
**FROM AMBIVALENCE TO REVITALIZATION:
NEGOTIATING CARDIOVASCULAR HEALTH BEHAVIORS RELATED
TO ENVIRONMENTAL AND HISTORICAL TRAUMA IN A
NORTHWEST AMERICAN INDIAN COMMUNITY**

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Abstract: Cardiovascular disease is the number one cause of death among American Indians and Alaska Natives (AI/AN). Utilizing narratives from members of a Pacific Northwest tribe, this paper explores perceptions about behaviors affecting cardiovascular health through tribal members' lived experiences related to place-based environmental historical trauma. Findings from narrative analysis indicate that ambivalence is an effect of historical trauma and complicates the adoption of protective cardiovascular health behaviors. Tribal narratives indicate a path to overcome this ambivalence stemming from historical environmental trauma through revitalization, adaptation, and re-integration of traditional cultural practices to contemporary contexts. By creating their own health promotion response, one that is not imposed or colonizing, tribal members are re-generating cultural practices and health behaviors associated with lowered risks of cardiovascular disease.

INTRODUCTION

Cardiovascular disease (CVD) is a relatively recent phenomenon in American Indian and Alaska Native (AI/AN) communities. AI/AN communities historically reported low rates of CVD (Howard et al., 1999; Howard et al., 1995; Nelson et al., 1990; Rhoades, Rhoades, & Welty, 2000). Since the 1990s, however, incidence rates and CVD-related mortality and morbidity have drastically increased among this population (Brega et al., 2011; Bonow, Grant, & Jacobs, 2005; Lising, 1998; Witmer, Hensel, Holck, Ammerman, & Will, 2004; Rhoades, 2005). This historically unprecedented increase in CVD and related diseases among AI/ANs exceeds the incidence, morbidity, and mortality rates for CVD among the U.S. population at large (Moore et al., 2014). AI/AN populations face elevated risk for CVD due to high rates of smoking, hypertension, high

levels of stress, low levels of physical activity, high cholesterol, and diabetes (Brega et al., 2011; CDC, 2015; Harris, Nelson, Muller, & Buchwald, 2015; Jamal et al., 2016; Rajkumar, Fretts, Howard, Yeh, & Clark, 2017). The prevalence of stress is at the helm of these CVD risk factors. AI/AN-specific stressors include exposure to early life trauma, which is linked to the development of depressive and anxiety disorders, including post-traumatic stress disorder (Libby, Orton, Novins, Beals, & Manson, 2005); higher risk for racial discrimination (associated with higher diastolic blood pressure and greater risk for hypertension; Thayer, Blair, Buchwald, & Manson, 2017); and disruptions to social and cultural lifeways through forced assimilation and urbanization, which are perceived by AI/ANs to contribute to risk behaviors including interpersonal violence, substance misuse, and poor nutrition (Evans-Campbell, 2008; Walters, Beltrán, Huh, & Evans-Campbell, 2011; Walters, Mohammed, et al., 2011). While scholars have begun to examine the influence of these stressors on CVD and related diseases among this population, the impact of historical and environmental traumas and their relationship to contemporary trauma, stress, and CVD are under-explored in AI/AN communities. Recent studies have found that disruptions to place-based relationships are associated with emotional distress and impact health and mental health outcomes (Ferreira, 2006; Walters, Beltrán, et al., 2011; Whitbeck, Adams, Hoyt, & Chen, 2004), and the impact of historical environmental traumas on CVD risk among AI/AN communities offers promising new insight on this public health issue.

For many Indigenous peoples, the notion of *place* is embedded in a profound relationship with ancestral lands and intricate sociocultural and spiritual connections to complex webs of creation. The very definition of health and well-being for Indigenous people is intimately connected with place. Often referred to by Indigenous scholars as “Original Instructions” (Deloria, 1992, 1995; Pierotti & Wildcat, 2000), traditional cultural codes of conduct that have shaped tribal health practices are intimately tied to the land, such as hunting and gathering methods, seasonal dietary shifts, land management, and physical engagement with the natural world. Moreover, place and land-based practices are “integral to one’s sense of being which is also central to both individual and collective spiritual health and wellness,” whereas “loss of place (i.e., displacement) is akin to loss of spirit or identity” (Walters, Mohammed, et al., 2011, p. 173). As such, both historical and ongoing disruptions in social, cultural, and physical relationships with place are understood as negatively impacting health and wellness in Indigenous communities and have been cited by scholars as contributing factors to increased stress (Ferreira, 2006; Walters, Mohammed, et al., 2011; Whitbeck et al., 2004), a primary contributor to CVD risk among AI/AN peoples.

Throughout this manuscript, we use the term “place-based” to refer to historical and contemporary traumas associated with loss and revitalization of land/environment/health processes and outcomes.

