Unfortunately, only one or two social services clients attended the gathering.

Later that evening I joined several ladies in a community sweat. My relatives did not have the luxury of this ceremony. If they did so, it would have had to have been done in secret. It felt good to pray for them there.

