

# Indigenous Cultural Wellbeing Measures Literature Review

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## Introduction

Cultural wellbeing is a protective factor for overall health and wellness (Allen, Fok, Henry, Skewes, & People Awakening, 2012; LaFromboise, Hoyt, Oliver, & Whitbeck, 2006; Pu et al., 2013; Whitbeck, Hoyt, Stubben, & LaFromboise, 2001). Within Indigenous communities, wellness is frequently viewed in a holistic sense with the body, mind and spirit being connected (Hodge & Nandy, 2011; Laurence J Kirmayer, Sehdev, & Isaac, 2009). Moreover, culture is central to the holistic understanding of wellness (Levin & Browner, 2005). However, there is incongruity over what cultural wellbeing means and how it can be measured. This literature review—(1) provides perspectives on what cultural wellbeing is, including related concepts and indicators; and (2) summarizes existing published cultural wellbeing measurement tools applicable to Alaska Native, American Indian (AN/AI) and other Indigenous communities.

## Cultural Wellbeing Defined

It is difficult to define cultural wellbeing in a definitive manner as it involves both delineating “culture” and “wellbeing” and then showing how the meanings intersect. The Universal Declaration of Cultural Diversity succinctly defines **culture** as a “set of distinctive spiritual, material, intellectual and emotional features of society or a social group...that...encompasses, in addition to art and literature, lifestyles, ways of living together, value systems, traditions and beliefs” (UNESCO, 2002). While, **well-being** includes the “presence of positive emotions and moods (e.g., contentment, happiness), the absence of negative emotions (e.g., depression, anxiety), satisfaction with life, fulfillment and positive functioning (CDCP, 2016).” Participating in cultural activities enriches wellbeing by enhancing “sense of self—who I am, how I fit in; improved self-confidence, direction, focus; sense of accomplishment, achievement, pride; self-esteem, self-worth, and dignity (UNESCO, 2002)” leading to positive **cultural well-being**.

## Measures of Cultural Wellbeing

The literature search began with a query on “cultural wellbeing” which initially resulted in few results and lead to expanded searches on other common themes prevalent to Indigenous wellness (see Search Strategy for criteria). A multi-disciplinary review of Indigenous wellness-related literature resulted in the inclusion of 21 measures in this

review which are separated into five categories<sup>1</sup> of measures associated with cultural wellbeing — acculturation, enculturation, cultural connectedness, cultural identity, and resilience. Each of the cultural wellbeing categories are reviewed followed by a summary of their associated measures. It is worth noting that some of the measures may fall into one or more of the identified categories of cultural wellbeing. For the sake of organization, these measures have been situated in the category most closely related to the measure's items.

## Acculturation

A person's values, beliefs and identity are shaped by the culture or cultures that surround them. When a person is connected to their culture, they are better equipped to positively influence their overall wellbeing as a result of an increased sense of identity, commitment and purpose (Wexler, 2014). Enculturation and acculturation play roles in a person's worldview. Understanding the degree to which an AN/Al or other Indigenous person has adapted to the majority culture through acculturation and how much they are connected to their culture through enculturation are similarly important.

**Acculturation** is the degree to which an individual accepts and adheres to both, their enculturated values (i.e. AN/Al) and the majority (i.e. White) cultural values (Choney, Berryhill-Paapke, & Robbins, 1995; Winderowd, Montgomery, Stumblingbear, Harless, & Hicks, 2008). Cultural differences between Al and mainstream American values may be mediated by an individual's level of acculturation and show impact on personal and social functioning in a school environment (Garrett, Torres Rivera, Dixon, & Myers, 2009). For example, traditional Al culture may place more value in cooperation while contemporary mainstream American culture holds more value in competition (Garrett et al., 2009).

Although acculturation has been significant to the history of AN/Al people, only limited measures have been established specifically for AN/Al communities (Reynolds, Sodano, Ecklund, & Guyker, 2012). Moreover, most studies have been limited to specific American Indian groups (See Living in Two Worlds Survey (Bryant Jr & LaFromboise, 2005) and Rosebud Personal Options Survey (Hoffmann, Dana, & Bolton, 1985) as examples). Additional research is needed to examine the reliability and validity of AN/Al acculturation assessment tools more broadly. Of the reviewed acculturation measures, only one study which used the Native American Acculturation Scale (NAAS) (Reynolds et al., 2012) consisted of two national samples of university students that had representation of over 100 tribal groups; sample 1 consisted of 216 participants and sample 2 had 273 participants. This study showed promise for using the NAAS's multidimensional approach to assessing acculturation considering three specific areas—*core self* (participants who scored high in this area were less likely to

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<sup>1</sup> Please note that some of the identified measures may fall into more than one of these categories. For organizational purposes, some of the measures have been placed into a category that corresponds most closely with the categorical content in the measure.

have grown up in a AI community, had less contact with AI people and had parents who didn't identify with AI culture while those who scored low were more connected to AI identity); *cultural self-expression* (participants who scored high were more likely to express themselves using English, while those with lower scores may think, speak, write, and feel using AI language); and *cultural and community engagement* (a high score suggests that participants may be less likely to participate in and take pride in their AI culture while a low score suggests more involvement in AI culture and identifying more with AI culture)(Reynolds et al., 2012).

### Acculturation Measures

Four acculturation measures specific to American Indian cultural groups are included in this review.