Utilizing narratives from members of a Pacific Northwest tribe, this paper explores tribal perceptions about behaviors affecting cardiovascular health by examining lived experiences related to place-based environmental historical trauma. For the tribal members interviewed in this study, place is related to both well-being and disease, is historical and contemporary, and is centered somewhere in the middle of cultural disruptions and revitalizations that impact tribal health. In our findings, this ongoing vacillation between lost and reclaimed culture and relationships to place gives rise to a deep ambivalence that impacts tribal members in their decisions to engage in “healthful” cardiovascular behaviors (e.g., healthy diet, increased physical activity, stress reduction; Brega et al., 2011; Rajkumar et al., 2017; Thayer et al., 2016). This ambivalence arises as tribal members struggle to reconcile the complexities of what was, what is, and what will be as they negotiate place-based cultural practices related to cardiovascular health. In this paper, we focus on ambivalence as a tension in reconciling place-based historical loss, current place-based disruptions, and related changes in cardiovascular health behaviors. Our analysis of data from tribal narratives suggests a path to reconciling disrupted relationships to place by illuminating opportunities for adapting and re-integrating place-based traditional cultural practices to contemporary contexts. By revitalizing traditional cultural practices related to place, tribal members are identifying cultural health behaviors with great potential for improving cardiovascular health. Previous studies showing the empirical link between place-based trauma and CVD risk (Walters, Mohammed, et al., 2011; Whitbeck et al., 2004) have not yet illuminated the nuances of the processes leading to poor health and mental health outcomes. The examination of the role of ambivalence in these processes seeks to illuminate aspects of the complex mechanisms that are a part of negotiating place-based historical trauma and CVD risk factors.

Background

Cardiovascular Disease in Indian Country

The primary causes of CVD are the first (heart disease) and seventh (stroke) leading causes of death among AI/ANs (CDC, 2015; Heron, 2016). The strongest risk factors among AI/AN populations include diabetes and stress-related hypertension (Moore et al., 2014; Thayer et al., 2017). Diabetes rates are significantly higher among AI/AN populations and diabetes doubles to quadruples risk of heart disease, compounding risk for CVD (Moore et al., 2014). AI/AN peoples

also face greater risk for higher stress levels due to racial discrimination, which contributes another unique risk factor for CVD. Among AI/ANs, racial discrimination is associated with higher diastolic blood pressure and greater risk of hypertension (Thayer et al., 2017). Other general stressors linked to racial discrimination for AI/ANs that may contribute to CVD risk may include limited access to housing, employment, and health care (Krieger, 2012). Racial discrimination not only contributes to increased blood pressure, but is also linked to a constellation of additional risk factors across racial minority groups, including increased cortisol levels (stress hormones; Berger & Sarnyai, 2015; Thayer & Kuzawa, 2015), higher allostatic load (Brody et al., 2014), and lower heart rate variability (Wagner, Lampert, Tennen, & Feinn, 2015).

An emerging consideration of CVD risk is the impact of stressors related to relocation from original tribal homelands (Jervis, Beals, Croy, Klein, & Manson, 2006). These place-based stressors have been demonstrated in research examining anxiety and depression symptoms related to historical trauma (Whitbeck et al., 2004). Federal policies in the 1800s removed tribes from original homelands and placed them on reservations, often in vastly different environments and in places colonial settlers deemed unfit for habitation or use (Walters, Mohammed, et al., 2011; Whitbeck et al., 2004). These policies denied traditional hunting, fishing, and gathering practices and replaced traditional food sources with reliance on commodity foods consisting of dried beans, refined sugar, processed flour, and pig fat (Krohn & Segrest, 2010; Miewald, 1995). These historically-situated disruptions contributed to high-fat, high-calorie diets and low amounts of physical activity, and they persist today. Dominant, Western society continues to render multiple, pervasive assaults on tribal governments to gain control over land, water, minerals, and other raw materials (LaDuke, 1999; Nies, 1996; Smith & Frehner, 2010; Vickery & Hunter, 2016) through targeting tribal lands for dump sites, nuclear and weapons-testing, and resource extraction (e.g., Leonard, 1997; Hooks & Smith, 2004; LaDuke, 1999; Vickery & Hunter, 2016). Ongoing exploitation of ecological environments that contribute to sustainable health and food practices may also contribute to contemporary place-based stressors. In an examination of the Yurok Nation's resistance to militarized governmental regulations of their fishing rights, Mollie Rudd, a Yurok fisherwoman and activist, describes the stress related to compounding environmental assaults on one of the strongest risk factors for CVD—her diabetes: “My blood sugar goes up just to think of it” (Ferreira, 2006, p. 358). Furthermore, Native people are increasingly vulnerable to the impacts of climate change on food security, traditional knowledge, and tribal control of resources (Vickery & Hunter, 2016). As Native peoples are forced to assimilate and incorporate

predominately Western lifestyles such as high-fat, high calorie diets, and low amounts of physical activity, incidence of CVD escalates (Lising, 1998). Understanding historical trauma and its disruption to AI/AN relationships to place not only suggests AI/AN specific risk factors for CVD, it also suggests that the reconciliation of these relationships offers promising potential for lowering CVD risk among this population.

