

Article

The Wisdom of and Science behind Indigenous Cultural Practices

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Abstract: Conquest and colonization have systematically disrupted the processes by which Indigenous communities of the Americas transmit cultural knowledge and practices from one generation to the next. Even today, the extended arm of conquest and colonization that sustain oppression and culturicide continue to inflict trauma upon Indigenous people. Yet, current scientific research now attests to how Indigenous cultural practices promote healing and well-being within physical as well as mental health domains. This examination addresses Indigenous cultural practices related to storytelling, music, and dance. In drawing from evidence-based research, the case is made for not only restoring these practices where they have been disrupted for Indigenous people but that they have value for all people. The authors recommend reintroducing their use as a means to promote physical, spiritual, and mental well-being while recognizing that these practices originated from and exist for Indigenous people.

Keywords: indigenous wisdom; disrupted attachment; cultural restoration; well-being

In our tribal traditions when a woman carried a child, she was protected from anything disruptive such as violence. Everyone in the community ensured that the expectant woman experienced tranquility and calm so that when the child was born, the child would be even tempered and peaceful.

Statement by Connie Reitman-Solas, Pomo
Executive Director, Inter-tribal Council of California
CSUS Multicultural Conference, 27 February 2017

1. Introduction

Reitman-Solas made this statement at a conference that the authors were co-presenting. This statement is supported by recent epigenetic research. At the time she imparted this cultural practice, I was teaching a graduate level human development class for counselor education students and had just shared a journal article with my class (Douthit and Russotti 2017) that discussed the transaction between biology and environment. The article emphasized how changes in the environment alter our biology and explained how multiple threats undermine physical as well as mental health. The field of epigenetics provided further insight throughout the article and stressed the impact of the environment to the child in the mother's womb. Ultimately, the mother's physiology impacts the unborn child's development which, in turn, has the potential to alter the child's trajectory.

The article confirms that modern-day science has acquired the knowledge and language to describe what the Pomo already knew. The scientific terminology is fetal programming, but it describes an Indigenous Pomo cultural practice. Both modern science and the Pomo encourage us to protect the environment of the expectant mother. Science provides insight to the Pomo cultural practice which yields greater appreciation for the custom. In brief, transmission of the mother's stress hormones

elevates the risk of the unborn child developing anxiety disorders or attention-deficit/hyperactivity disorder (ADHD). Similarly, if the unborn child is exposed to prenatal famine, a physiological adaptation is set into motion. Subsequently, the unborn child is marked by the (mis)treatment of the mother. This brings us to a greater appreciation for the fact that the Pomo not only knew about the reciprocal relationship between biology and environment, but mindfully incorporated care for the next generation from the moment of conception.

This integrated Pomo cultural practice is but one example of advanced knowledge. What must be considered, however, is that this knowledge is not necessarily available to people outside of the tribe as often oral traditions and customs are only accessible to those still holding the knowledge and passing them on to the next generation. Yet, despite depth of awareness of the transactional nature of biology and environment, disruption to Indigenous culture at the hands of the relentless forces of conquest and colonization have subsumed and deprecated Indigenous knowledge and wisdom. Although initial impact transpired from approximately 150 to about 500 years ago, the persistent denigration of Indigenous cultures and way of life continues to adversely impact the well-being of Indigenous people today (Dunbar-Ortiz 2014; Forbes 2008; Lindsay 2012). Subsequently, cultural practices and knowledge that were transmitted from one generation to the next, which ensured the mental health and well-being of the unborn child at an epigenetic level, have been interrupted and lost in many cases. The unborn child, instead of benefitting from a nurturing, stable and calm environment, is consequently endangered by the adverse effects of the mother's trauma. Once her community is subjected to chronic violent and hostile attacks such as forced relocation, dislocation, acts of genocide, family disruption, and culturicide, the generational pattern reproduces chronic family and community dysfunction (Fenelon 1998).