#### ***Acculturation Scale for American Indians AKA Life Perspectives Scale*** (Choney et al., 1995)

The ACAI is a 51-item measure that assesses for both the AI community and the dominant community for the domains of cognitive (understanding language and customs); behavioral (acts in appropriate ways, participates in social activities); affective/spiritual (embraces traditional tribal spirituality, emotionally connected to tribal community); social/environmental (socializes in community, and chooses to live in community). Using a 5-point Likert scale (1 Never – 5 Most of the time) participants are asked to respond to statements related to their worldview. For each domain (cognitive, affective/spiritual, social/environmental, and behavioral, items are added together based on the Likert scale response. The sum of the scores for each item in the domain subscale is divided by the number of items in the subscale to make up an enculturation score. Higher scores denote more traditional (enculturated) status while lower scores indicate a more acculturated status. This scales reliability and validity information was lacking and there are questions to the overall validity of the scale due to limited psychometric analyses (Berryhill, 1997). A major limitation of this scale is that it focuses on a single dimension of acculturation--identification with AI culture. Recommendations have been made to add additional dimensions related to identification with dominant community to better address multidimensional aspects of acculturation (Berryhill, 1997).

#### ***Living in Two Worlds Survey*** (Bryant Jr & LaFromboise, 2005)

The LTWS is a 50-item measure with two subscales (American Indian and White American) developed to measure the cultural competence of American Indian adolescents in both the dominant (White) and American Indian society. The items are grouped under the following domains: friendship, communication, community membership, support, and cultural knowledge. Participants are asked to respond in terms of how well each item describes or applies to them using a 4-point Likert scale (A = very to D = not at all). Higher scores on each scale indicate greater competence in that society (AI or White). One hundred and three Lumbee high school students in North Carolina participated in a study to assess racial identity and cultural orientation. Alpha reliability coefficients for this sample were American Indian, .83, and White American, .94, values similar to those reported by LaFromboise (1999). The interscale correlation for this study was .02. Because of this independent relationship, scores from each scale

can be divided into high and low groups, creating a matrix of cultural orientation: high Indian/high White; high Indian/low White; low Indian/high White; and low Indian/low White.

***Native American Acculturation Scale*** (Garrett & Pichette, 2000; Garrett et al., 2009; Reynolds et al., 2012)

The NAAS is a 20-item measure used to assess an individual's level of acculturation ranging from traditional Native American culture to assimilated mainstream American culture. Domains covered include language, identity, friendships, behaviors, generational/geographic background, and attitudes. Example items include "What language do you speak?" and "How do you identify yourself?" (Reynolds et al., 2012). Items are scored on a 5-point Likert-type scale ranging from 1, representing low acculturation or high Native American identity to 5, indicating high acculturation or high mainstream White American identity. The NAAS was normed on 139 AI high school students in North Carolina and was later piloted with 142 AI (n=19) and non-AI (n=123) high school students in North Carolina. The NAAS has good internal consistency and reliability (Cronbach alpha= .91). The NAAS was modeled after the Acculturation Rating Scale for Mexican Americans (Cuellar, Harris, & Jasso, 1980) and the Suinn-Lew Asian Self-Identity Acculturation Scale (Suinn, Rickard-Figueroa, Lew, & Vigil, 1987).

***Rosebud Personal Opinions Survey*** (Hoffmann et al., 1985)

The RPOS is a 32-item acculturation measure that considers Rosebud Sioux language use, value orientation, social behavior and customs, social interaction network, religious affiliation and practices, community of residence, occupational status, formal educational attainment, identification with traditional culture, ancestry or blood quantum. The study was conducted with 69 Lakota Sioux Rosebud reservation participants and suggests that respondents who socialize with other Lakota Sioux people, speak the language, and report a high degree of blood quantum were less likely to be acculturated. Reliability and validity information is limited and the instrument has only been tested in one community making its generalizability to other AN/AI groups questionable.

## **Enculturation**

***Enculturation*** involves how much a person identifies with their own cultural heritage, how they feel about being a part of that cultural heritage and how much they participate in traditional and common cultural practices (Winderowd et al., 2008; Zimmerman, Ramirez-Valles, Washienko, Walter, & Dyer, 1996). According to Kulis, et al., this makes enculturation important for maintaining positive self-identity (Kulis, Wagaman, Tso, & Brown, 2013). Enculturation is particularly important to consider for AN/AI and other Indigenous people as many of these communities have a history of systematic forced or coerced assimilation and acculturation into another majority culture's values and customs, which often leads to a decreased sense of connection to their cultures (Kulis et al., 2013; Zimmerman et al., 1996). Although some cultural traditions that have been lost due to assimilation may not fully be recovered, a strong sense of ethnic identity can play a role in promoting resilience during times of cultural change (Allen, Mohatt, Fok, Henry, & Burkett, 2014). Results from the Yup'ik Wellness Survey showed

that those who scored higher on the wellness enculturation measure reported more happiness, better overall health, greater communal mastery, a large supportive support network were more active, accepting, growth-oriented and less likely to use drugs and alcohol (Lardon, Wolsko, Trickett, Henry, & Hopkins, 2016). Similarly, results from the Zimmerman Enculturation Scale showed that enculturation strengthened the negative relationship between self-esteem and substance use among AI youth (Zimmerman et al., 1996). Lardon et al, recommends that future research should be done to assess the impacts of cultural revitalization in our changing society may impact enculturation and wellness in AN/AI communities in the face of current social, political and economic challenges faced in our contemporary society (Lardon et al., 2016).

### **Enculturation Measures**

Three enculturation measures specific to AN/AI communities are included in this review.

#### ***American Indian Enculturation Scale*** (Winderowd et al., 2008)

The AIES, a 17-item measure, was developed to be used in counseling practice to assess the enculturation of AI people, with an emphasis on participation in tribal activities (i.e. attendance at Indian church; attendance at Indian ceremony; choose Indian activity before others; socialize with Indians or have Indian friends; Use Indian medicine; seek help from Elders; attend powwows; sing Indian songs; participate in Indian prayers; write Indian stories; eat or cook Indian food; do Indian art; use or know the Indian language; attend Indian dances; know or participate in Tribal politics; Know or share Indian history; work in Indian communities/populations. . Three sample groups participated in the study—two groups were non-clinical (167 AI university students and community members in the Southwestern US and 324 AI university student and community members also from the Southwestern US) and one group was clinical (165 AI participants from Oklahoma). The AIES showed high internal consistency reliability estimates across the three samples, (Cronbach alpha of .91 for the clinical sample and Cronbach alphas of .90 for each of the two non-clinical samples). The AIES appears to be useful in a clinical and non-clinical setting with psychometric properties that show its usefulness. The authors suggest that there may be “traditional ways” for Alaska Native people that may not be included in the survey and suggest adapting relevant items for congruency.

