THE CULTURE IS PREVENTION PROJECT: ADAPTING THE CULTURAL CONNECTEDNESS SCALE FOR MULTI-TRIBAL COMMUNITIES

Janet King, MSW, Paul Masotti, PhD, John Dennem, MA, CADC-II, Shir Hadani, MSc, Janice Linton, MLS, Bonnie Lockhart, MSW, and Jami Bartgis, PhD

Abstract: The Culture is Prevention Project is a multi-phased community-based participatory research project that was initiated by six urban American Indian and Alaska Native (AI/AN) health organizations in northern California. Issues driving the project were: i) concerns about the lack of culturally informed or Indigenous methods of evaluating the positive health outcomes of culture-based programs to improve mental health and well-being; and ii) providing an approach that demonstrates the relationship between AI/AN culture and health. Most federal and state funding sources require interventions and subsequent measures focused on risk, harm, disease, and illness reduction, rather than on strength, health, healing, and wellness improvement. This creates significant challenges for AI/AN communities to measure the true impact of local strength and resiliency-based wellness programs. This paper focuses on the methods and results from Phase 3 of the Culture is Prevention Project where we adapted the 29-item Cultural Connectedness Scale (CCS), developed in Canada, to be appropriate for California’s multi-tribal communities. The resulting new Cultural Connectivity Scale – California (CCS-CA) was developed by urban AI/AN people for urban AI/AN people. The process, instrument, how to adapt for your community, and implications are reviewed.

INTRODUCTION

For American Indians and Alaska Natives (AI/ANs), culture is a social determinant of health, in which loss is a risk factor; whereas, strengthening or re-connecting to culture are protective factors on multiple levels (Chandler & Lalonde. 1998; Menzies & Lavallee, 2014, Walters, Beltran, Huh, & Evans-Campbell, 2011). Health for Indigenous people has been negatively affected by hundreds of years of colonization and historical traumas (Ehlers, Gizer, Gilder, & Yehuda, 2013; Burton, Matthews, Leung, Kemp, & Takeuchi, 2011; Walters,
Mohammed, et al., 2011; Brave Heart & DeBruyn, 1998). One of the more recent federal assimilation policies impacting the communities in this study is the Relocation Act of 1956 which began moving large numbers of Indigenous peoples off reservations and into cities throughout the United States. San Francisco, Oakland, Los Angeles, San Jose, and Sacramento were among the cities in California that Indigenous peoples were removed to. The Relocation Act resulted in California becoming the home for many out-of-state tribes in addition to the many Indigenous tribes of California.¹

The long term consequences of colonization and government relocation policies included the loss of land and disruption of the practice of culture (Snowshoe, Crooks, Tremblay, Craig, & Hinson, 2015; Stamm & Stamm, 1999; Brave Heart & DeBruyn, 1998). Other consequences included down-stream historical trauma and subsequent high rates of ill-health (e.g., physical, mental, and emotional) and poor social conditions (Evans & Davis, 2018; Snowshoe et al., 2015; Walters, Mohammed, et al., 2011; Brave Heart & DeBruyn, 1998). Supporting this assertion is that pre-dating colonization, Indigenous people maintained wellness for thousands of years through culturally-based practices where the environment, mind, body, and emotional health were known to be linked to collective human behavior, practices, wholeness, and hence, wellness (Brave Heart, Chase, Elkins, & Altschul, 2011; Walters, Beltran, et al., 2011). Health in AI/AN communities was known to be a result of living in the community; participating in traditional ceremonial practices which involved foods, medicines, songs, and dances; and revering the land and all of her inhabitants as relatives. For generations, Indigenous people have practiced what we now call “Population Health,” where traditional practices promoted health for all community members by increasing collective strengths and decreasing inequities (Menzies & Lavallee, 2014; Tucker, Wingate, & O’Keefe, 2016).

The traditional Indigenous holistic approach to health is much different compared to the Western individualistic approach to reducing risk or illness (Singer, 2009; Reading & Wien, 2009; Arquette et al., 2002). Despite the evidence that culture-based practices sustained Indigenous peoples’ health and community-wellness for many generations (Mooney, 1890; Reading & Wien, 2009), the dominant culture historically has demonstrated an unwillingness to understand, value, or learn from what Indigenous peoples have been practicing for centuries. Instead, the focus of health care has been on Western epistemology and the Western medical model with subsequently

¹ In this paper we use Indigenous or American Indian/Alaska Native [AI/AN] interchangeably to represent the original peoples of North America prior to colonization.
different approaches than Indigenous people to decision-making, health, risk assessment, and evaluation (Bartgis, 2016; Ellerby, McKenzie, McKay, Gariépy, & Kaufert, 2000).

The Western medical model and government responses to the health and social disparities experienced by Indigenous peoples have not been effective at addressing health and, in many circumstances, have been poorly received and even harmful (Tucker et al., 2015; Walters, Mohammed, et al., 2011; McCormick, 1995). A result of the historical disrespect by the dominant culture was a poor understanding of the important determinants of health for Indigenous peoples such as the strong and interdependent relationships between health, cultural traditions (Powell & Gabel, 2018), spirituality, and the connection to traditional land, diets, language, and community (Wilson, 2003; Waldram, Herring, & Young, 2006; Lavallee & Poole, 2010; Levy, 2018). This has served to contribute to the ineffectiveness of many Western modalities in reducing health and social disparities for Indigenous communities (Lavallee & Poole, 2010; Bala & Joesph, 2007).

Another example of the difference, or “lack of understanding,” by the dominant culture regarding producing Indigenous health is reflected in the different approaches to measuring health or wellness. Indigenous peoples focus more on building strength, resiliency, relationships, and community capacity; whereas, the dominant culture focuses more on decreasing individual illness/disease or risky behaviors without or with little examination of the environment producing risky behaviors and ill health (Gone, 2013; Walters & Simoni, 2002; Walters, Beltran, et al., 2011; Walls & Whitbeck, 2011). This difference then creates a cultural worldview “clash” (Bartgis, 2016). Driving this clash is that historically Indigenous knowledge and traditional ways of knowing were rarely considered or valued as important in health and healing. Supporting this assertion is the 128-year old statement from Mooney: “The Native practices of healing and their healers have been regarded as lacking any more knowledge in the field of herbal healing or practice than an ordinary housewife in the late 19th Century” (1890, p.45).

More recent examples illustrating this include government funder requirements to use “evidence based practices” (EBPs) where: a) the practices and/or instruments were not developed by and for Indigenous persons; and b) the practices/instruments were not tested in multiple culturally different Indigenous communities. Thus, it was not well known if the EBPs were effective or harmful. In addition, and until recently (such as with the California Reducing Disparities project), the dominant culture also did not demonstrate much willingness to understand or consider community-defined evidence practices as being evidence-based and deriving from equally valid methods based upon hundreds of years and multi-generational observations.
Indigenous and dominant cultural differences in evaluation also exist. For example, government project officers or university-based researchers typically find it difficult to accept that the community programs reduce substance abuse (and subsequently support mental health/well-being) without specifically measuring and demonstrating reductions in substance use. However, Indigenous communities, such as the partner communities in the *Culture is Prevention Project*, argue that programs that strengthen or reconnect to culture achieve those outcomes as a result of the strengthening of Indigenous culture and that the supporting evidence (in part) is that substance abuse was not an issue prior to colonization. We do know that both traditional knowledge and recent research has linked culture as a protective factor for better health and social outcomes for Indigenous peoples (Snowshoe et al., 2015; Garroutte et al., 2003; Gone, 2013; McIvor, Napoleon, & Dickie, 2009; Pu et al., 2013; Walter & Simoni, 2002; Whitbeck, Hoyt, Stubben, & LaFromboise; 2001). Given this, we argue that culture is a determinant of health and that strengthening or reconnecting to culture can then be considered both an important program objective and program outcome that then could be measured.