Historical Trauma and Place

Historical trauma is commonly defined as cumulative trauma occurring over the lifespan and across generations resulting from extensive catastrophic events aimed at specific communities (Brave Heart, 1999; Brave Heart, 2003; Duran, Duran, Brave Heart, & Yellow Horse-Davis, 1998; Evans-Campbell, 2008; Evans-Campbell & Walters, 2006; Sotero, 2006; Swinomish Tribal Mental Health Project, 2002; Weaver, 1999). Related social and cultural factors, such as stress caused by forced assimilation, urbanization, and cultural disruptions, are thought to contribute to problematic health behaviors (e.g., substance misuse, interpersonal violence, poor nutrition, and low physical activity) among AI/AN peoples (Evans-Campbell, 2008; Walters, Beltrán, et al., 2011). In general, AI/AN peoples report higher rates of interpersonal trauma and resulting post-traumatic stress disorder when compared to Whites in the U.S. (Bassett, Buchwald, & Manson, 2014). Post-traumatic stress disorder is linked to higher allostatic load for AI/AN adults, increasing their risk of CVD (Thayer et al., 2016).

Though little empirical data exists explaining the impact of environmental aspects of historical trauma, evidence suggests that historical loss of land affects both mental and physical health. In a study with elders from two reservations, Whitbeck and colleagues (2004) explored responses to historical losses and found that 18% of respondents thought about loss of land several times a day or at least daily. Additionally, 10% thought about loss associated with government relocation processes several times a day or daily, and approximately 16% thought about it at least weekly. These thoughts were found to have significant impact on emotional distress, particularly anxiety and depressive symptoms (Whitbeck et al., 2004). Similarly, in a study with urban two-spirit AI/ANs, Walters, Beltrán, Huh, and Evans-Campbell (2011) found that both historical and contemporary place-related stressors impacted overall physical and mental health outcomes. On average, participants thought about place-based traumas including forcible relocation from original Native lands and land loss weekly, and these thoughts were significantly associated with mental and physical health outcomes. Furthermore, these associations maintained significance when controlling for contemporary lifetime traumas such as childhood abuse and military combat

(Walters, Beltrán, et al., 2011). Building on these findings, this study contributes to a growing body of research connecting the impact of place-based historical and contemporary traumas to health, an important line of inquiry in the examination of cardiovascular health disparities among AI/AN populations.

METHODS

The research reported in this paper was part of a project funded by the National Institute of Health, National Heart, Lung, and Blood Institute (U01 HL87322-01). The Healthy Hearts Across Generations Project (həli?dx^w) was a 5-year development project with a Pacific Northwest tribe and the Indigenous Wellness Research Institute at the University of Washington to design and test a culturally appropriate, feasible, and generalizable CVD risk prevention program for American Indians in the Northwest. As a multi-phased mixed methods study, phase 1 included qualitative inquiry to elicit information from community members to determine their experiences with food (traditional indigenous and Western), nutrition, and exercise, as well as common barriers (historical, communal, familial, and individual) and likely facilitators to a CVD prevention program. The analysis in this paper presents findings from the phase 1 qualitative data and focuses on participant experience associated with cultural meanings and practices and barriers related to land, food, and physical activity.

Participants

The study used a purposive sampling strategy to assure that certain sectors of the tribal community were effectively represented (elders and parents with children under the age of 18). Criteria for inclusion required that participants be enrolled elders or adult tribal members with children under the age of 18 and primary residence on or within 20 miles of the reservation. Additional criteria required that participants be at risk for CVD via self-report (i.e., overweight, obesity, diabetes, hypertension, or inflammation disorder). The Project Director/Tribal Liaison identified potential participants who fit the criteria from within established community networks, and the Project Coordinator screened identified participants for inclusion in the study. Final qualitative data included 15 in-depth interviews. Thirteen of the 15 interviews included specific questions related to place and health and were included in this analysis. Of the interviews included in this analysis, participants ranged in age from 32 to 73 years old. Specifically, there

were six elders (ages 55-73 years) and seven parents (ages 32-55 years). One participant identified as both an elder and parent because of their role as a primary caretaker of grandchildren. The final sample included 3 men and 10 women.