#### ***The Yup'ik Wellness Survey*** (Lardon et al., 2016)

The YWS is a 24-item measure of Yup'ik wellness-related activities (perceived stress (e.g. In the last month, how often have you felt nervous?), cultural identity (e.g. how much they follow the traditional Yup'ik way of life), personal mastery (e.g. I can do just about anything I set my mind to.), communal mastery (e.g. By working together with friends and family I can solve many of the problems I have), social support (e.g. number of people in social groups relevant to Yup'ik culture and satisfaction with relationships), coping (e.g. I learn to live with my problems), happiness and general health (e.g. Consider how life is currently going for you. Overall, how happy are you with your life?) . The measure was developed using an iterative process involving Yup'ik community members who participated in focus groups and interviews. Responses to each item were assessed on two separate 3-point Likert scales, measuring the frequency with

which respondents reported engaging in each of the 24 items (almost never, sometimes, often) and the importance each activity held in terms of “how you live your life” (not at all important, somewhat important, very important). 493 Yup’ik and Cup’ik individuals (young adult-elder) from 7 different rural communities in Western Alaska responded to the survey. Individuals who scored higher on the wellness measure reported greater happiness, greater overall health, greater communal mastery, a larger and more satisfying social support network, and coping styles that were more likely to be active, accepting, and growth-oriented, and less likely to involve drugs and alcohol. Endorsement of a stronger Yup’ik identity was associated with greater happiness, greater overall health, and greater communal mastery and endorsement of a stronger White identity was associated with greater personal mastery, but neither happiness or health, highlighting the links between cultural identity, wellness, mastery, and coping in Yup’ik cultural context (Lardon et al., 2016).

### ***Zimmerman Enculturation Scale*** (Zimmerman et al., 1996)

The ZES scale is a 23-item measure normed on 120 Odawa and Ojibwe youth (11-18 years old) which represented 40% of the community’s youth population at the time of the study. A 5-point Likert scale was used to assess the domains of cultural affinity (pride and interest in Native American (NA) culture) and self-esteem. A checklist was used to determine participation in NA cultural family activities (e.g. ghost suppers, Pow Wows, sweat lodges, seasonal feasts, naming ceremonies, etc.). A 4-point Likert scale was used to assess Native American identity (i.e. Do you see yourself as NA?), mother’s/father’s NA identity (i.e. Does your mother/father see themselves as NA?); number of NA friends (i.e. how many close friends are NA?); and self-esteem. The construct of enculturation that incorporated cultural identity, cultural affinity, and involvement in traditional activities was supported in three separate analyses using confirmatory factor analysis.

## **Resilience**

***Resilience***, or the ability to overcome risk factors such as poverty, unemployment, traumatic events, historical trauma and discrimination through protective mechanisms of adaptation (Kelley & Small, 2016; LaFromboise et al., 2006; Wexler, 2014) is important to consider in the context of cultural wellbeing. Resilience factors (intrapersonal, interpersonal and community) such as self-esteem, enculturation, community support, perceived discrimination, spirituality and environment are all influenced by a person’s culture (Laurence J Kirmayer et al., 2009; LaFromboise et al., 2006; Wexler, 2014) so examining culture as it relates to resilience is also imperative in understanding cultural wellbeing. In fact, some scholars believe that resilience isn’t limited to specific individuals but is the “natural, human capacity to navigate life well” (Fleming & Ledogar, 2008). As Indigenous communities tend to consider wellbeing in a holistic manner, it makes sense that resilience may also have universal qualities that place value on the importance of family and community connection (Shaw, 2013), youth wellness, spirituality, knowledge and development of language, history and traditions which can be used as positive supports in dealing with language loss, change and trauma (L. J. Kirmayer, Dandeneau, Marshall, Phillips, & Williamson, 2013). Resilience measures

focus on protective strengths rather than risk factors, which shows how AN/AI people are succeeding rather than failing (Kelley & Small, 2016).

## Resilience Measures

Four measures for resilience were included in this review. Three were tested in AI communities and one was tested in an AN communities.

**Connor Davidson Resilience Scale** (Connor & Davidson, 2003; Goins, Gregg, & Fiske, 2012)

The CD-RISC is a 25-item measure that looks at five factors—personal competence, high standards and tenacity; trust tolerance, and strengthening effects of stress; positive acceptance of change and secure relationships; control and spiritual influences. Many studies have been done with the measure and it has sound psychometric properties and distinguishes between those with greater and lesser resilience. However, only one study that uses this scale with AI participants was located. The study involved assessing resiliency of AI elders using both the 25-item CDRS measure and the 10-item short version of the measure. Both measures performed similarly to other published studies. “The full version demonstrated adequate internal consistency and convergent and divergent validity, but a meaningful factor structure was not confirmed. The abbreviated version showed good internal consistency and convergent and divergent validity and appeared to have a stable one-factor solution”(Goins, Gregg, & Fiske, 2012). These authors suggest using the short version of the measure for AI elders.