The authors are both professionally and personally interested in addressing family and community dysfunction due to our background in public education. As educators, the health and wellness disparities in our educational system due to historical processes are evident. Recognizing that the pathways to healing are often situated within the communities that we serve, it is critical to acknowledge and celebrate what we know is of value and of worth. Despite cultural marginalization, the resilience of Indigenous communities gives the next generation a pathway forward if we allow ourselves to recognize and honor practices that have been subsumed over time. The authors are actively engaged with Californian Indigenous communities in promoting Indigenous knowledge and practices not just for Indigenous people but for all of our children in our communities. This restorative experience lends itself to recognizing how cultural practices can promote healing between people who have been historically in conflict.

Exposure to external and persistent threats changes the nature of relationships within a community. Where there may have been practices that maintained cohesive, peaceful, and deeply rooted ways of being, these practices become secondary when outside pressures force change. Harmony with oneself, one's community, family, and with the environment are disrupted. The energy that was once directed toward sustaining harmonious and reciprocal ways of life is re-directed by the necessity to make survival the primary focus. This shift for individuals and communities who have experienced historic trauma potentially has long-term adverse implications which can be viewed from a human development perspective:

If an organism is stuck in survival mode, its energies are focused on fighting off unseen enemies, which leaves no room for nurture, care, and love. For us humans, it means that as long as the mind is defending itself against invisible assaults, our closest bonds are threatened, along with our ability to imagine, plan, play, learn, and pay attention to other people's needs. (Van der Kolk 2014, p. 76)

For the Pomo and for all the other American Indigenous nations, adaptation to a hostile world has been necessary in order to ensure survival. However, this does not mean that the cultural wisdom that sustained community, familial, and individual well-being and cohesiveness are completely annihilated. It is often assumed that Indigenous nations no longer exist. Often, they are completely omitted from

the historical narrative ([Reclaiming Native Truth 2018](#)) and if referred to, they are often spoken about in the past tense ([Roscoe 1991](#)). Yet, many Indigenous cultural practices that sustain mental, physical, and spiritual health have survived, are embodied, and still practiced today. Embraced by Indigenous mental health professionals and critical scholars ([Duran et al. 2008](#)), there is a direction toward holistic practices that address spiritual needs. Subsequently, as we revisit Reitman-Solas's statement and widen our focus to identify these practices, we can recapture and restore the holistic wisdom inherent in Indigenous cultures. This wisdom has value in the modern era where appreciation for such practices has been lost, and in many cases, forcibly eliminated.

While Western science uncovers and comes to appreciate what was already known and practiced by America's Indigenous people, the adverse impact of trauma upon Indigenous communities, the land, the environment, and to the unborn child continues to resonate. For this reason, it is critical to reclaim and understand the benefits of Indigenous practices and sensibilities that instill resilience, recovery, and the holistic restoration of a healthy environment into which the unborn child enters. To this end, this manuscript explores a sampling of cultural practices rooted in various Original Nations from the Americas. These practices examine the contexts of storytelling, music, and dance while acknowledging the inter-relationship with modern day science. Ultimately, where historical disruption has created harm at the individual, generational, and community levels, restoration of proven practices can reverse the damage inflicted on Indigenous communities and still be of value for non-indigenous populations as well. This value is now being corroborated by Western science.

2. Western Nouveau Science

Evidence-based scientific research corroborates the biological and psychological benefits of Indigenous cultural practices. This survey provides scientific substantiation of Indigenous cultural practices for several reasons. Yet, before discussing science, it is important to note that Indigenous practices do not require scientific validation. For those living and practicing their culture, the worth of these practices is self-evident and does not require external validation. Instead, recognition of the inherent wisdom of Indigenous cultural practices is vital due to the fact that: (1) the value of the practices and their capacity to promote cohesion and well-being have gone unrecognized; (2) Indigenous cultures have been denigrated and subsequently misunderstood, which calls for a correction of false portrayals; and (3) the wisdom embedded in Indigenous cultures is as valuable today and for the future as it was in the past. With an understanding and appreciation for the benefits of these practices, there is cause for restoring and maintaining well-being from the personal to the community level.