Procedures

All aspects of the research in the Healthy Hearts project included several levels of research accountability and community engagement to assure cultural relevance. Before data collection began, a research protocol agreement was developed between the tribal community and the Institute, requiring that all study related materials, including surveys and interview guides, be reviewed and approved prior to implementation. The site Principal Investigator, a tribal member and community leader, was appointed by the tribe to ensure cultural accountability and adherence to the research protocol agreement and provided oversight of Project Director/Tribal Liaison activities relative to cultural protocols. The Project Director/Tribal Liaison sought guidance of community members and a community advisory board in developing study materials with researchers. Additionally, the research protocol agreement stipulated that all abstracts, presentations, or publications from study data be reviewed and approved by the Project Director/Tribal Liaison in collaboration with the site Principal Investigator.

After interview guides were approved, semi-structured in-depth interviews were conducted asking participants to reflect on their understanding and experience of the relationship between place and health (e.g., what is your relationship with the land and how do you feel it affects your health?). The interview guide also included questions about the cultural meanings of food, access to healthy food and physical activity, and parenting attitudes and interactions around eating and activity levels of children. All individuals conducting interviews identified as Native or Indigenous and included research faculty, staff, and graduate students. Interviewers attended an intensive two-day qualitative interviewing training with a manual developed specifically for the project and were given copies of the training manual and interview guides to review. Training modules included instruction on interview skills (establishing trust, listening, giving neutral feedback, using non-biased probes for clarification, and taking notes); informed consent; audio taping; addressing power, privilege, and oppression; recruitment; data management safety; safety protocol; and finally, the Healthy Hearts in-depth interview guide.

Research interviews were conducted at the Institute, the tribal health site, and various homes and community settings located on the tribal reservation. They generally lasted between

45 minutes and 2 hours, depending on the level of detail shared. Interviews were audio taped and transcribed by a professional transcriber. Həli?dx^w research staff then cleaned transcripts, which included crosschecking transcripts with audiotapes to ensure that transcription accurately reflected narratives. It also included de-identifying names, places, or specific events that might risk confidentiality. Pseudonyms were used to ensure confidentiality, and specific sociodemographic, geographic specificity, and tribal identifiers were omitted. Due to the small community size and confidentiality concerns, qualitative findings were presented to the general community in several community gatherings (e.g., tribal college presentation and tribal health conference presentation). Presentations shared broad thematic findings and received affirmation from community members of cultural credibility.

Analytical Approach

A common assumption of narrative inquiry is that telling stories is one of the primary ways people build and convey meaning (Mischler, 1986). It explores ways stories are told by considering the position/identity of the storyteller, arc and/or sequencing of events, relevant characters, starting and ending points, and revelations of specific events and details (Riley & Hawe, 2005). Narrative analysis allows researchers “to see different and sometimes contradictory layers of meaning, to bring them into useful dialogue with each other, and to understand more about individual and social change” (Andrews, Squire, & Tamboukou, 2013; p. 1). The use of loosely formed questions with guided probes allowed narratives of place/health relationships to unfold as experienced by each participant. Interviews were coded for salient story themes using an open coding process to establish broad primary narrative categories (e.g., disconnection from land). After the initial coding process was complete, an in-depth narrative analysis was utilized to illuminate more intricate story themes, allowing for subtle nuances of individual and collective narratives to emerge with particular focus on turning points in the narrative arcs.

Negotiating Ambivalence

We anticipated that tribal members would articulate instances verifying the idea that multiple forms of historical trauma (e.g., physical, cultural, spiritual, environmental) were related to experiences of *place* (land) and that these experiences affected their health on multiple levels

(e.g., mental, physical, spiritual). While initial assumptions held true, they did not capture the full depth and breadth of articulated experiences. The overarching narrative was one of profound *ambivalence*—tribal members often expressed contradictory feelings about their traditional, historical, and contemporary relationships to place, each other, and their health. However, there was also a turning point in the narrative arc across all interviews in which tribal members described a specific traditional ceremony that they connected to positive cardiovascular health behaviors. Within this turning point, ambivalence appeared to attenuate and narratives joined, offering insight into the ways in which culturally rooted and responsive health practices embedded in the ceremony could play a role in addressing CVD risk in AI/AN communities.