**Background and Context**

The *Culture is Prevention Project* is a 6-phased project (See Table 1) that derived from a Substance Abuse and Mental Health Services Administration (SAMHSA) funded project intended to address youth alcohol and prescription drug abuse and in general, per the SAMHSA mission statement, the impact of substance abuse and mental health. The *Culture is Prevention Project* was initiated because of concerns expressed by the 30-person Community Advisory Workgroup comprised of staff and community members from the six participating urban AI/AN health organizations. Specifically, the workgroup members were concerned about the program evaluation questions required by SAMHSA. Workgroup members and the participating Indigenous health organizations understood that the purpose of the funding was to reduce alcohol and prescription drug abuse in youth. However, the programs being delivered by the organizations were broad in purpose, scope, and objectives and expected outcomes. All fit into the Center for Substance Abuse and Prevention (CSAP) strategy type *Alternative Drug Free Activities* (USDHHS, 2017), where the interventions were further described by the partnering health services organizations as *Alternative Drug Free Activities – Traditional Culture-Based Activity/Ceremony*. There were
concerns that some of the strengths and outcomes of interventions that were considered important by the providing communities were not of interest or being addressed by SAMHSA.

In addition, the evaluation questions required by SAMHSA do not identify or measure what make community-defined evidence practices work. For example, the required outcome measures addressed the use of alcohol and prescription drugs. Grantees were required to select one question from a list in each of the following three categories: i) consumption, ii) intervening variables, and iii) consequences. The Community Advisory Workgroup expressed concerns that the evaluation overly focused on alcohol and prescription drug use and did not place enough emphasis on Indigenous approaches and values. Specific concerns presented were that the measures/questions: 1) were not an appropriate method of evaluating if their programs improved health, resiliency, strength, and other positive outcomes in youth (i.e., they did not capture what was essential in culture-based alternative drug free activities programs); 2) were not aligned with traditional AI/AN strength-based approaches; and 3) that some questions were potentially harmful. For example, one of the required questions presented to the Community Advisory Workgroup that was considered potentially harmful came from the intervening variable list: “How do you think your parents would feel about you having one or two drinks of an alcoholic beverage nearly every day?” (USDHHS, 2017; Michigan Department of Health & Human Services, 2019). Concerns were expressed about the number of youth without one or both parents and also that introducing this question could induce a trauma response. As a result of the concerns expressed, the Community Advisory Workgroup directed the project staff to look for or develop more culturally appropriate evaluation tools: thus, the genesis of the Culture is Prevention Project.

Table 1

<table>
<thead>
<tr>
<th>Phase 1</th>
<th>Consensus Generating Workshop</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phase 2</td>
<td>Literature Search &amp; Knowledge Synthesis</td>
</tr>
<tr>
<td>Phase 3</td>
<td>Adapting the Snowshoe Cultural Connectedness Scale (CCS) for in Multi-Tribal Communities in California</td>
</tr>
<tr>
<td>Phase 4</td>
<td>Pilot Testing/Validation of the Cultural Connectedness Scale – California (CCS-CA) and Evaluation of the Relationship between Culture and Mental Health</td>
</tr>
<tr>
<td>Phase 5</td>
<td>Exploring the Predictive Properties of the CCS-CA</td>
</tr>
<tr>
<td>Phase 6</td>
<td>Cultural Connectivity, Integration, Health (Physical/Mental), &amp; Health Services Utilization</td>
</tr>
</tbody>
</table>

A primary goal was to develop and implement a more culturally informed approach to demonstrating that the programs being delivered were achieving their objectives which included:
a) increasing and strengthening connection to AI/AN culture, values, history, teachings, and community; b) increasing skills; and c) building empowered, strong, and resilient youth. This community-based participatory research (CBPR) project is guided by a theory of change that the building and strengthening of Indigenous culture supports the development of youth to be resilient, emotionally and mentally healthy, and thus, less likely to engage in destructive behaviors such as alcohol/substance abuse and suicide.

**Phase 1 & Phase 2**

Overviews of Phases 1 and 2 are illustrated in Tables 2 and 3 below. A unique characteristic of the *Culture is Prevention Project* relates to the CBPR approach. The project started with direction from and continued involvement of the Community Advisory Workgroup. The results from Phase 1 logically supported the Workgroup’s decisions to develop and initiate Phase 2, where again the results from Phase 2 guided the initiation and methods for Phase 3, the focus of this paper.

**Table 2**

<table>
<thead>
<tr>
<th>Phase 1 Consensus Generating Workshop</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Participants</strong></td>
</tr>
<tr>
<td><strong>Research Questions</strong></td>
</tr>
<tr>
<td><strong>Methods</strong></td>
</tr>
<tr>
<td><strong>Results</strong></td>
</tr>
<tr>
<td>Cultural Identity</td>
</tr>
<tr>
<td>Empowerment</td>
</tr>
<tr>
<td>Resiliency</td>
</tr>
<tr>
<td>Generosity</td>
</tr>
</tbody>
</table>
Table 3: Phase 2 Literature Search & Knowledge Synthesis

<table>
<thead>
<tr>
<th>Research Questions</th>
<th>What is known from the existing literature about instruments developed by Native Americans for Native Americans that measure: 1) cultural identity/connectedness, 2) empowerment, 3) resiliency, and 4) generosity?</th>
</tr>
</thead>
</table>
| Methods            | Developed by a medical libarian specializing in Indigenous health research, the literature search included publications between 1990-2015 and focused on countries with similar histories of colonization: Canada, United States, New Zealand, and Australia (Gracey & King, 2009; Guimond, Lawrence, Mitrou, Cooke, & Beauvon, 2007).  
  Concept #1 (i.e., Indigenous people) – Keywords: "Native American*" OR "Alaska* native*" OR "native Alaska*" OR "first nations" OR "Ojibwa* OR Cree OR aboriginal OR dene OR tribal OR Cherokee OR Dakota OR Lakota OR Navajo OR Zuni OR Maori  
  Concept #2 (i.e., any type of survey or questionnaire used with the population or measure related to resiliency, strengths, assets, or indicators) – Keywords: Survey* OR questionnaire OR qualitative OR resilient* OR strength* OR asset* OR indicator*  
  Concept #3 (i.e., literature that was focused on youth, or that was used to measure drug or alcohol use, even if some or all subjects in the population were older) – Keywords: youth* OR adolescent* OR drug* OR alcohol  
  The literature search included Scopus (includes Medline/PubMed, Embase), PsycINFO, and other mental health journals and a host of interdisciplinary databases via EBSCO-host including: Academic Search Complete, Child Development & Adolescent Studies, CINAHL, Family & Society Studies Worldwide, Mental Measurements Yearbook, Social Work Abstracts, and Women's Studies International. It also included Bibliography of Native North Americans and grey literature (e.g., IHS reports and tribal research studies). It was decided to keep the search broad and to use an iterative process recommended for scoping reviews and data analysis (Arksey & O'Malley, 2005; Levac, Colquhoun, & O’Brien, 2010). |
| Results            | 2,809 references were identified and reviewed by the librarian. 262 abstracts met inclusion criteria and were reviewed and coded by the research team. 72 publications met full review criteria and were selected for full review and coding. The main result was that we found only one instrument developed by Indigenous persons for Indigenous persons that was designed to measure any of the four Phase 1 outcomes. This was the Cultural Connectedness Scale developed by Dr. Angela Snowshoe for First Nations/Indigenous youth in Canada that was designed to measure connection to culture (Snowshoe et al., 2015). |