Mental health and medical practitioners recognize trauma and the multi-generational transmission of trauma as a major issue. The landmark study known as the Adverse Childhood Experiences (ACE), first conducted between 1995 and 1997, demonstrated how stressful traumatic childhood experiences lead to chronic health challenges. These traumatic childhood experiences include abuse, neglect, and household dysfunction such as witnessing domestic violence or growing up with family members who have substance use disorders. Inclusively, these developmental threats may lead to a wide range of health problems throughout a person's lifespan, including those associated with substance misuse, and also have the potential of being re-transmitted from one generation to the next ([Van der Kolk 2014](#)).

Disrupted attachments, as one of the adverse outcomes of historic trauma, calls for optimal approaches that are not only strengths-based but culturally responsive. To this end, Canadian Professors [Haskell and Randall \(2009\)](#) acknowledge the importance of employing traditional as well as modern day approaches:

An approach which deeply engages both the knowledge and insights gleaned from the developments in the research on neurobiology, neuroscience, attachment theory, and developmental psychology, with the wisdom and traditional aboriginal approaches to mental health, can only be a richer one. ([Haskell and Randall 2009](#), p. 91)

This standpoint respects the practices of Indigenous people that were intact before wide-scale conquest and colonization hit the Americas. It also recognizes that, when and wherever possible, we can recapture and apply healing approaches for people today who continue to experience assaults upon their well-being. It is also acknowledged that enculturation, the “socialization process through which individuals learn and acquire the cultural and psychological qualities of their own group” (Erford and Hays 2018, p. 6) is an active process. Mental health practitioners and Indigenous community leaders can collaboratively pursue ways to restore and maintain harmony in communities into which future generations are received.

To this end, author Gloria Bird (Ortiz 1998) addresses the pain inflicted upon Native people raised on reservations. She also provides insight regarding how to move beyond victimhood and suggests that people “... focus less on the perceived pain that has been handed down through the generations and more on the larger issue of decolonization of the mind that comes with identifying the source of the pain in order to be free of its power over us” (Ortiz 1998, p. 30). The emphasis is on developing critical understanding of what has transpired over the course of the last 500+ years to invoke psychological liberation. In doing so, the “ability to imagine, plan, play, learn, and pay attention to other people’s needs” is heightened, which then improves one’s ability to constructively engage with the world (Van der Kolk 2014, p. 76). It is for this reason that we recognize and honor Indigenous knowledge, starting with the traditional wisdom cultural practices in order to maintain the long term well-being of Indigenous communities.

3. Honoring Traditional Wisdom

Cultural invasion (Freire 2018) enacted upon the people of the Americas has attempted to psychologically subjugate people when and where conquest and relocation did not succeed in its effort to accomplish absolute genocide. In the attempts to subjugate and conquer Indigenous communities, “the assumed inferiority of American Indians has perpetuated negative stereotypes and images to those who have come to call the United States their home” (Borunda and Martinez-Alire 2014, p. 31). Subsequently, if a community lacks personal, material, cultural and social resources, its capacity to constructively respond to trauma and its lingering impact may be compromised (Collins and Collins 2005). Recognizing that intergenerational trauma is “the effects of and responses to traumatic events (which) can become ‘transmitted’ across generations” (Haskell and Randall 2009, p. 52), the absence of protective resources that buffer the damage from traumatic events increases the potential for self-destructive behavior. Similarly, horizontal violence, harm enacted upon one’s own families and community, can become a debilitating statistical reality (Freire 2018).

Fortunately, not all was lost during the sustained efforts to eradicate and subjugate Indigenous communities. Many Indigenous cultures endeavored to form and sustain collective identities whose existence would endure the challenges of time (Florescano 1999). This resilience was sustained by the singular goal of ensuring survival of the collective by passing down practices and knowledge as an inheritance to future generations. These practices were intended to not only sustain Indigenous collective identity, but also to foster continuity. The multiple means by which this generational transmission took place is testament to the prescience of Indigenous elders:

To transmit the messages of one group to others, the ancients invented a variety of languages. The physical, oral, and visual were the first languages to transmit the collective experiences, and the means most efficacious to pass on the acquired knowledge for the generations to come. The initial forms of written language came about centuries much later, barely 500 years ago. (Florescano 1999, pp. 13–14)

Traditional knowledge was, thus, sustained by a variety of communication systems, not restricted to one means. These systems consist of physical language as evident in dance, and by the use of oral traditions in which stories are shared over the generations. They also include the varied sounds of

music that promote healing and bond humanity through rhythms, harmonies, and melodies. These communications convey not only what a people have experienced and endured, but also transmit embedded lessons and narratives that guide future generations.