Ambivalence is a common human experience characterized by conflicting emotions toward a person or thing. It is expressed as the simultaneous experience of both positive and negative feelings that can cause individuals to feel pulled in different directions. The use of the term in psychiatry is attributed to Swiss psychiatrist Eugen Bleuler who first used the term to describe “negativism” and later argued that ambivalence is also a phenomenon of everyday life (Luscher, 2002). Moreover, Luscher (2002) describes ambivalences as “challenges to be responded to” (p. 587). Ambivalence has been found to be both a potential barrier in reducing alcohol misuse (Yuan et al., 2010), as well as a significant factor in resolving risky health behaviors including alcohol abuse (Spicer, 1997), tobacco use (Amos, Wiltshire, Haw, & McNeill, 2006; Toussaint, VanDeMark, Silverstein, & Stone, 2009), and eating disorders (Reid, Burr, Williams, & Hammersley, 2008) as contemplation of, readiness for, and resistance to change can co-exist simultaneously. The analysis presented in this paper is virtually the first to consider the role of ambivalence in AI/AN cardiovascular health within the literature. Themes emerging from tribal members’ narratives related to CVD illuminate dissonance between the cultural health practices of the past and conditions of the present. As Luscher (2002) says, “Insight into ambiguity of a concept is a motor for the development of new ideas” (p. 585). This ambivalence presents opportunities for identification and development of new approaches to cardiovascular health practices among tribal members.

RESULTS

Interrupting Original Instructions: Remembering What Was

Tribal members spoke of the value of land, loss of land, health, food, activity, cultural loss, and spirituality interchangeably and in both positive and negative terms. When asked specifically about the meaning of the relationship between land and health, an elder stated, “It means everything.” He continued by reflecting on the historical relationship to land while noting tensions to that relationship due to colonization:

We didn’t understand when they signed the treaty how a white man could own land because the land belonged to everybody, provided all these ingredients that feed you and support you in life. Even a tree, the cedar tree here made canoes or long houses. The roots made baskets. The bark made rope and clothes. We respected all that, you know, and it all come from the land. (CARL – ELDER)

Pearl, an elder, described her contemporary relationship with the land as a “very close relationship...very, very close relationship.” For several tribal members, this closeness was difficult to articulate, and because of the deep ancestral and ecological knowledge embedded in the specific locality of place, nearly impossible to explain:

Well, I think there’s a deep-rooted connection to the land. This is where we come from. This is where my ancestors are. And it’s just a very deep, more than I think other people would say. I lived here for generations, you know. For us, it’s like almost a birthplace. It’s a deep perspective that I don’t think you can put into words, because it has a lot of cultural and spiritual meaning that you can’t really say in the English language. (KAREN – PARENT)

This deep connection, so deeply rooted to render it almost impossible to describe, makes forced removal and loss of land such a harmful aspect of AI/AN history and the legacy of historical trauma and resulting losses of preventive health practices. It also leads to feelings of ambivalence as tribal members narrate their relationship to land as both extremely important and affected by historical trauma.

Ambivalent Kinship: Reconciling What Is

Throughout the narratives, there was consistent dissonance between the love of land and struggles associated with tending to the relational and health aspects of land in a context

of Western values and policies. Much of current daily life has been influenced or created by modern Western ideology, which has altered the infrastructure of traditional Native life (Stephens, Nettleton, Porter, Willis, & Clark, 2005). As such, many of the tribal members described difficulty living in accordance to original instructions regarding traditional, cultural land and health practices. Although the land was understood to have curative properties and be a source of “medicine” through medicinal plants and traditional healing ceremonies, tribal members described obstacles to accessing its healing qualities as access to traditional land has been impacted by development, pollution, and non-tribal “ownership.”

One participant’s description of the Bay located next to the reservation provides an illustration of this dissonance; while she described how drinking water on the reservation is risky to her health, she simultaneously could not imagine life away from the Bay. “I’m really not comfortable with the *drinking* water. But I think...living so close to the water...In my lifetime I cannot imagine living somewhere where there’s no water” (SARA – PARENT). Elder Cora remarked that even the smell of the drinking water evokes fear for health: “It’s getting scary how our land and our water...You can’t even hardly drink out of your own faucet without thinking it smells real bad sometimes... smells so much of chlorine.” This regard for water, while also dealing with unsafe drinking water, demonstrates a dissonance that leads to feelings of ambivalence among tribal members.

Contemporary Western ideology and lifestyles are oriented to time, progress, and products while those of Indigenous peoples are oriented to relational qualities of place (Pierotti & Wildcat, 2000; Walters, Beltrán, et al., 2011). This contrast created ambivalence for tribal members who want to live in accordance to their cultural values, yet bound by current context must act against those values:

Without the land, the water, and the air, I don’t think we’d be able to exist. Yet, on the other hand, without our vehicles we wouldn’t be able to exist either, but that does a lot of contamination with our vehicles and we could have things happen with our car that would contaminate the soil and the water. We have to watch out what we do with our land, and even at our own homes, our HUD homes, we can’t dig around in there because we don’t know if we’re gonna run into the wires or the pipelines or whatever. So there’s not very many things that we can do any more. Before we were given a place to live, we could do anything we wanted with our land. Like a long time ago, they used to bury [relatives] right in their backyard. [Families had] their own cemetery. And there’s only very few places now that people do live with their own people buried in the backyard. (CORA – ELDER)

Not only are people unable to engage in traditional cultural practices on their land, the land also holds painful memories of historically traumatic events and related disruptions in family and social cohesion, a noted outcome of historical trauma (Evans-Campbell, 2008). While Karen described “political dirtiness” and “getting attacked by your own family members” as a painful part of being on tribal land, she also described the reservation as the place where those same family members come together to pray and celebrate.