**Ethnic, Culture, Religion/Spirituality scale** (Long & Nelson, 1999)

The ECRSS measure looks at levels of identification & involvement with AI culture based on a relational, rather than a linear way, i.e., worldview, sources of strength and resiliency, rather than problems or risk factors. Cronbach's Alpha exceeded .70 and factor analysis supported the internal consistency of the instrument. There was convergent and discriminant validity and differences in the utility of the instrument for both Native American (n = 73) and non-native (n = 74) samples showing that the measure has sufficient validity.

**Sources of Strength** (Kelley & Small, 2016)

The SOS is an 11-item measure that assesses social support (e.g. I feel my family cares about me, spends time with me, and is a strong support for me), healthy involvement in activities (e.g. I feel I keep involved in healthy activities like sports, music, art, teams, organizations), personal beliefs (e.g. I feel I have healthy beliefs and that I actively develop my faith, spirituality or culture), access to physical and mental health services (e.g. I feel I have good access to a doctor, nurse, or other medical help if I was ill, injured, or needed medicine), and leadership qualities (e.g. I take time to volunteer at school or in my community) using a 10-item Likert scale ranging from 1-strongly disagree to 10-strongly agree. Forty-eight AI individuals ages 8-40 years old from a Montana tribal community participated in the study following participation in a 3-day cultural camp. Cronbach's alpha for the scale was acceptable for all constructs measured (N = 11 items,  $\alpha = .945$ ). The correlation between items ranged from .42 to .87. The 11 items were linearly combined to measure cultural resilience and strength

which means that the scale was both reliable and valid (Kelley & Small, 2016). However, since the study only took place in a single community, the scale may not be valid or reliable for use in other AI communities. Researchers suggest that measures like this one, which are strengths-based, provide support for research that looks at resilience rather than deficiencies emphasizing protective factors or risk factors.

### ***Reflective Processes Scale*** (Allen et al., 2012)

The RPS is a 12-item multidimensional measure adapted from the adult Yup'ik Protective Factors scale which looks at awareness and thinking over the negative consequences of alcohol use (e.g. You want to stay away from being like those who drink too much., You want to be a good role model). Each item is prefaced with "Pretend someone would ask you to drink alcohol and you say no. How important are these reasons for you saying no." Scale items were developed using data on consequences of alcohol use and sobriety that were obtained from qualitative life history interviews with rural AN adults. Adaptations to the youth RPS included age appropriate rewording and dropping items that assumed previous alcohol use. Two hundred and eighty four AN youth age 12-18 (72% Yup'ik) participated in the study. Psychometric analysis showed convergent and discriminant validity. The measure was designed for AN youth in Southwest Alaska to reflect on the negative consequences of alcohol use. The researchers suggest that additional research is needed to examine RPS associations with mindfulness, alcohol expectancies, and other alcohol risk and protective factors, and to directly test its relation to alcohol use" (Allen et al., 2012).

### **Cultural connectedness**

Cultural connectedness is related to resilience as it has been shown to be a protective factor against a variety of risk factors. Within AN/AI communities, ***cultural connectedness*** involves being connected with other AN/AI individuals, to the AN/AI community, cultural traditions and values, family, retention of culture, knowledge of culture, practicing tradition, and attending cultural events (Lucero, 2009). Connectedness to family, community and the natural environment, in relationship to cultural connection, have also been identified as protective factors against mental health concerns associated with historical loss and perceived discrimination (A. Snowshoe, Crooks, Tremblay, Craig, & Hinson, 2015), substance use, alcohol abuse and suicide (Hill, Pace, & Robbins, 2010; Mohatt, Fok, Burket, Henry, & Allen, 2011). It has also encouraged connectedness to family, school, and community among First Nations youth and strengthened positive school and community networks (A. Snowshoe et al., 2015). To gain more clarity around the construct of cultural connectedness, Snowshoe, et al. developed the Cultural Connectedness Survey (CCS). Although cultural connectedness has been shown to be a protective factor, Mohatt et al. (2011) suggest that additional research should examine the different pathways that may exist between awareness of connectedness and protective factors, risk factors, recovery and resiliency (Mohatt et al., 2011).



## Cultural Connectedness Measures

Four cultural connectedness measures are included in this review. Two were tested in AN communities, one in a Canadian First Nations community and one with a Maori community in New Zealand.

### ***Awareness of Connectedness Scale*** (Mohatt et al., 2011)

The ACS is a 12-item measure of youth awareness of ways individual welfare is interrelated with family, community, and natural environment, and constitutes a “culture-specific protective factor from suicide and substance abuse among many Indigenous people”(Allen et al., 2012). Interrelatedness, in this sense refers to both positive and negative connotations of relatedness (Mohatt et al., 2011). The electronic response format that was used was a continuous “slider” scale with the image of a salmon that the participant clicked and moved across a blue background with three anchors—not at all, somewhat, a lot. Two hundred and eighty four (284) 12-18 year old students from all over rural Alaska completed the survey with the largest representation being Yup’ik (72%). The ACS displays good convergent and discriminant validity, and correlates positively with protective factors such as reasons for living and communal mastery. Results confirm awareness of connectedness as a measurable construct and show awareness of connectedness as positively related to well-being, recovery processes, and a sober and healthy life among American Indian/AN cultures (Mohatt et al., 2011). The researchers suggest limiting the clinical use of the scale to include all items as subscale items (i.e. individual and family) showed low reliability alone. However, the researchers do not believe it will interfere with using questions independently from subscales for research purposes, particularly for the purposes of developing other items or to add to the individual or family constructs to improve reliability of the items.