Why the Snowshoe Study and the Cultural Connectedness Scale Were Important Findings

The Cultural Connectedness Scale (CCS) was developed in Canada by First Nations/Indigenous persons for First Nations/Indigenous persons. The 29-item CCS consists of three sub-scales: identity, traditions, and spirituality. A strength of Dr. Snowshoe’s and her colleague’s CCS is based in the development approach that was described as using an “Indigenous Quantitative Methodological framework” that embodies First Nations people’s stand point, in which community and strengths-based approaches are the core of the framework. The development of the CCS included three main stages: 1) item generation (i.e., items were generated using key informants interviews and youth and community focus groups, which resulted in the...
generation of 56 items); 2) judgment quantification (the 56 items were reviewed and evaluated by Indigenous/First Nation expert judges using a content validity index [Grant and Davis, 1997]); and 3) item selection (items were selected based on the review of rational expert judgments and the expert judgments’ feedback on the items). This stage resulted in narrowing the number of items to 45 items that were then examined using exploratory and confirmatory factor analyses to refine and develop the final 29-item instrument (Snowshoe et al., 2015).

Dr. Snowshoe validated the instrument in a sample of First Nations, Metis, and Inuit youth \((N = 319)\) living on-reserve (78%) and urban areas (22%) in Saskatchewan and Ontario, Canada. The three subscales demonstrated adequate score reliabilities with Cronbach’s alpha values: a) \(.872\) for Identity, b) \(.808\) for Spirituality, and c) \(.791\) for Traditions. The CCS criterion validity was assessed against proxy measures of well-being/mental health outcomes (See Table 4). Snowshoe et al (2015) reported that all correlations between the CCS subscales and their theoretically relevant measures were in the expected direction and were significant, demonstrating the CCS tool criterion validity. A conclusion in the study by Dr. Snowshoe was that culture is a determinant of mental health.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Identity</th>
<th>Traditions</th>
<th>Spirituality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Life Satisfaction</td>
<td>(.176^{**})</td>
<td>.006</td>
<td>(.136^{**})</td>
</tr>
<tr>
<td>Sense of Self in the Present</td>
<td>(.166^{**})</td>
<td>.131^{**}</td>
<td>(.136^{**})</td>
</tr>
<tr>
<td>Sense of Self in the Future</td>
<td>(.276^{***})</td>
<td>.097*</td>
<td>(.192^{***})</td>
</tr>
</tbody>
</table>

* \(p < .05\)  ** \(p < .01\)  *** \(p < .0001\)

Given the above, the CCS was an important find as it was an outcome directly requested by the Community Advisory Workgroup, which was to identify or develop an Indigenous evaluation instrument that was developed by Indigenous persons for Indigenous persons. The CCS was a most helpful start. However, following consultation by Dr. Snowshoe with the Community Advisory Workgroup, it was clear that the CCS was developed by/for communities that were much less multi-tribal compared to the San Francisco Bay area which has representation of over 100 North American Tribes (California Consortium for Urban Indian Health [CCUIH], n.d.). Given this, the Community Advisory Workgroup directed the project team to conduct the needed research.
to adapt the Snowshoe instrument to be appropriate for our more multi-tribal community. This then initiated Phase 3.

METHODS

Phase 3: Adapting the Cultural Connectedness Scale for Multi-Tribal Communities

The methods for Phase 3 derived from the results of Phase 2 and were guided by a consensus decision made by the Community Advisory Workgroup which was to implement an approach to modify the original CCS instrument to be a better fit for urban AI/AN persons in the San Francisco Bay area. Because there are 109 federally recognized tribes in California (CCUIH, n.d.), urban Californian AI/AN communities are more multi-tribal than the First Nations, Métis, and Inuit populations that the Snowshoe instrument was developed for and tested in. Therefore, a tool in California urban communities would need to be applied across very diverse communities with a wide range of cultural beliefs, norms, and practices. To determine how best to adapt the CCS, we developed four research questions to guide the process consisting of focus groups and key informant interviews. To achieve this, we presented the original 29 questions of the CCS to the participants. The adaptation in our area of California involved a slight modification of the CCS questions by substituting the original terms: “Aboriginal/FNMI” with “Native American” to be more appropriate for our communities.

Phase 3 Research Questions (asked in the focus groups)
1. What does each question on the Cultural Connectedness Scale measure?
2. How is the specific measure linked to Native American/Indigenous culture, identity, or spirituality?
3. What changes in the language are needed to make the question more appropriate for diverse Native American/Indigenous persons living in California?
4. What additions or changes are needed to the measures’ examples provided in CCS?

Overview

A series of five scripted focus groups were conducted at the participating AI/AN health services organizations in Oakland, San Francisco, Sacramento, and San Jose, and additional key informant interviews were conducted among AI/AN staff and community members (n = 20). The
focus groups were facilitated by an elder (and MSW) who was known by each community. Supporting the facilitator were two additional note takers in each focus group.

**Participants and Focus Groups**

Three adult focus groups were conducted. Adult participants were considered “key informants.” They were recruited by the participating Indigenous health organizations that sent formal invitation letters that indicated they were considered to be knowledgeable community leaders. Two youth focus groups (ages 12-17) were held. Youth participants were recruited from summer intern programs conducted by the health organizations. Youth assent was given verbally after being informed of the purpose of the project and their subsequent decision to participate. The total number of focus group participants across all the groups was 60, where the reported number of Tribal affiliations was 37 (see Table 5). Inclusion criteria included: a) participants self-identified as Native American/Indigenous and b) were identified as leaders in their communities.

We recognized that a sense of community ownership and support for the project were important. To facilitate this and to contextualize the project, the facilitator provided background information at the beginning of each focus group that included: i) indicating the project was initiated by the Community Advisory Workgroup that included staff from the local AI/AN health services organization; ii) introducing Dr. Angela Snowshoe as the Indigenous university professor/scholar in Canada who spent years working with First Nations/Indigenous communities to develop the original CCS with the objective of demonstrating that Indigenous culture/cultural connectedness is an important protective factor in the health of Indigenous persons; and iii) indicating that the participants were providing important contributions to the Culture is Prevention Project by helping adapt the original CCS instrument so it could also be used in multi-tribal communities to demonstrate that Indigenous culture is a protective factor in health.

<table>
<thead>
<tr>
<th>Table 5</th>
<th>Focus Group Tribal Affiliations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apache</td>
<td>Kiwa Pueblo</td>
</tr>
<tr>
<td>Blackfoot</td>
<td>Konkow-Maidu</td>
</tr>
<tr>
<td>Cherokee</td>
<td>Kootbah Indian Rancheria</td>
</tr>
<tr>
<td>Chickasaw</td>
<td>Lakota</td>
</tr>
<tr>
<td>Choctaw</td>
<td>Lumbee</td>
</tr>
<tr>
<td>Dine</td>
<td>Miwok Tribe of Ione</td>
</tr>
<tr>
<td>Hopi</td>
<td>Nashville El Dorado Miwok</td>
</tr>
<tr>
<td>Karuk</td>
<td>Navajo</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Data Collection and Analysis

Each of the three sub-scales in the 29-item CCS instrument were presented and addressed separately: i) identity, ii) traditions, and iii) spirituality (See Table 6). Some of the words in the questions were modified from the original to be more appropriate (e.g., “Aboriginal/FNMI” was changed to “Native American”). For each of the 29 questions on the CCS, we asked the same questions:

a. Do you find any of the wording in the question confusing or do you have suggestions for how the wording could be changed to be less confusing or a better fit (for multi-tribal communities in California)?

b. Are there some examples/measures that you feel are missing and should be added?

c. Are there some examples (e.g., linking to Native American/Indigenous culture, traditions, or spirituality) that you feel are not a good fit for our multi-tribal Native American/Indigenous Communities?