You know what? It's both good and bad for me. It's like one of the worst places for me, and it's one of the best. It's one of the worst, because it has historical trauma here. And it has the boarding school. It has like death on the roads. It has dead relatives. It just has the hard aspects. Political dirtiness. The trying to fight for tribal rights, but the struggle... And it also has the ceremony when tables come together and people celebrate. It also has that aspect, that we know we're family. We know we're connected, and we love each other. We come together when we need to. But it's also very devastating when you're going through a hard time like say, your job, because these are your family and, you know, get attacked by your own family members. It's harder. (KAREN – PARENT)

Reconciling these conflicts and the resulting ambivalence within relationships is complicated. The ways tribal members relate to the land and, consequently, to each other continue to be affected by colonization, ongoing imposition of Western ways of being, and complex experiences of historical trauma—stressors which may increase tribal members' risk for CVD.

The Impact of Western Development on Indigenous Health

Development has also impacted the ability to maintain traditional healthy living for most Native peoples. When asked how the relationship to land affects physical health, some tribal members responded by talking about destruction of land and prioritizing of development. One elder stated: “It's changing so much. You can't do what you used to do 'cause everything's changed. And the land developers are doing everything to destroy the ecosystem” (CARL – ELDER). Indigenous peoples have a history of sophisticated technology that worked in cooperation with the land. “In the places they lived and with their awareness of the Earth as a living organism, Native people developed sophisticated technologies to make their lives easier and more efficient” (Cajete, 2000, p. 188). Native communities had industries such as mining, irrigation, agriculture, and even transportation; however, in contrast to many contemporary industries, they used the land so that it could regenerate (Cajete, 2000). The tribe involved in this

study, for example, previously had successful sustainable fishing and timber industries that worked in accordance to the seasons and ensured ongoing abundance (Krohn & Segrest, 2009; Thrush, 2000). Carl explained changes to the land as a result of colonization and subsequent industry:

Well, you know we conceded all this land to the United States government, and they raped our resources. Like this used to be a great, great timber industry and fishing industry, and they destroyed it all. You look at the mountains, you won't see no more trees. You look in the water, you don't see no more salmon. (CARL – ELDER)

Modern development and the resulting disconnection from traditional healthy behavioral practices changed the way people obtain and prepare food and thus, how they relate to it:

It's just different now from when I was growing up. It really is. *It used to be part of us* and we used to hunt, fish. They'd kettle mussels and sit there [by] the fireplace and now it's all different. (SUE – ELDER)

Tribal members also discussed the impacts of colonization on food preparation and physical health:

People around here... everything's fried if you go in their [homes]. [Before] my cousins, they were growing their food, they were canning all these fruits. You don't see that anymore. They go to [the grocery store] and buy the junk food. What do you call that? Top Ramen? They don't have time. And it's so busy here. I've never had that stuff...the ingredients... all salt. (SUE – ELDER)

Sue explained that the traditional food and cooking practices she learned from her elders have been replaced with processed and fast food:

I just learned [from] my grandfather [who] hunted. He had fruit trees. We grew our own chickens and my mother made bread. We used to pick the berries... And I don't see 'em doing that anymore. Now it's through [the grocery store]. We used to eat everything off the land, eat the berries, the cherries. I don't think we had microwaves. We had the old wood stoves, we cooked out of it, [we'd] make bread in the oven and it'd come out perfect. I think it's all the fast food they're eating. (SUE – ELDER)

These experiences associated with Western land development and imposition of Western diet and eating behaviors anchor tribal narratives in a space of loss and diminishing opportunities for healthy cardiovascular behaviors. While these elders retain some traditional knowledge of

healthful land and diet practices that could be shared with community, a subtle sense of helplessness to affect positive cardiovascular health behaviors was expressed, leaving them in a space of ambivalence between loss and possibility.

Transcending Ambivalence: Negotiating Integration of Original Instructions through Cultural Revitalization

While tribal members articulated cultural loss and disruption, they also described pride in their survival and hope for a better future for their people. Although vacillation between struggle and strength was prominent throughout all the interviews, there was a narrative turning point when tribal members were asked to reflect upon strengths associated with tribal relationships between land and health. In this instance, all responses emphasized the importance of revitalization of traditional customs, including practices related to cardiovascular health (e.g., diet, physical movement, spirituality). Specifically, each participant described the importance of the First Salmon Ceremony in relation to land and health.