Finally, ceremonies and rituals were, and in many cases, continue to be conducted at sacred sites that were constructed or identified in natural surroundings. These ceremonies provide a collective experience and identity that is grounded in time and place. In acknowledging the multiple languages by which Indigenous cultures embedded their cultural values, while simultaneously recognizing the scientific rationale behind the cultural practices, we develop insight. This insight leads us to understand, appreciate, and learn from the wisdom of Indigenous ancestors who left a rich legacy for future generations including the practice of storytelling that will be elucidated in the next section.

4. Restoring Culture and Affirming Identity through Oral Tradition

Silko (as cited in [Ortiz 1998](#)) describes how Pueblo people transmitted culture through storytelling. In a chapter entitled, "Through the Stories We Hear Who We Are", she explains Pueblo practices:

... depended upon collective memory through successive generations to maintain and transmit an entire culture, a worldview complete with proven strategies for survival. The oral narrative, or story, became the medium through which the complex of Pueblo knowledge and belief was maintained ... everyone, from the youngest child to the oldest person, was expected to listen and be able to recall or tell a portion of, if only a small detail from, a narrative account or story. Thus, the remembering and the retelling were a communal process. ([Ortiz 1998](#), pp. 8–9)

Similarly, the Mexica (also known as Aztec), are known for highly valuing children. They invested in their children because they believed that doing so was the optimal way to live beyond one's lifetime. For this reason, children were provided an education that emphasized "respect for all people and things, self-discipline, self-knowledge and fulfilling one's *tonalli*, or destiny, were the key points of traditional Aztec schooling" ([Mini 2000](#), p. 82). Subsequently, educating children was one of the main ways to demonstrate care and deep appreciation for the next generation. Ensuring the well-being and stability of their culture meant specifying and controlling the narrative conveyed from one generation to the next, so that children would value and live in a harmonious relationship with themselves and with their community.

Fortunately, we already have excellent examples of how Indigenous people have employed the use of narrative for the purpose of protecting their psychological well-being, as well as differentiating their own set of values from those of the colonizers. The prolific trickster stories from the Spanish colonial era in Mexico depict humorous accounts in which the impoverished protagonist, Pedro de Ordimalas, uses his wit to outsmart greedy and mean-spirited outsiders who fall for any scheme that involves getting rich. These stories are just as relevant today in conveying adaptive strategies for survival and resilience in the aftermath of conquest and colonization. Within these narratives children learn that wit is vital for survival and that a life guided by materialism is vapid, short-sighted, and undesirable. In the end, they learn that intelligence and a life free of possessions, like that of Pedro, is superior to that of the colonizer ([Vigil 2000](#)). The stories teach the value of a life grounded in respect for self and for community, and also convey that materialism and greed are undesirable and culturally incongruent. Despite the passage of time, these post-conquest era stories can now be found in print and can be shared with the next generation for the purpose of restoring cultural values where historic disruption has broken the chain of oral tradition.

In addition to the sharing the stories that have survived cultural disruption and have found their way to the printed word, there is a range of mediums by which to repair the broken processes in which cultural values and traditions are transmitted. [Johnson \(2014\)](#) indicates four ways in which the Ojibwe people are working to restore their culture:

Traditionally, Ojibwe people passed on their cultural traditions orally to encourage the individual's spiritual, intellectual, physical, and emotional growth from one generation to the next. One way to restore some of the cultural ways in an informal setting is by home-based schooling, when the parents teach their children. Another way is one-on-one transmission through mentoring activities, passing on traditional skills by sharing knowledge in arts, crafts, hunting, fishing, and medicine. Another way is the interactive talking circle, a small group where people can share and process healing in traditional ways. A more formal way of learning traditional ways is by attending conferences or workshops, attending traditional institutions, and attending some of the community cultural events like powwows, community feasts, and art shows. (Johnson 2014, p. 22)