Participant Responses

Responses generated by focus group participants for each of the individual questions were documented by the facilitator and the two note takers using the “Note Takers Worksheet” that included the focus group questions to guide notetaking. After the first two focus groups (one adult and one youth), common themes/responses emerged and were used to modify/guide the methods in the following focus groups. It became clear there was a need to create “Examples Lists” to address the multi-tribal characteristics of the communities. For example, the original CCS questions asked respondents to link a personal characteristic or measure (e.g., knowledge, plan, activity, attitude, or perception) to a Native or Tribally specific activity or outcome. Results from the first two focus groups indicated that adapting the questions to be more multi-tribal was not going to be achieved by some minor changes to the language but more so by creating Examples Lists, which served to address the multi-tribal characteristics of our communities (see Appendices A & C). For example, I use tobacco for guidance was changed to I use ceremonial/traditional medicines (see Examples List #1 for guidance or prayers or other reasons (see Examples List #2). The Examples List 1 that was developing/growing between focus groups was titled, List #1 Ceremonial & Traditional Medicines, whereas the developing/growing Examples List 2 was titled, List #2 Uses of Ceremonial & Traditional Medicines.
Following the first two focus groups, results were then presented to the following three focus groups to address consensus. As with the previous focus groups, these participants were also asked the same questions for each of the 29 CCS original questions and were also asked to identify items that should be included in the growing Examples Lists.

Table 6
Original CCS Subscales

<table>
<thead>
<tr>
<th>IDENTITY</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>I plan on trying to find out more about my Native American culture, such as its history, traditions, and customs.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>I have spent time trying to find out more about being Native American, such as its history, traditions and customs.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>I have a strong sense of belonging to my Native American community or Nation.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>I have done things that will help me understand my Native American background better.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>I have talked to other people in order to learn more about being Native American.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>When I learn something about my Native American culture, I will ask someone more about it later.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>I feel a strong attachment towards my Native American community or Tribe.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>If a traditional person, Elder, or Clan Mother spoke to me about being Native American, I would listen to them carefully.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>I feel a strong connection to my ancestors.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>Being Native American means I sometimes have a different way of looking at the world.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td>It is important to me that I know my Native American language.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TRADITIONS</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>I use tobacco for guidance.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>I have participated in a cultural ceremony.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>I have helped prepare for a cultural ceremony.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Someone in my family or someone I am close with attends cultural ceremonies.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>I plan on attending a cultural ceremony in the future.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Examples for 2-5: Sweat lodge, Moon Ceremony, Sundance, Longhouse, Feast, or Giveaway)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>I have offered food or feasted someone/something for a cultural reason. (Examples: Spirit Plate, Thank You Ceremony)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>How often do you make tobacco offerings for cultural purposes?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>How often do you use sage, sweet grass, or cedar in any way or form?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>How often does someone in your family or someone you are close with use sage, sweet grass, or cedar in any way or form?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>I can understand some of my Native American language.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td>I have a traditional person, Elder, or Clan Mother who I talk to.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SPIRITUALITY</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>I know my cultural/spirit name.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>In certain situations, I believe things like animals and rocks have a spirit like Native American people.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>The eagle feather has a lot of meaning to me.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>When I am physically ill, I look to my Native American culture for help.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>When I am overwhelmed with my emotions, I look to my Native American culture for help.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>When I need to make a decision about something, I look to my Native American culture for help.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>When I am feeling spiritually disconnected, I look to my Native American culture for help.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
RESULTS

The main outcome from this phase was the development of a revised instrument, which we call the *Cultural Connectivity Scale – California* (CCS-CA) illustrated in Appendix C. Our main objectives were to modify the original CCS to be more appropriate for our multi-tribal communities, in our service areas in California, while attempting to maintain fidelity to the original CCS instrument by retaining all items (and subscales) and question intent.

Some minor language changes or terms were made to the original CCS. These changes reflected the different tribes and multi-tribal characteristics in our communities compared to the Snowshoe study. However, the main adaptive change was the addition of the six Examples Lists: 1) Ceremonial & Traditional Medicines; 2) Uses of Ceremonial & Traditional Medicines; 3) Traditional, Tribal, & Cultural Ceremonies or Activities; 4) Cultural Uses of Food; 5) Traditional Persons, Elders, & Leaders; and 6) Feathers list. By adding to these lists, each question could then be more appropriate for the AI/AN communities residing within a 150-mile radius of the San Francisco Bay area.

In addition to the development of the CCS-CA, two other interesting results emerged during Phase 3. First, it became clear that the new CCS-CA could be easily adapted for other AI/AN communities and different tribes, on or off reservation, by using the same process, which would mostly focus on making appropriate changes to the Examples Lists and minor phrasing to match local words to refer to culture.

Second, the CBPR approach helped with generating new items and achieving consensus and face validity. It also helped address historical issues with negative or harmful research experiences and lack of trust (Hodge, 2012; Tom-Orme, 2006; Tsosie, 2007). For example, in one community, the health organization had a policy of not participating in research on their community members. This was based on the history of negative or poor research experiences including the knowledge of research causing harm to, or not producing benefits for, Indigenous communities as described by one community member who said: “We have been researched to death and nothing changes.” However, in the *Culture is Prevention Project*, we found the research experience appeared to be having the opposite effect. Focus group participants and key informants were very engaged and seemed to have a sense of pride and ownership over the process and results. Some participants indicated they were proud to be working on a project that was new, respectful, inclusive, supported their narratives, and which could benefit the current community and future generations. In addition, participants frequently wanted to know when they could obtain the final
instrument when it was developed and requested to keep copies of the Examples Lists they had worked to develop.

**DISCUSSION**

This project began with direction from the Community Advisory Workgroup to identify or develop evaluation approaches that were aligned with an AI/AN epistemology and culture. The directive included the need for the team to be mindful of the diverse multi-tribal differences within the urban AI/AN communities of the San Francisco Bay area. Given that over 100 Tribes are represented in the Bay area, we needed an approach that would work and be acceptable. This indicated that a CBPR approach was the most appropriate to blend Western research methods with Bay Area Indigenous perspectives, experiences, culture, and knowledge.

CBPR approaches help address some of the historical problems associated with non-Aboriginal researchers conducting research in Aboriginal communities by capitalizing on the strengths of both parties (Szala-Meneok & Lohfeld, 2005). Other strengths of CBPR include the sense of community ownership that often develops including pride regarding the outcomes or solutions (Masotti et al., 2006). A particular strength in the *Culture is Prevention Project* was that it was initiated by the Community Advisory Workgroup and was supported by decision makers in the participating Indigenous Health Organizations. The focus groups were facilitated by an Elder known to each community and essentially were run like workgroups where the participants could see the results of their knowledge and input throughout the process.