In 1974, the Boldt decision gave Washington Tribes the right to co-manage fishing in tribal areas and to keep 50% of harvestable fish (Brown, 2005). Revitalized in 1979 after the U.S. Supreme Court upheld the Boldt decision, the First Salmon Ceremony is an annual ceremony honoring the seasonal return of salmon and tribal fishers. Including ceremonial songs and dances, tribal members begin the ceremony by welcoming a traditional canoe carrying the “first salmon.” The salmon is then carried to a communal dining area where a salmon feast is offered to the community. When the meal is concluded, the bones of the first salmon are carried back to the water by canoe (Amoss, 1987; Brown, 2005).

Even when participants did not describe themselves as having traditional cultural knowledge, every participant in this study described the First Salmon Ceremony as an important and unique cultural event related to traditional health practices. One participant explained how learning cultural traditions could help tribal members understand and achieve greater respect for the natural environment and consequently, their own health:

What they call the Salmon Ceremony...is a cultural event every year with the first salmon. They catch salmon, bring it up, and will say a prayer. I didn't grow up with any of that but as far as the community knowing language and knowing stories of our ancestors, say creation stories or things like that, learning the culture would help people to respect earth and to respect their bodies. (MICHELLE – PARENT)

There was also pride that young people were beginning to understand the implications of the ceremony. This parent's description of her experience with her children suggests that intergenerational learning about traditional practices is valued by tribal members and, as such, may be an opportunity for integration in revitalization efforts in addressing cardiovascular health:

We go to the salmon ceremony every year and this year is first year that [my children] actually understood what we were doing it for. Before they just thought it was fun to go dance and sing. They were just more aware of what they were doing this year. Before they would say, "Well, why are we sending the (bones) back out there, Mom?" And no matter if I explained it to 'em or somebody else explained it to 'em they just never really got it, but this year it finally clicked for both of 'em. That the fisherman go out and get that first salmon and bring it in and cook it and they bring the bones back out there so the bones go back to the other salmon out there and say they treated 'em so well. So they end up having lots of salmon for the year. So this year they finally figured out what it was all about 'cause they actually came and told me. They were more proud of what they were doing and just having that understanding. (SHERRY – PARENT)

One elder explained that the First Salmon Ceremony practiced today is not exactly in the same form it was practiced in the past. Although she expressed some disappointment in the loss of the older forms, she seemed to understand that the changes were part of a necessary cultural renewal. While some traditions were maintained within families, some of these practices are now being re-introduced as community events and norms, demonstrating contemporary adaptations of traditional practices.

I've noticed this is happening at a lot. Like when they have the Salmon Ceremony and they're giving back. [They're saying] thank you for giving us [life]. Before it was like only a family thing. Make sure you say, "thank you," you know. That's what we were taught. But now I see that a lot of the teachings...are becoming more normal now. (ROSE –ELDER)

In the steps tribal members take to reconnect and integrate original teachings into their lives, they open the possibility for traditional cultural health practices conducive to the promotion of cardiovascular health to return to their daily lives. Embedded within traditional cultural practices are values related to active physical engagement with the land or natural environment, improved nutrition (e.g., inclusion of salmon or other healthful traditional foods), spiritual practice, and increased sense of social cohesion and cultural pride. As elder Pearl says, the time is ripe for the return of old ways into the here and now:

So, you know, there's all kinds of medicine, herbs out there for us. And I think that the time is going to come when we are going to have to go back to our old ways and learn. (PEARL – ELDER)

This elder suggests that effective approaches to addressing cardiovascular health may already exist in tribal communities and that revitalization of the “old ways” may be used to inform innovative prevention and intervention efforts. The acceptance and integration of traditional practices becomes one way to address and attenuate ambivalence in tribal members’ relationships to land and health.

DISCUSSION

Interrupting Indigenous culture by removing people physically, spiritually, psychologically, and socially from their original lands is to remove them from their original tribal preventive and curative cardiovascular health behaviors. Deliberate historical policies aimed at genocide and assimilation into Western culture has made it difficult to reclaim original health practices centered on interaction with the land. This disruption and the resulting tension between what was and what is gives rise to great ambivalence, complicating tribal members’ ability and motivation to make decisions related to diet, exercise, and cultural traditions that promote optimum cardiovascular health. Additionally, current Western prevention and intervention approaches to cardiovascular health have failed to address the more nuanced aspects of health risk behaviors including the role of historical trauma and resulting disruptions in traditional health practices and have done little to impact the overall CVD morbidity and mortality rates in AI/AN populations.