### ***Multicultural Mastery Scale*** (Allen et al., 2012; Fok, Allen, Henry, Mohatt, & People Awakening, 2012)

MMS is an 8-item measure adapted from Hoboff, Schroder, Wells and Malek’s 2002 Communal Mastery Scale (CMS) and Pearlin et al. 1981 Self-Mastery Scale (SMS) for Alaska Native (AN) youth to measure sense of efficacy over stress, coping and behavioral health outcomes through themselves, friends and family. Through community engagement, researchers worked closely with local community members on cultural, linguistic and developmental adaptations for use of the scale with AN adolescents. Two hundred and eighty-four 12-18 year old predominately Yup’ik (72%) adolescents from rural Western Alaska responded to the survey. The authors believe that since youth are likely to make distinctions between how they work with friends and family members to deal with life problems, each group should be measured independently. A 5-point Likert scale is used to measure Mastery—Self (e.g. I can do just about anything I really set my mind to) Mastery—Family (e.g. Working together with family I can solve many problems I have) and Mastery—Friends (e.g. What happens to me in the future depends on my ability to work well with other friends) subscales from the Multicultural Mastery Scale (MMS). Researchers suggest that revising the 5-item Likert scale with a three-item Likert scale response alternative would be appropriate. Results demonstrate a subset of items adapted for youth function satisfactorily.

Validation studies are limited as the scale score interpretations are different for the adapted version (MMS) than for the tools that were adapted (CMS, SMS).

***Cultural Connectedness Scale*** (Angela Snowshoe, 2015; A. Snowshoe et al., 2015)

The CCS is a 45-item measure that looks at cultural connectedness through three domains (identity (e.g. I feel a strong connection to my ancestors), traditions (e.g. I can understand some of my [Aboriginal/FNMI] language), and spirituality (e.g. I know my cultural/spirit name) for Canadian First Nations, Metis and Inuit youth. Three hundred and nineteen Saskatchewan and Southwestern Ontario First Nations, Métis and Inuit people age 11-29 participated in this study. A participatory iterative process was used in development of the scale and involved the use of key informant interviews and focus groups to refine the scale items. Cultural connectedness was positively associated with self-efficacy, sense of self, school connectedness, and life satisfaction. All three domains demonstrated adequate scale score reliabilities as demonstrated by Cronbach's alpha values of .872 for identity, .791 for traditions, and .808 for spirituality. The Pearson's r correlations among the three scales ranged from .49 to .69 indicating that these measures represent an underlying common construct of cultural connectedness as well as unique aspects associated with identity, traditions, and spirituality. Criterion validity was demonstrated with cultural connectedness dimensions correlating well with other youth well-being indicators. The researchers suggest that future research should include adaptations of the CCS items to reflect the unique cultural identities of community members that will participate in the research and that future longitudinal studies to test the differences in cultural connectedness as youth age would be valuable (A. Snowshoe et al., 2015).

***Multidimensional Model of Maori Identity and Cultural Engagement*** (Sibley & Houkamau, 2013)

The MMM-ICE is a 47-item, 6 factor measure developed for Maori that assesses: group membership evaluation (positive association with being a member of the Maori community); socio-political consciousness (knowledge of Maori history and politics), cultural efficacy and active identity engagement (ability to actively engage in Maori cultural activities), spirituality, interdependent self-concept (engagement with other Maori people), and authenticity of beliefs (about feeling like they belong in the Maori community). Four hundred and ninety two Maori community members age 14-75 years old participated in the survey. As the MMM-ICE was developed in consultation with Maori people, the items are worded in language that reflects the way Maori people express their identity in language they use every day. The researchers suggest that this will make it more meaningful as a standard measure to use in other studies of Maori people. The researchers also suggest that the scale could be used to examine different aspects of Maori identity and cultural engagement through education, to assess shifts in Maori identity over time through longitudinal studies and to assess protective cultural identity factors in relationship to Maori health. The MMM-ICE subscales represent distinct internally reliability factors.

**Cultural Identity**

A strong identification with AN/AI **cultural identity** is known to be a protective factor for substance abuse, suicide and other behavioral health conditions (Allen et al., 2012; Allen et al., 2014; Moran, 1998; Oetting & Beauvais, 1991; Wexler, 2014). There is also a strong link between cultural identification and family functioning, self-esteem, school adjustment, and drug use (Bryant Jr & LaFromboise, 2005; Oetting, Swaim, & Chiarella, 1998). Oetting and Beauvais (1991) suggest that a high level of identification with a particular culture should show a large probability of engagement in culture-specific behaviors (i.e. specific spiritual practices, cultural traditions) that a person believes are part of that particular culture. Shaw (2013) suggests that youth participation in cultural activities, particularly subsistence-related activities, are important to nurturing AN youth wellbeing, in general, by creating positive self-esteem that is related to “engagement in socially-valued activity (i.e. doing), such as being helpful to others, than with individual personality characteristics (i.e. being) (Shaw, 2013). Others (Manuela & Sibley, 2013; Walters, 1999) believe that cultural identity and cultural behaviors are related; however, they should be assessed separately. A person may identify with a particular culture but not exhibit common behavior characteristics of that cultural group. For example, a person may identify as being Alaska Native but not participate in subsistence activities or speak an Alaska Native language.

### **Cultural Identity Measures**

Six measures that address cultural identity are included in this review. One focuses on an AN Yup'ik communities, one on an AN Athabascan community, one with the Maori in New Zealand and three examine AI communities, generally.

#### **Orthogonal Cultural Identification Scale** (Oetting et al., 1998)

The OCIS is a 6-item measure that assesses family ways of life, family success, personal success, family cultural traditions, and personal cultural traditions. Instead of cultures being placed at opposite ends of a continuum (i.e. enculturated vs. acculturated), cultural identification dimensions are independent of each other, and increasing identification with one culture does not require decreasing identification with another. “The orthogonal identification model indicates that any pattern, any combination of cultural identification, can exist and that any movement or change is possible. There can be highly bicultural people, unicultural identification, high identification with one culture and medium identification with another, or even low identification with either culture” (Oetting & Beauvais, 1991). The scale has been shown to be reliable in adolescent, youth and adult AN/AI populations.