Throughout Phases 1-3, there was a high degree of interest and engagement among the overall team comprised of the Community Advisory Workgroup, staff from the participating Indigenous Health Organizations, and community members they brought into the project. In part, this was because people were addressing an issue relating to mental health/well-being using a more Indigenous perspective. For example, SAMHSA's mission is to reduce the impact of substance abuse and mental illness (SAMHSA, 2019). However, as indicated earlier, there were concerns that the required outcome measures were overly focused on decreasing ‘at-risk’ behaviors such as drug and alcohol use and that there did not appear to be interest in capturing ‘health promoting behaviors’ or strength-based outcomes known to Native persons to improve health at individual, family, and community levels. One of these missing areas was the importance of Native culture as a social determinant of health.
Participants in the *Culture is Prevention Project* frequently indicated they were pleased to be working on a project they considered to be timely and important and which was aligned with their Indigenous strength-based narrative. Increasing protective factors, quality of life, and well-being is more aligned with traditional Native holistic, strength-based, and resiliency-based approaches to health versus the Western approach, which focuses more on decreasing risk or illness (Bartgis, 2016; Singer 2009; Arquette et al., 2002). As described by Bartgis:

Strength-based approaches to health and wellness in tribal communities are not new, but are embedded in diverse tribal best practices, established by systematic observation over centuries, that have been passed down orally from generation to generation. The oral transmission of tribal best practices results in increased supervision and fidelity through a one-on-one mentorship model in which training typically occurs over decades. … Unlike randomized clinical trials used in Western science, tribal science has collected knowledge of long-term effects of practices that are in tune to the role of the environment. (2016, pi)

Some components of the traditional Indigenous perspective on health is shared with the World Health Organization (WHO). For example, in 1946, the WHO described health as: “…a state of complete physical, mental, and social wellbeing, and not merely the absence of disease or infirmity” (WHO, 1946). However, Indigenous peoples’ traditional approaches to health broadened or improved upon this by also including population health approaches centuries before population health was recognized and embraced by Western medical professionals. Given this, we suggest an additional value of CBPR is the potential for bi-directional capacity building whereby both Indigenous community members and academic researchers (or government decision-makers) learn from each other to increase overall capacity to generate health in Indigenous communities and support culturally appropriate evaluation approaches (Masotti et al., 2006; Wallerstein et al., 2008).

**Lessons Learned**

**Introducing the Project and CCS**

How the project is introduced is important. After engagement with many people interacting with the *Culture is Prevention Project* and original CCS, it became clear that what people knew about the CCS in the beginning had an impact on how they viewed and accepted it. People were
open and willing to help when they were informed: a) that the original CCS was developed by an Indigenous person and scholar (Dr. Angela Snowshoe) in Canada for Indigenous persons with the objective of demonstrating the relationships between Indigenous culture and health; and b) that revised CCS-CA was developed by AI/ANs in California for AI/ANs. In some settings where the CCS-CA was presented without this history, the opposite reaction occurred. Individuals were immediately skeptical and assumed it was another attempt by science to quantify Native culture based upon Western concepts, biases, and assumptions. We thought this negative response could have been associated with a historical trauma response relating to negative or harmful impacts of outside research on AI/AN communities.

Adapting the CCS-CA for the Community

Adapting the CCS-CA to be community-specific using a CBPR approach, involving multiple community leaders and members, is an important and necessary first step to community acceptance and ownership. This CBPR approach facilitated the process of adapting the 29 questions to be a better fit and more acceptable to multi-tribal communities. In Appendix B we provide a three step approach that interested communities could use to adapt the CCS-CA to be community or tribally specific.

Implications

The Snowshoe study (2015), combined with historical knowledge and other evidence, indicates that culture is an important determinant of health for Indigenous peoples. Snowshoe demonstrated that cultural connectedness can be measured and was positively associated with mental health/well-being. (Note, in our next paper we will present the results of our pilot testing/validation study where we also evaluate the relationship between cultural connectedness and mental health/well-being.) Given this and that cultural connectedness can now be measured, we argue:

- The degree of culture or cultural connectedness can also be seen as an important health program objective.
- Given that the loss of culture has negatively impacted the well-being of Indigenous peoples (e.g., resulting in poor mental, emotional, spiritual, and physical health; lowered life satisfaction; and substance abuse), the degree of reclaimed culture or increased cultural connectedness may be a more important outcome measure, for Indigenous people, than the reduction in frequency of a risky behavior.
CBPR projects, particularly those in Indigenous communities and in collaboration with government funders, may help to counteract some outcomes of colonization. This approach may facilitate a paradigm shift by increasing the willingness of the dominant culture to acknowledge and understand that some AI/AN practices have thousands of years of use and are successful in creating and supporting health/well-being and are therefore, by definition, “evidence based” (Brave Heart et al., 2011).

Efforts should continue on the part of Indigenous people to push for increased promotion and use of Indigenous epistemology and approaches to program evaluation and health outcomes measures.

Government, academia, and Western medicine should be cognizant that Indigenous cultures historically manufactured good health. Therefore, government, academia, and Western medicine should try to better understand and promote Indigenous epistemology and community-defined evidence practices and not undermine it.

Limitations

We do not suggest we speak for all Indigenous communities within or outside of California. The CCS-CA was modified from the original CCS for use with multi-tribal communities in the San Francisco Bay area. Focus groups were held within 100 miles of San Francisco. Although the sample included persons who identified as being affiliated with 36 tribes, it was not a complete representation of all tribes within the area, which is estimated to be over 100. It is expected that the CCS-CA instrument will need to be reviewed and tailored to the culture of the local community, but it will be important that any changes maintain the integrity of the measures, subscales, and scoring system. Therefore, some modifications to the CCS-CA instrument by local communities could impact the reliability or validity of the CCS-CA. Other communities interested in using the CCS-CA are advised to go through a similar process of community introduction and local adaptation. This will support local level acceptance and ownership. We present our suggestions for local adaptation and lessons learned in Appendix B.

Future Research

Future research will include completing Phases 4-6 of the Culture is Prevention Project. In the next paper, we will present the results of the pilot and psychometric testing (Phase 4) that
replicated parts of the Snowshoe study (2015) such as the evaluation of the relationship between cultural connectedness and measures of mental health/well-being. In Phase 5 (Developing the Predictive Properties of the CCS-CA), we plan to evaluate if the CCS-CA could be used to identify people who are doing well versus not doing well (e.g., strong, resilient, good well-being versus experiencing or at risk for depression, suicide, or substance abuse). And in Phase 6 (Cultural Connectedness, Integration, Health, Utilization, and Costs in Health Center), we plan to evaluate the relationships between culture, physical health measures, and health organization outcomes (e.g., cost, utilization).

REFERENCES


Arquette, M., Cole, M., Cook, K., LaFrance, B., Peters, M., Ransom, J., & Stairs, A. (2002). Holistic risk-based environmental decision making: A Native perspective. *Environmental Health Perspectives, 110*(Suppl 2), 259-264. [http://dx.doi.org/10.1289/ehp.02110s2259](http://dx.doi.org/10.1289/ehp.02110s2259)


California Department of Public Health. (2019). *California Reducing Disparities Project*. Retrieved from [https://www.cdph.ca.gov/Programs/OHE/Pages/CRDP.aspx](https://www.cdph.ca.gov/Programs/OHE/Pages/CRDP.aspx)


ADAPTING THE CCS FOR MULTI-TRIBAL COMMUNITIES


World Health Organization (WHO). (1946, June). *Constitution*. Retrieved from [https://www.who.int/about/who-we-are/constitution](https://www.who.int/about/who-we-are/constitution)
ACKNOWLEDGEMENTS

The paper represents the activities and results from the three research projects representing the first three of six phases of the Culture is Prevention Project. This work was supported by funding from SAMHSA (Partnerships for Success), the California Department of Public Health – Office of Health Equity (California Reducing Disparities Project), and the Native American Health Center (Department of Community Wellness). The research and this manuscript was approved by the Indian Health Service (I.H.S.) National Institutional Review Board (NIRB) N17-N-02 Culture is Prevention and the Community Advisory Board (Strategic Prevention Advisory Workgroup) comprised of staff and community members from the participating Native American health services organizations.