The stories and narratives that affirm positive identity and proper humanistic values are in our midst. Concerted efforts to restore the lines of communication that promote well-being could be strategically placed in order counter the debilitating messages given by those who propagate divisive and debilitating rhetoric. Additionally, the power of the pen, when in the hands of Indigenous authors, can wield tremendous strength and buttress resilience. For example, Yazzie (2014) first novel, 'Her Land, Her Love,' weaves cultural lessons into the story. While the reader follows the life of Ninááníbaá, a woman whose family suffers but survives the Navajo Long Walk of 1865, critical lessons are shared throughout the novel, as in the following excerpt:

Ninááníbaá remembered back to an early age, when she was taught to be careful of the words she spoke. She learned to be deliberate in her speech at all times. Words were never spoken to hurt another person. A person should only speak words that are good. It is useless to speak words that hurt, were the teachings Ninááníbaá heard all through her young life. If someone voiced an expression out of meanness, the Naabeehó elders were close by, weighing the words spoken, and a long lecture by the elders followed a mean or angry statement. (Yazzie 2014, p. 27)

This culturally imbedded lesson from the Diné, also known as the Navajo, conveys how we are to speak to one another (and how we are not to speak to one another). It guides the nature of community relationships by establishing and then reinforcing the manner in which people are expected to communicate. The scientific support for this vital practice is discussed by Van der Kolk (2014), who explains the impact of insults from a neurobiological framework: "We remember insults and injuries best: The adrenaline that we secrete to defend against potential threats helps to engrave those incidents into our minds. Even if the content of the remark fades, our dislike for the person who made it usually persists" (Van der Kolk 2014, p. 176).

The aforementioned Diné lesson provides valuable wisdom that is of relevance today, as continuous insults are hurled from the person occupying the highest elected office in the United States and unrestrained abusive language is shared by preteens and adults alike on social media. Such insults stamp a neurological imprint on the receiver, creating a dissonance that collectively pollutes and impedes our capacity to live in harmony and in good relations with one another. Yet, the Diné and other Indigenous communities recognize and value the importance of weighing one's words before delivering them to the world. With acknowledgement and strategic restoration of these lessons and narratives, families and communities have the potential to rebuild and strengthen the next generation's resilience to outside threats.

Narrative therapy, one of many counseling approaches employed by psychotherapists today, "assumes that culture, language, relationships and society contribute to the way that individuals understand their identities and problems and make meaning in their lives" (Phillips 2017, p. 27). This approach recognizes that the narrative which a community conveys to its children is vital to their well-being and sense of identity. Thus, it is disconcerting when the culturally proscribed narrative has been usurped and maligned because doing so causes adverse impacts on the individual, the community, and subsequent generations. This has been the case in the Americas as colonizers have summarily

manipulated and conveyed a psychologically damaging narrative in order to control Indigenous people. In losing control of the narrative, Indigenous people are subsumed in a reality that is not only demoralizing, but that propagates divisive and destructive behaviors within that reality (Borunda and Moreno 2014).

Fortunately, the language of music provides an alternative form of communication by which to seek balance and well-being.

5. Music as Medicine

The Mayan story entitled “The Murmur of the River, How Music Came to the World” tells how the Mayan gods knew that “their creation of Earth and people would forever be unfinished if the people never had music in their hearts. Music would help the people of the Earth to remain joyful throughout the hardships of life” (Vigil 2000, p. 66). To correct the absence of music, the god Ah Kin Xooc was given a sound by each god who had contributed in the creation of the Earth. The collected sounds were “the sound of lament, the sound of complaint, the sound of truth, the sound of forgiveness, and the sound of joy” (Vigil 2000, p. 66). The story indicates that these sounds were released upon Earth and brought joy and sadness to the hearts of the people. In turn, the people were so moved by the profound beauty of the sounds that they took it upon themselves to make instruments that imitated the sounds and, from that point on, were able to make their own music.