#### **Alaska Native Cultural Identification Scale** (Mohatt et al., 2011; Wolsko, Lardon, Mohatt, & Orr, 2007)

The ANCIS is an 8-item measure adapted from the Orthogonal Cultural Identification Scale (Oetting et al., 1998). The AN Cultural Identification subscale (ANCI;  $\alpha = .77$ ) measures identification with AN culture; the White American Cultural Identification subscale (WACI;  $\alpha = .63$ ) measures dominant culture identification (Allen et al., 2012). The ANCI uses two questions to lead each item: “How much do you live by or follow the [Native/White American] way of life?” and “How much do you speak [Native language/English].” Researchers asked these lead questions (“How much do you live by or follow the [Native/White American] way of life?”/ “How much do you speak [Native

language/English]” under the heading “When you are at [home/school]” because cultural behavior and identification can differ based on whether a youth is at home or at school (Okazaki & Sue, 1995). This resulted in two subscales, Alaska Native Identification (ANI) and White American Identification (WAI), which tap elements of identity with the culture of origin and the dominant culture (Mohatt et al., 2011).

***Pacific Identity and Wellbeing Scale revised*** (Manuela & Sibley, 2013)

The PIWBS is a 35-item self-report measure that assesses five factors of Pacific identity and well-being—perceived familial wellbeing (satisfaction with familial relationships, respect, happiness, and security), perceived societal wellbeing (satisfaction with support from government, local communities, and one’s position in NZ society), group membership evaluation (positive affect derived from group membership), Pacific connectedness and belonging (sense of belonging and connections with Pacific others and the Pacific group at a general level), religious centrality and embeddedness (extent to which an individual feels that religion is intertwined with one’s Pacific culture and identity), cultural efficacy (personal and cultural resources to act within a Pacific cultural or social context). Nine hundred and nineteen Pacific Islanders (Samoan, Cook Island, Tongan, Niuean, and other Pacific Islanders) from 18-74 years old participated in the study, which focuses specifically on diabetes. Confirmatory Factor Analysis supported the scale. Validation analyses using a sample subset indicated that the PIWBS-R subscales predicted distinct criterion outcomes. Researchers suggest the scale could be useful for future longitudinal studies to assess changes in Pacific Islander identity over time to predict positive psychological outcomes or it could potentially be used by psychologists to screen Pacific Islanders for identity-related concerns.

***American Indian Adolescent Identity*** (Markstrom, Whitesell, & Galliher, 2011)

The AIAI is an 11-item measure that examines components of identification (clan or tribe, self-perception, blood quantum), connection (kinship, clan or tribe, ancestry, land and place), and culture/spirituality (language, history, world view/values, beliefs/practices). Reliability and validity information was unavailable for review.

***Bicultural Ethnic Identity Scale*** (Moran, 1998)

The BEIS is a 35-item measure developed for American Indians. This scale is designed to measure cultural alignment with Native and non-Native ways of living. The measure includes items on ethnic identity, social competencies, personal mastery and locus of control, self-esteem, and perceived social support. “Results show that for all four measures of positive psychological well-being, this expected pattern was obtained at statistically significant levels. MANOVA was used to test for the impact of level of ethnic identity on these four dependent variables as a set. The multivariate Wilks Lamda was statistically significant ( $p < .0001$ ) and the univariate results were the same as the individual ANOVA results” (Moran, 1998).

***Cultural Values Survey*** (Shaw, 2013)

The CVS is a 13-item measure developed for Dena’ina Athabascan youth to assess the importance of select cultural values on how “subsistence and other traditional cultural activities figure into the contemporary wellbeing and future aspirations of rural Alaska

Native youth” (Shaw, 2013). The scale was adapted from a cultural values list developed by the [Alaska Native Knowledge Network](#). The measure includes items on family, work, community cooperation, respect for knowledge, land, and traditions; connection to the environment; ancestry, and spirituality. Overall, youth who completed the survey reported the cultural values as important with family, respect for elders and others, respect for wisdom from life experiences and respect for land and nature being most important. The researcher noted that social desirability or enculturated social endorsement by parent and elders may have potentially biased the results of the data (Shaw, 2013). Only 14 youth completed the measure; therefore, results may not be representative of other Dena’ina Athabascan youth. No reliability and validity data were available for review.

### ***Cultural Wellbeing Measures Indicators Table***

Table 1 [See Spreadsheet] provides an overview of the reviewed cultural wellbeing measures in relation to thirteen categories of indicators identified across the measures. These indicator categories were generated based on a textual analysis of the reviewed literature, particularly in sections of manuscripts where the authors provided description of the scale and its items. The table includes notation of the measures that correspond to indicator types (*blood quantum, community connection, cultural identity cultural knowledge, emotional wellbeing, environment/land/natural heritage, family/genealogy/ancestry, intellectual/ educational achievement, language, physical wellbeing, resilience/vitality, social wellbeing, and spiritual wellbeing*). The notations include the original terminology that was used in the reviewed articles to show the actual alignment of measure items to the indicator categories. The most common indicators identified in the review are cultural knowledge, social wellbeing, family/genealogy/ancestry, and spiritual wellbeing. The least common are blood quantum, emotional wellbeing, intellect/educational achievement, and physical wellbeing. Information about each of the indicator types is included below. No single category of measure (*acculturation, enculturation, cultural connectedness, cultural identity, or resiliency*) captures all of the included cultural wellbeing indicators. Therefore, using multiple pre-existing measures or a collection of specific items from measures is something to consider.

### ***Blood quantum***

This indicator category relates to the degree of AN/AI blood a person considers themselves to have. Acculturation scales were most likely to have questions related to this indicator.

Measure that include this indicator are the American Indian Adolescent Identity (Markstrom, Whitesell, & Galliher, 2011), and Rosebud Personal Opinions Survey (Hoffmann, Dana, & Bolton, 1985).