The authors would like to acknowledge the contributions of staff and community members from the six participating Native American health organizations and Community Advisory Boards/Workgroup that contributed to the project:

- California Consortium for Urban Indian Health – San Francisco
- Friendship House – San Francisco
- Indian Health Center of Santa Clara Valley – San Jose
- Native American Health Center – Oakland/San Francisco
- Sacramento Native American Health Center – Sacramento
- Urban Indian Health Institute – Seattle
- The Blanket Weavers (Community Advisory Board) – San Francisco

We would like to acknowledge the early contributions to the genesis of the Culture is Prevention project by Mikayla Schaaf (NAHC Program Manager), Gerry Rainingbird & Jeremy Goldbach (SAMHSA – CAPT). We also very much would like to acknowledge the important original work by Dr. Angela Snowshoe (University of Regina) and colleagues that made this possible.

AUTHOR INFORMATION

Janet King is Program Manager of Policy and Advocacy at the Native American Health Center in Oakland, California.
Dr. Paul Masotti is Director of Research/Evaluation at the Native American Health Center in Oakland, California.

John Dennem is a PhD candidate and consultant at Claremont Graduate University in Claremont, California.

Shir Hadani is an evaluator at the Native American Health Center in Oakland, California. Janice Linton is the Indigenous Health Librarian & Liaison Librarian for Community Health Sciences at the University of Manitoba in Winnipeg, Manitoba.

Bonnie Lockhart is a consultant and member of the Sherwood Valley Band of Pomo Indians in Willits, California.

Dr. Jami Bartgis is a consultant at One Fire Associates in Sand Springs, Oklahoma.
Appendix A - Cultural Connectedness Scale – California, Sub Scales

Traditions - 11 Items
- I use ceremonial/traditional medicines (See Examples List #1) for guidance or prayer or other reasons. (See Examples List #2) 
- I have participated in a traditional/cultural ceremony or activity. (See Examples List #3) 
- I have helped prepare for a traditional/cultural ceremony or activity in my family or community. (See Examples List #3) 
- Someone in my family or someone I am close with attends traditional/cultural ceremonies or activities. (See Examples List #3) 
- I plan on attending a traditional/cultural ceremony or activity in the future. (See Examples List #3) 
- I have shared a meal with community, offered food or fed my ancestors for a traditional/cultural or spiritual reason. 
- How often do you offer a ceremonial/traditional medicine for cultural/traditional purposes? (See Examples List #1) 
- How often do you use ceremonial/traditional medicines? (See Examples List #1) 
- How often does someone in your family or someone you are close to use ceremonial/traditional medicines? (See Examples List #1) 
- I can understand some of my Native American/Indigenous words or languages. 
- I have a traditional person, elder or other person who I can talk to. (See Examples List #5)

Identity - 11 Items
- I plan on trying to find out more about my Native American/Indigenous culture, such as its history, Tribal Identity, traditions, customs, arts and language. 
- I have spent time trying to find out more about being Native American/Indigenous, such as its history, tribal identity, traditions, language and customs. 
- I have a strong sense of belonging to my Native American/Indigenous family, community, Tribe, or Nation. 
- I have done things that will help me understand my Native American/Indigenous background better. 
- I have talked to community members or other people (See Examples List #5) in order to learn more about being Native American/Indigenous. 
- When I learn something about my Native American/Indigenous culture, history or ceremonies, I will ask someone, research it, look it up, or find resources to learn more about it. 
- I feel a strong attachment towards my Native American community or Tribe. 
- If a traditional person, counsellor or Elder who is knowledgeable about my culture spoke to me about being Native American/Indigenous, I would listen to them carefully. (See Examples List #5) 
- I feel a strong connection to my ancestors and those who came before me. 
- Being Native American means I sometimes have a different perception or way of looking at the world. 
- It is important to me that I know my Native American/Indigenous or Tribal language(s).

Spirituality - 7 Items
- I know my cultural, spirit, Indian or Traditional Name. 
- I believe things like animals, rocks (and all nature) have a spirit like Native American/Indigenous People. 
- The eagle feather (or other feathers - See Examples List #6) has a lot of traditional meaning for me. 
- When I am physically ill, I look to my Native American/Indigenous culture for help. 
- When I am overwhelmed with my emotions, I look to my Native American/Indigenous culture for help. 
- When I need to make a decision about something, I look to my Native American/Indigenous culture for help. 
- When I am feeling spiritually disconnected, I look to my Native American/Indigenous culture for help.

Response Format
- a = Yes, No (or Not Applicable)
- b = Strongly Disagree, Disagree, Do Not Agree or Disagree, Agree, Strongly agree
- c = Never, once/twice past year, every month, every week, every day
Appendix A – Examples Lists: Cultural Connectedness Scale – California