A key feature of this story speaks to the gods giving people music for “the heart” and of music serving as a means by which to overcome “hardships.” In essence, this conveys an understanding that music has healing properties that are beneficial for addressing physiological and emotional contexts. This understanding is recognized, today, as a profession called music therapy (Levitin 2013). Yet, for thousands of years, Indigenous cultures have incorporated music in their rituals and ceremonies (Densmore 1926) with one of the primary instruments used by Indigenous cultures being the flute.

Wiand’s doctoral study (Wiand 2001) not only highlighted the historical background and uses of the Native American flute but she studied the healing effects of the Native American flute for people diagnosed as having dissociative disorders. The researcher describes this disorder as “a process of dis-association of parts of the self from the self . . . a defense against remembering the overwhelming trauma and its related affects” (Wiand 2001, p. 1). Wiand discusses the impetus for employing music in addressing this particular disorder:

Music has been used for “healing” since the beginnings of recorded history. On the most basic level, it is used to promote a state of relaxation. In ancient spiritual traditions and in shamanism, which is believed to be one of the oldest known forms of healing, music is used to access altered states of consciousness (i.e., trance states) to facilitate “healing”. (Wiand 2001, p. 2)

Wiand (2001) ascertains that Native American tradition possesses a cosmological view that recognizes the healing properties of music in restoring balance and wholeness to individuals. Music restores wholeness to those who have experienced a fragmentation, and subsequent disassociation, from themselves. The application of sacred sound to the disassociated individual embraces traditional knowledge that recognizes energy from sound as a flow that can restore harmony and balance within the body and the soul. In applying this foundational understanding to her study, Wiand confirmed what Native Americans have known for thousands of years.

In brief, Wiand’s study focused on two groups of people, one group consisted of individuals diagnosed with dissociative disorder and the other without such a diagnosis. Within these groups, some were exposed to either Native American flute or they were exposed to placebo music. Those who heard the Native American flute reported reduced anxiety, a significantly greater increase in perceptions of interconnectedness, and an increase in universal interconnectedness. These results confirm the significance of a cultural practice that is only now being recognized by modern science.

Similarly, a plethora of studies ([Levitin 2013](#); [Armstrong 2016](#)) speak to how music travels through neural pathways and activates various sections of the brain. Whether it is a pleasurable melody or engaging rhythm, there is a correlated response that releases endogenous opioids such as dopamine or prolactin into the body. Given these biological benefits we can understand not only why there is a recognized field called music therapy but also its impact. [Wiand \(2001\)](#) confirms the healing aspects of one of the oldest instruments in the world, explaining, “It is being rediscovered by the medical and psychological communities what the spiritual and ancient cultures have known all along, that music and sound do in fact have a significant impact on the physical, emotional, and spiritual aspects of the individual” ([Wiand 2001](#), p. 22).

While music, in general, and the Native American flute, in particular, possess qualities that promote healing, the concerted use of music for individual and community connectedness has far-reaching implications. Where such practices have been disrupted the sounds can be restored. In line with the concept of restoring human bonds with one another within a community context, the following section elaborates on another cultural practice that promotes collective healing.

6. The Power of Movement/Dance

[Luna \(2011\)](#) examines how Danza, the sacred-ceremonial Mexica (also known as Aztec) dance, serves as a cultural product that maintains Indigenous identity of Xicano/a people throughout the Americas. The affirmation and protection of Indigenous identity is critical as the forces of assimilation attempt to denigrate and strip the uniqueness of Indigenous cultures. She explains how the healing properties of this physically artistic and spiritual expression asserts “self-determination as the cornerstone of decolonization” ([Luna 2011](#), p. 7). Luna indicates that the performance of Danza, similar to Indigenous dances across the continent that have been carried on for hundreds of years “creates a living, on-going connection to history, demonstrating to students that we exist” ([Luna 2011](#), p. 10). In this cultural practice, the repetition of the ceremonies, rituals, and movement by generations of Indigenous people across the continent affirms a meaningful connection to those no longer here and to those yet to come. These expressions provide a sense of rootedness for the dancers while also giving life and meaning to future generations who follow the same steps of those before them.