### ***Community connection***

This indicator category relates to how connected a person feels to their culture or community. It can include a feeling of attachment to a culture, a sense of belonging to a

community, choosing to live in a community, etc. Acculturation and enculturation have the most scales in this indicator type.

Measures that include this indicator are the Acculturation Scale for American Indians (Choney et al., 1995), American Indian Enculturation Scale (Winderowd et al., 2008), Awareness of Connectedness Scale (Mohatt, Fok, Burket, Henry, & Allen, 2011), and Cultural Values Survey (Shaw, 2013), Native American Acculturation Scale (Garrett & Pichette, 2000; Garrett, Torres Rivera, Dixon, & Myers, 2009), Living in Two Worlds Survey (LaFromboise, 1999), Multidimensional Model of Maori Identity and Cultural Engagement (Sibley & Houkamau, 2013), Pacific Identity and Wellbeing Scale revised (Manuela & Sibley, 2013), Rosebud Personal Opinions Survey (Hoffmann, Dana, & Bolton, 1985), Sources of Strength (Kelley & Small, 2016), The Yup'ik Wellness Survey (Lardon, Wolsko, Trickett, Henry, & Hopkins, 2016).

### *Cultural identity*

This indicator category regards a person's pride and self-esteem regarding their identity. Cultural identity has the most scales in this type of indicator.

Measure that include this indicator are the Native American Acculturation Scale (Garrett & Pichette, 2000; Garrett, Torres Rivera, Dixon, & Myers, 2009); The Yup'ik Wellness Survey (Lardon, Wolsko, Trickett, Henry, & Hopkins, 2016), Zimmerman Enculturation Scale (Zimmerman et al., 1996), Cultural Connectedness Scale (Snowshoe, 2015; Snowshoe, Crooks, Tremblay, Craig, & Hinson, 2015), Alaska Native Cultural Identification Scale (Mohatt et al., 2011), Orthogonal Cultural Identification Scale (Oetting et al., 1998), Pacific Identity and Wellbeing Scale revised (Manuela & Sibley, 2013), American Indian Adolescent Identity (Markstrom, Whitesell, & Galliher, 2011), Bicultural Ethnic Identity Scale (Moran, 1998), and Cultural Values Survey (Shaw, 2013).

### *Cultural knowledge*

This indicator category includes items related to knowledge of cultural customs, values, stories, narratives, tribal politics, arts, and other cultural knowledge. All categories of measures scales have at least one measure that contains items in this indicator with Acculturation and Enculturation having the most scales with this type of indicator.

Measures that include this indicator are the Acculturation Scale for American Indians (Choney et al., 1995) AKA Life Perspectives Scale (Berryhill, 1997), Living in Two Worlds Survey (LaFromboise, 1999), Rosebud Personal Opinions Survey (Hoffmann, Dana, & Bolton, 1985), American Indian Enculturation Scale (Winderowd et al., 2008), Zimmerman Enculturation Scale (Zimmerman et al., 1996), Cultural Connectedness Scale (Snowshoe, 2015; Snowshoe, Crooks, Tremblay, Craig, & Hinson, 2015), and Cultural Values Survey (Shaw, 2013), Multidimensional Model of Maori Identity and Cultural Engagement (Sibley & Houkamau, 2013), Orthogonal Cultural Identification Scale (Oetting et al., 1998), American Indian Adolescent Identity (Markstrom, Whitesell, & Galliher, 2011), Ethnic, Culture, Religion/Spirituality scale (Long & Nelson, 1999).

### *Emotional wellbeing*

This indicator category includes items related to positive emotions such as happiness, hope and optimism.

Only several measures included items of this type, including Cultural Values Survey (Shaw, 2013), The Yup'ik Wellness Survey (Lardon, Wolsko, Trickett, Henry, & Hopkins, 2016), and Sources of Strength (Kelley & Small, 2016).

### *Environment/land/natural heritage*

This indicator category includes items related to connection with the natural environment, land, and natural heritage (i.e. significant cultural landmarks).

Measures that include this indicator are the Native American Acculturation Scale (Garrett & Pichette, 2000; Garrett, Torres Rivera, Dixon, & Myers, 2009), American Indian .Enculturation Scale (Winderowd et al., 2008), Awareness of Connectedness Scale (Mohatt, Fok, Burket, Henry, & Allen, 2011), American Indian Adolescent Identity (Markstrom, Whitesell, & Galliher, 2011) and Cultural Values Survey (Shaw, 2013).

### *Family/genealogy/ancestry*

This indicator category relates to association with family, genealogy and ancestral connection. Acculturation and cultural identity measures represent a large number of measures in this indicator type.

Measures that include this indicator are the Native American Acculturation Scale (Garrett & Pichette, 2000; Garrett, Torres Rivera, Dixon, & Myers, 2009), Rosebud Personal Opinions Survey (Hoffmann, Dana, & Bolton, 1985), Zimmerman Enculturation Scale (Zimmerman et al., 1996), Awareness of Connectedness Scale (Mohatt, Fok, Burket, Henry, & Allen, 2011), Communal Mastery Scale (Allen et al., 2012; Fok, Allen, Henry, & Mohatt, 2012), Orthogonal Cultural Identification Scale (Oetting et al., 1998), Pacific Identity and Wellbeing Scale revised (Manuela & Sibley, 2013), American Indian Adolescent Identity (Markstrom, Whitesell, & Galliher, 2011) and Cultural Values Survey (Shaw, 2013).

### *Intellect/educational achievement*

This indicator category includes items related to educational achievement (i.e. grades, diplomas, degrees) and other intellectual pursuits relevant to wellbeing.

The Rosebud Personal Opinions Survey (Hoffmann, Dana, & Bolton, 1985) was the only measure that contained items in this category.