<table>
<thead>
<tr>
<th>List #1 Ceremonial &amp; Traditional Medicines</th>
<th>List #2 Uses of Ceremonial &amp; Traditional Medicines</th>
<th>List #3 Traditional, Tribal &amp; Cultural Ceremonies or Activities</th>
<th>List #4 Cultural Uses of Food</th>
<th>List #5 Traditional Persons, Elders &amp; Leaders</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Angelica Root</td>
<td>• Asking for a blessing in a sacred manner</td>
<td>• Acorn Ceremony</td>
<td>• Spirit Plate</td>
<td>• Ceremonial Leader</td>
</tr>
<tr>
<td>• Bear Root</td>
<td>• Calmness</td>
<td>• Beading Class</td>
<td>• Thank You Ceremony</td>
<td>• Cultural Teacher</td>
</tr>
<tr>
<td>• Cedar</td>
<td>• Cultural connections</td>
<td>• Bear Dance, Sun Dance, Round Dance or other Cultural Dance</td>
<td>• Special Feast</td>
<td>• Doctor</td>
</tr>
<tr>
<td>• Corn Pollen</td>
<td>• Gifting to show respect</td>
<td>• Big Time</td>
<td>• Community Feed</td>
<td>• Elder</td>
</tr>
<tr>
<td>• Copal</td>
<td>• Give thanks</td>
<td>• Burning of Clothes</td>
<td>• Other</td>
<td>• Father</td>
</tr>
<tr>
<td>• Greasewood</td>
<td>• Guidance</td>
<td>• Coming of Age</td>
<td></td>
<td>• Feather Man</td>
</tr>
<tr>
<td>• Jimson</td>
<td>• Help Sleeping</td>
<td>• Deer Gathering</td>
<td></td>
<td>• Feather Woman</td>
</tr>
<tr>
<td>• Milk Weed</td>
<td>• To honor</td>
<td>• Drumming</td>
<td></td>
<td>• God Father</td>
</tr>
<tr>
<td>• Mountain Tea</td>
<td>• Personal Healing</td>
<td>• Feast Giveaway</td>
<td></td>
<td>• God Mother</td>
</tr>
<tr>
<td>• Mugwort</td>
<td>• Prayer</td>
<td>• Fiesta (South of Kern Valley)</td>
<td></td>
<td>• Head Heir</td>
</tr>
<tr>
<td>• Palo de Santo,</td>
<td>• Smudge</td>
<td>• GONA</td>
<td></td>
<td>• Head Man</td>
</tr>
<tr>
<td>• Peyote</td>
<td>• Spiritual connections</td>
<td>• Longhouse</td>
<td></td>
<td>• Head Woman</td>
</tr>
<tr>
<td>• Sage</td>
<td>• Spiritual Offerings</td>
<td>• Moon Ceremony</td>
<td></td>
<td>• Medicine People</td>
</tr>
<tr>
<td>• Sweet grass</td>
<td>• Steady Mind</td>
<td>• New Years</td>
<td></td>
<td>• Mother</td>
</tr>
<tr>
<td>• Tobacco</td>
<td>• Talk to the creator</td>
<td>• Pot Latch</td>
<td></td>
<td>• Mother Bear</td>
</tr>
<tr>
<td>• Women’s Tea</td>
<td>• Keep bad spirits away</td>
<td>• Puberty Ceremony</td>
<td></td>
<td>• Regalia Leader</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Repatriation</td>
<td></td>
<td>• Spiritual Person</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Running is my High</td>
<td></td>
<td>• Timiiwal</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Spring Ceremony</td>
<td></td>
<td>• Top Doc</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Story Telling</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Sunrise Ceremony</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Sun Rise (Alcatraz)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Sweat Lodge</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Traditional Tattoo</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Washing of the Face</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Wiping of Tears</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Young Men’s Ceremony</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Yuwipi</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>List #6 Feathers</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Eagle</td>
<td></td>
</tr>
<tr>
<td>• Condor</td>
<td></td>
</tr>
<tr>
<td>• Flicker</td>
<td></td>
</tr>
<tr>
<td>• Hummingbird</td>
<td></td>
</tr>
<tr>
<td>• Raven</td>
<td></td>
</tr>
<tr>
<td>• Hawk</td>
<td></td>
</tr>
<tr>
<td>• Turkey</td>
<td></td>
</tr>
<tr>
<td>• Quail</td>
<td></td>
</tr>
<tr>
<td>• Woodpecker</td>
<td></td>
</tr>
</tbody>
</table>
Appendix B - Community-Specific Adaptation of the Cultural Connectedness Scale – California

We recommend the following three step approach to adapting the CCS-CA to be community or tribally specific.

**Step 1: Develop or use an existing Community Advisory Board comprised of community leaders, elders, youth, and formal and informal community leaders.** Provide background on the development of the CCS and CCS-CA: a) that they were developed by Indigenous/Native persons for Indigenous/Native persons; and b) publications such as Snowshoe et al., 2015 and King et al., 2019.

1.1) Members of the Community Advisory Board will meet and complete Steps 2 and 3.

**Step 2: Review each question to see if any changes to the language are needed to make the question more appropriate for the community/Tribe/Nation.**


2.2) Change terms or names to what is appropriate to be community or Tribally specific such as changing ‘Clan Mother’ or ‘Traditional Person’ to what is typically used in its place.

2.3) This step could also mean changing the possible answers such as what we did for the Question: I know my cultural/spirit name or Indian name, to include the possible answers to be: Yes, No or Not Applicable (We do not have/use ‘Indian Names’).

Note – it is important to try not to change what the question is intended to measure. Thus in this step, the objective is to mostly revise terms and names to be community or Tribally specific.

**Step 3: Review and revise the Example Lists**

3.1) Review each of the six Examples Lists and remove all examples that are not relevant for your community, Tribe, or Nation.

3.2) Add examples to each of the six Examples Lists that are appropriate for your community, Tribe, or Nation.
Appendix C – Operational Cultural Connectedness Scale – California

Background and Introduction

The Cultural Connectedness Scale is an instrument that was developed by an Indigenous researcher in Canada, Dr. Angela Snowshoe, to measure cultural connections among First Nations youth. The Cultural Connectedness Scale - California (CCS-CA) was adapted from the original Cultural Connectedness Scale (Snowshoe et al., 2015) and tested for use in California with urban Indigenous adults and youth. Individuals participating in the development of this tool were from 37 distinct tribal nations across the United States. During the pilot testing phase, 105 distinct tribal nations were represented.

One of the changes in the CCS-CA is the addition of an Examples List (See attached) that should be adapted (changed) for your community in order for the CCS-CA to work best for your location. This Examples List has already been adapted by a tribal nation and is being used in the Great Plains area.

Most people that complete the Cultural Connectedness Scale report a positive experience. However, a few people reported feeling sad, angry, shame, or a sense of loss from some of the questions. For example, some people may not know their traditional, tribal or Indian name, creating a sense of loss or a feeling of shame. These individuals may not have had the opportunity to have a Naming Ceremony due to a wide range of causes beginning from cultural losses that occurred when Europeans settled in America. Also, some may come from tribes in which Indian naming by ceremony is not a practice. These questions are not to judge or make anyone have a negative reaction, but to help us learn about what is valued and to measure connection to Native American/Indigenous culture(s).

If you feel negative or tender emotions about some of these questions, today or in the future as you recall the questions, it is a very normal reaction to having a loss or disconnection. It is important to be honest with yourself about any negative or unwanted feelings and reach out to a trusted healthy adult or professional in your local community to talk. You can also call a confidential national hotline, LIFELINE at (800)273-8255 (TALK).

We thank you for your participation!

http://dx.doi.org/10.1037/a0037867
Cultural Connectedness Scale - California

QUESTIONS 1 - 11, Circle the Most Accurate Answer

1. I believe things like animals, rocks (and all nature) have a spirit like Native American/Indigenous People.
   Yes   No

2. I can understand some Native American/Indigenous words or language(s).
   Yes   No

3. I know my Cultural, Spirit, Indian or Traditional Name.
   Yes   No  Does Not Apply (We do not use these names)

4. I use ceremonial/traditional medicines (See Examples List #1) for guidance or prayer or other reasons (See Examples List #2).
   Yes   No

5. I have participated in a traditional/cultural ceremony or activity (See Examples List #3).
   Yes   No

6. I have helped prepare for a traditional/cultural ceremony or activity in my family or community (See Examples List #3).
   Yes   No

7. I have shared a meal with community, offered food or fed my ancestors for a traditional/cultural or spiritual reason (See Examples List #4).
   Yes   No

8. Someone in my family or someone I am close with attends traditional/cultural ceremonies or activities (See Examples List #3).
   Yes   No

9. I plan on attending a traditional/cultural ceremony or activity in the future (See Examples List #3).
   Yes   No

10. I plan on trying to find out more about my Native American/Indigenous culture, such as its history, Tribal identity, traditions, customs, arts and language.
    Yes   No

11. I have a traditional person, elder or other person who I can talk to (See Examples List #5).
    Yes   No
QUESTIONS 12 - 29. Circle the Most Accurate Answer

12. I have spent time trying to find out more about being Native American/Indigenous, such as history, tribal identity, traditions, language and customs.
   Strongly Disagree  Disagree  Do Not Agree or Disagree  Agree  Strongly Agree

13. I have a strong sense of belonging to my Native American/Indigenous family, community, Tribe, or Nation.
   Strongly Disagree  Disagree  Do Not Agree or Disagree  Agree  Strongly Agree