Luna recounts her own experience with the first time she attended a Danza practice. She describes the moment in which she was “hearing the drum” which drew her to the circle of dancers and “feeling a need to be there, as if it was where I had always belonged” ([Luna 2011](#), p. 17). This calling to be a part of a collective experience in which movement, sound, ceremony, and ritual are dominant features is described as a manifestation of “genetic memory” ([Esteva and Prakash 1998](#)), a feeling shared by other *danzantes* in which being near the drum becomes the central force.

In Danza, as in many other Indigenous cultures that still engage their communities in collective movement, science is not separate from the practice. For example, the traditions from which Danza emanates is described as a “complex philosophical belief and practice” and serves as a “religion” (or spirituality). In doing so, science and spirituality are not separate but are, instead, viewed holistically in a collective experience that incorporates mind, body, and spirit. Within this holistic and ceremonial experience, highly mathematical and calculated dance steps are infused with scientific meaning and metaphor, meant to both imitate and affect the natural world while telling stories that explain natural phenomena. Luna describes the richness imbedded in Danza as “movement and human expression of natural and cosmic phenomena, creating consciousness and a connection between participants themselves and with the delicate balance, equilibrium, and harmony of the Earth and universe” ([Luna 2011](#), p. 89).

With this description of the multi-layered meaning behind Danza we could similarly apply its benefits to the culturally grounded dancing of many Indigenous communities. As such, the implications of Danza and other such culturally grounded movements in the mental health field are apparent. In the treatment of post-traumatic stress disorder, movement is recognized as

one of three “bottom-up” approaches, and is recommended in regulating the amygdala, the emotional center of the brain. The other two approaches consist of touch and sound.

The explanation for how movement addresses emotional states is addressed by understanding the mind and body connection. When an individual has experienced but not processed an inflicted external harm, their sense of safety is compromised. Consequently, this heightened state of threat can precipitate the emotional center to overreact to perceived threats. When the amygdala is engaged through movement, the symptoms to the perceived threat are minimized. In the collective experience of culturally sanctioned dancing, the positive associations that include human connection and community engagement become apparent (Van der Kolk 2014).

Danza, as a living embodiment of culture and relationship, is further described by Luna (2011) as a ritual performance that employs all the senses and makes manifest the memory of a people. This, in turn, creates meaning and purpose. Luna also provides further perspective about Danza that underscores the scientific meaning and purpose for the practice, “Once one learns the dances, they no longer have to recall the steps or patterns. The memory is in the body and the dance becomes a meditation” (Luna 2011, p. 94). With access to this bottom-up approach, the body’s stress responses are regulated in a holistic, as well as culturally responsive and identity affirming practice.

7. Conclusions

Multiple elements of Indigenous cultures have been discussed in this manuscript for their wisdom in restoring well-being. Scientific analysis further explains how these practices address the physical and mental health of individuals and communities, which validates the application of these practices in the modern era. In the face of historic disruption where these practices no longer exist, the recognition that the web can be repaired is vital in restoring cultural values and integrity. These practices have far-reaching implications for both people of Indigenous identity and for all those who lack connection to self, to community, and to the Earth. They are valuable lessons for all of us who now call this land home.

As we revisit Reitman-Solas’ statement, we see how mindful consideration of how we relate to even the unborn child has generational and far-reaching impact. The wisdom inherent within Indigenous cultures existing in our midst contain opportunities to heal trauma and sustain well-being. In doing so, focused teachings can be revived as we look to generate a healthy and vibrant society. While the contexts of storytelling, music and dance were discussed and supported with their application in the here and now, there is much more that can be recaptured in our quest to promote well-being. Considering that these three practices, from a holistic perspective, are interrelated by virtue of their capacity to redefine a person’s connectedness with self and with others, the strength of their overlapping impact is undeniable and powerful. Future generations depend not only on our awareness that this wisdom exists but depend on our active commitment to the restoration and sharing of Indigenous cultural practices.

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