Tribal narratives from members of this Pacific Northwest tribe demonstrate that ambivalence is a noticeable effect of historical trauma and land displacement. This analysis focused on ambivalence as a precursor to revitalization of traditional cultural practices as expressed in tribal narratives. This analysis illustrated that despite its relationship to trauma and displacement, ambivalence provides an opportunity to collectively examine and identify healthy behaviors inherent in tribal customs. As the narratives moved toward identifying and adopting traditional cultural practices such as including traditional foods into diet as well as ceremony and ritual, ambivalence was attenuated. The stories became shared examples of tribally advocated behavior that adopt and adapt traditional cultural practices that have potential for improving cardiovascular health through integration of place-based cultural practices such as eating

healthful traditional foods, increased physical activity through participation in traditional practices, practicing traditional ceremonies, and engaging multiple generations in sharing health knowledge.

Limitations

There are several limitations to the analysis reported in this paper. While the project completed 15 in-depth individual interviews, only 13 were usable, as 2 of the interviews were incomplete or left out the specific questions related to place/land and health. This small number of interviews reduces the variability in responses and consequently may have omitted important additional and/or alternative narratives. Additionally, the use of a purposive sampling strategy can impact the range and diversity of experiences represented in a sample as it focuses on recruiting individuals who provide specific knowledge and experience related to the research questions (Etikan, Musa, & Alkassim, 2015). While the participants may be “information-rich” (Etikan et al., 2015, p. 2), the nature of non-random sampling is subjective and may be a biased selection of participants, therefore may not be representative of the entire community. All of the participants were recruited by the Project Director/Tribal Liaison, and as such, all participants were known through the liaison’s professional and community connections which also may have impacted the type and variability of narratives included. Some people may have been missed who have entirely different experiences and worldviews. As this phase of the research focused on elders and parents, younger people were not represented in the sample, which may have obscured variability of narratives that exist amongst generational cohorts. These limitations could be addressed in future studies by including adolescents and young adults, and also increasing the number of parents and elders. Additional solution-oriented questions could be included to identify concrete sustainable cardiovascular health solutions for communities as an entry point for developing a community-based intervention pilot program.

Implications for Health and Promotion Practice

Western scientific approaches largely look toward individual-level behavior to explain and address CVD. Most recommendations are aimed at lifestyle and behavioral modifications including increased physical activity, dietary modifications, and possible use of anti-obesity pharmaceuticals (Wilson, Gilliland, Moore, & Acton, 2007). Rather than focus on individual-

level behavioral changes and Western prescriptive health promotion models, some Indigenous scholars advocate for interventions that contextualize historical trauma while also integrating Indigenous knowledge and cultural practices into contemporary health interventions (Schultz, Cattaneo, et al., 2016; Schultz, Walters, Beltrán, Stroud, & Johnson-Jennings, 2016). For example, Yappalli – The Choctaw Road to Health project is an obesity and substance use risk prevention and health leadership program rooted in a curriculum based on traditional clan systems and includes re-walking portions of the Trail of Tears, the path of the Choctaw Nation of Oklahoma’s forced removal. Revisiting the site of this historically traumatic event (forced removal from homelands) addresses grief and the legacy of removal on contemporary health disparities. Using a health leadership model based on traditional teachings, this project simultaneously addresses these legacies and their current impacts on tribal member health. Participating in this intervention encourages tribal members to craft their own innovative responses to obesity-related health conditions such as CVD.

Furthermore, health promotion and interventions to address CVD with AI/AN communities should consider approaches that focus on community-level (vs. individual-level) models of behavioral health change. An example of a community-level health promotion model can be seen in the Canoe Journeys of the Pacific Northwest. While primarily focused on substance use risk reduction, this annual event has emerged as a community-led effort to address healing and recovery of traditional cultural practices among the region’s tribes. Participation in the Journey includes increased physical activity, attention to healthy behaviors, and revival and maintenance of traditional culture through building and pulling of the canoes. Canoes were vital for gathering food, social relationships, and for framing culture (Johansen, 2012). Similar to the Salmon Ceremony described by participants, this is an example of a community-level effort led by tribes with potential to affect CVD-related risk factors, such as diet and physical activity, as well as connect to traditional health behaviors that support cardiovascular health.

Findings from this study suggest that in addition to integrating Indigenous knowledge and practices into health promotion and intervention efforts, researchers and community members must attend to the tensions created by ambivalence that result from living with historical and contemporary traumas. Furthermore, those working to address cardiovascular health disparities among AI/AN communities must also address healing from the grief and ambivalence resulting from historical and contemporary traumas associated with loss of land and environmental destruction. Understanding complex experiences of historical traumas and the resulting

disruption of relationships to place/land and health through tribal narratives reveals subtle nuances often expressed as ambivalence in adopting health behaviors that promote optimum cardiovascular health. Illuminating the ways that tribal members re-integrate traditional indigenous practices into contemporary contexts may offer cardiovascular health promotion models that are both culturally relevant and sustainable as they truly emanate from within tribal cultures.

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