14. I have done things that will help me understand my Native American/Indigenous background better.
   Strongly Disagree  Disagree  Do Not Agree or Disagree  Agree  Strongly Agree

15. I have talked to community members or other people (See Examples List #5) in order to learn more about being Native American/Indigenous
   Strongly Disagree  Disagree  Do Not Agree or Disagree  Agree  Strongly Agree

16. When I learn something about my Native American/Indigenous culture, history, or ceremonies, I will ask someone, research it, look it up, or find resources to learn more about it.
   Strongly Disagree  Disagree  Do Not Agree or Disagree  Agree  Strongly Agree

17. I feel a strong connection/attachment towards my Native American community or Tribe.
   Strongly Disagree  Disagree  Do Not Agree or Disagree  Agree  Strongly Agree

18. If a traditional person, counselor or Elder who is knowledgeable about my culture, spoke to me about being Native American/Indigenous, I would listen to them carefully (See Examples List #5).
   Strongly Disagree  Disagree  Do Not Agree or Disagree  Agree  Strongly Agree

19. I feel a strong connection to my ancestors and those that came before me.
   Strongly Disagree  Disagree  Do Not Agree or Disagree  Agree  Strongly Agree

20. Being Native American/Indigenous means I sometimes have a different perception or way of looking at the world.
   Strongly Disagree  Disagree  Do Not Agree or Disagree  Agree  Strongly Agree

21. The eagle feather (or other feathers) has a lot of traditional meaning for me (See Examples List #6).
   Strongly Disagree  Disagree  Do Not Agree or Disagree  Agree  Strongly Agree

22. It is important to me that I know my Native American/Indigenous or Tribal language(s).
   Strongly Disagree  Disagree  Do Not Agree or Disagree  Agree  Strongly Agree

23. When I am physically ill, I look to my Native American/Indigenous culture or community for help.
   Strongly Disagree  Disagree  Do Not Agree or Disagree  Agree  Strongly Agree

24. When I am overwhelmed with my emotions, I look to my Native American/Indigenous culture or community for help.
   Strongly Disagree  Disagree  Do Not Agree or Disagree  Agree  Strongly Agree
25. When I need to make a decision about something, I look to my Native American/Indigenous culture or community for help.  
   Strongly Disagree  Disagree  Do Not Agree or Disagree  Agree  Strongly Agree

26. When I am feeling spiritually ill or disconnected, I look to my Native American/Indigenous culture or community for help.  
   Strongly Disagree  Disagree  Do Not Agree or Disagree  Agree  Strongly Agree

Please answer how often you experience the following:

27. How often do you offer a ceremonial/traditional medicine for cultural/traditional purposes?  
   (See Examples List #1)  
   Never  Once/Twice in the Past Year  Every Month  Every Week  Every Day

28. How often do you use ceremonial/traditional medicines? (See Examples List #1)  
   Never  Once/Twice in the Past Year  Every Month  Every Week  Every Day

29. How often does someone in your family or someone you are close to use ceremonial or traditional medicines? (See Examples List #1)  
   Never  Once/Twice in the Past Year  Every Month  Every Week  Every Day

CCS-CA SCORING  
Yes = 5  No = 1  NA = 3

Strongly Disagree = 1  Never = 1  
Disagree = 2  Once/Twice Past Year = 2  
Do Not Agree/Disagree = 3  Every Month = 3  
Agree = 4  Every Week = 4  
Strongly Agree = 5  Every Day = 5

CCS-CA Range: 29 – 145  
Identity Subscale: 11 - 55  
Traditions Subscale: 11 - 55  
Spirituality Subscale: 7 - 35
**Examples Lists: Cultural Connectedness Scale - California**

<table>
<thead>
<tr>
<th>List #1 Ceremonial &amp; Traditional Medicines</th>
<th>List #2 Uses of Ceremonial &amp; Traditional Medicines</th>
<th>List #3 Traditional, Tribal &amp; Cultural Ceremonies or Activities</th>
<th>List #4 Cultural Uses of Food</th>
<th>List #5 Traditional Persons, Elders &amp; Leaders</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Angelica Root</td>
<td>• Asking for a blessing in a sacred manner</td>
<td>• Acorn Ceremony</td>
<td>• Spirit Plate</td>
<td>• Ceremonial Leader</td>
</tr>
<tr>
<td>• Bear Root</td>
<td>• Calmness</td>
<td>• Bear Dance, Sun Dance, Round Dance or other Cultural Dance</td>
<td>• Thank You Ceremony</td>
<td>• Cultural Teacher</td>
</tr>
<tr>
<td>• Cedar</td>
<td>• Cultural connections</td>
<td>• Big Time</td>
<td>• Special Feast</td>
<td>• Doctor</td>
</tr>
<tr>
<td>• Corn Pollen</td>
<td>• Gifting to show respect</td>
<td>• Burning of Clothes</td>
<td>• Community Feed</td>
<td>• Elder</td>
</tr>
<tr>
<td>• Copal</td>
<td>• Give thanks</td>
<td>• Coming of Age</td>
<td>• Other</td>
<td>• Father</td>
</tr>
<tr>
<td>• Greasewood</td>
<td>• Guidance</td>
<td>• Deer Gathering</td>
<td></td>
<td>• Feather Man</td>
</tr>
<tr>
<td>• Jimson</td>
<td>• Help Sleeping</td>
<td>• Drumming</td>
<td></td>
<td>• Feather Woman</td>
</tr>
<tr>
<td>• Milk Weed</td>
<td>• To honor</td>
<td>• Feast Giveaway</td>
<td></td>
<td>• God Father</td>
</tr>
<tr>
<td>• Mountain Tea</td>
<td>• Personal Healing</td>
<td>• Fiesta (South of Kern Valley)</td>
<td></td>
<td>• God Mother</td>
</tr>
<tr>
<td>• Mugwort</td>
<td>• Prayer</td>
<td>• GONA</td>
<td></td>
<td>• Head Heir</td>
</tr>
<tr>
<td>• Palo de Santo,</td>
<td>• Smudge</td>
<td>• Longhouse</td>
<td></td>
<td>• Head Man</td>
</tr>
<tr>
<td>• Peyote</td>
<td>• Spiritual connections</td>
<td>• Moon Ceremony</td>
<td></td>
<td>• Head Woman</td>
</tr>
<tr>
<td>• Sage</td>
<td>• Talk to the creator</td>
<td>• New Years</td>
<td></td>
<td>• Medicine People</td>
</tr>
<tr>
<td>• Sweet grass</td>
<td>• Keep bad spirits away</td>
<td>• Pot Latch</td>
<td></td>
<td>• Mother</td>
</tr>
<tr>
<td>• Tobacco</td>
<td></td>
<td>• Pow Wow</td>
<td></td>
<td>• Mother Bear</td>
</tr>
<tr>
<td>• Women’s Tea</td>
<td></td>
<td>• Puberty Ceremony</td>
<td></td>
<td>• Regalia Leader</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Repatriation</td>
<td></td>
<td>• Spiritual Person</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Running is my High</td>
<td></td>
<td>• Timiiwal</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Spring Ceremony</td>
<td></td>
<td>• Top Doc</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Story Telling</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Sunrise Ceremony</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Sun Rise (Alcatraz)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Sweat Lodge</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Traditional Tattoo</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Washing of the Face</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Wiping of Tears</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Young Men’s Ceremony</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Yuwipi</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**List #6 Feathers**

- Eagle
- Condor
- Flicker
- Hummingbird
- Raven
- Hawk
- Turkey
- Quail
- Woodpecker