### *Language*

This indicator category relates to Indigenous language and may include understanding, speaking or learning of an Indigenous language.

Acculturation measures were more likely to include items relevant to language. Measures that include this indicator are Acculturation Scale for American Indians (Choney et al., 1995) AKA Life Perspectives Scale (Berryhill, 1997), Native American

Acculturation Scale (Garrett & Pichette, 2000; Garrett, Torres Rivera, Dixon, & Myers, 2009), Rosebud Personal Opinions Survey (Hoffmann, Dana, & Bolton, 1985), American Indian Enculturation Scale (Winderowd et al., 2008), and American Indian Adolescent Identity (Markstrom, Whitesell, & Galliher, 2011)

### *Physical wellbeing*

This indication category includes items about physical health, exercise and general physical activity as they relate to cultural wellbeing.

The Sources of Strength (Kelley & Small, 2016) measure was the only one that contained items in this category.

### *Resilience/vitality*

This indicator category includes items relevant to resiliency and vitality of culture.

All resiliency measures included items in this indicator type-- Connor Davidson Resilience Scale, (Connor & Davidson, 2003), Ethnic, Culture, Religion/Spirituality scale (Long & Nelson, 1999), Sources of Strength (Kelley & Small, 2016), Reflective Processes Scale (Allen et al., 2012).

### *Social wellbeing (interpersonal relationships, support, reciprocity)*

This indicator category includes items related to social wellbeing, which includes interpersonal relationships, social support and reciprocity.

All acculturation and enculturation items include items of this type--Acculturation Scale for American Indians (Choney et al., 1995) AKA Life Perspectives Scale (Berryhill, 1997), Living in Two Worlds Survey (LaFromboise, 1999), Native American Acculturation Scale (Garrett & Pichette, 2000; Garrett, Torres Rivera, Dixon, & Myers, 2009), Rosebud Personal Opinions Survey (Hoffmann, Dana, & Bolton, 1985), American Indian Enculturation Scale (Winderowd et al., 2008), The Yup'ik Wellness Survey (Lardon, Wolsko, Trickett, Henry, & Hopkins, 2016), Zimmerman Enculturation Scale (Zimmerman et al., 1996). Several measures in each of the other scale categories also included this type of indicator-- Multidimensional Model of Maori Identity and Cultural Engagement (Sibley & Houkamau, 2013), Pacific Identity and Wellbeing Scale revised (Manuela & Sibley, 2013), Bicultural Ethnic Identity Scale (Moran, 1998), Cultural Values Survey (Shaw, 2013) Sources of Strength (Kelley & Small, 2016).

### *Spiritual wellbeing*

This indicator category includes both Indigenous and non-Indigenous spiritual practices and beliefs like church, uses of tribal medicine, etc.

Measures from each of the scale categories had measures included in this indicator type. Acculturation scales that have items in this indicator are Acculturation Scale for American Indians (Choney et al., 1995) AKA Life Perspectives Scale (Berryhill, 1997), Rosebud Personal Opinions Survey (Hoffmann, Dana, & Bolton, 1985), American Indian



Enculturation Scale (Winderowd et al., 2008), Cultural Connectedness Scale (Snowshoe, 2015; Snowshoe, Crooks, Tremblay, Craig, & Hinson, 2015), Multidimensional Model of Maori Identity and Cultural Engagement (Sibley & Houkamau, 2013), Pacific Identity and Wellbeing Scale revised (Manuela & Sibley, 2013), American Indian Adolescent Identity (Markstrom, Whitesell, & Galliher, 2011), Cultural Values Survey (Shaw, 2013), Connor Davidson Resilience Scale (Connor & Davidson, 2003), and Ethnic, Culture, Religion/Spirituality scale (Long & Nelson, 1999).

## Search Strategy

Various information databases were used to obtain a broad perspective of how different disciplines measure cultural wellbeing among AI/AN and other Indigenous communities. ERIC was used for education-related measures. For medical-related measures, PubMed, CINAHL and Science Direct were used and PsychInfo, Proquest, EbscoHost and Scopus were used for other social science-related measures (i.e. psychology, anthropology, sociology, humanities). Peer-reviewed articles were searched for cultural wellbeing measures followed by search engine queries using Google Scholar to identify other relevant peer-reviewed measures that were not identified using the other database queries.

## Search Terms

The following search terms (or iterations of these search terms) were used to locate literature for this review:

- Cultural Wellbeing *AND* Scale *OR* Measure *AND* Alaska Native *OR* American Indian *OR* Native American *OR* Indigenous
- Cultural Connectedness Scale *OR* Measure *AND* Alaska Native *OR* American Indian *OR* Native American *OR* Indigenous
- Cultural Wellness Scale *OR* Measure *AND* Alaska Native *OR* American Indian *OR* Native American *OR* Indigenous
- Cultural Wellbeing *AND* Scale *OR* Measure *AND* Alaska Native *OR* American Indian *OR* Native American *OR* Indigenous
- Acculturation Scale *OR* Measure *AND* Alaska Native *OR* American Indian *OR* Native American *OR* Indigenous
- Enculturation Scale *OR* Measure *AND* Alaska Native *OR* American Indian *OR* Native American *OR* Indigenous
- Resilience Scale *OR* Measure *AND* Culture *AND* Alaska Native *OR* American Indian *OR* Native American *OR* Indigenous

## Limitations

This literature review is limited by search criteria specific to acculturation/enculturation, cultural wellbeing/wellness, cultural connectedness, cultural resiliency, and cultural identity measures for Alaska Native, American Indian and other Indigenous communities. With that being said, this review likely contains gaps in the measures

relevant to cultural wellbeing, as not all measures may be published or accessible by means of this applied search strategy. Moreover, measures used in other cultural or ethnic groups that were not included in this review may also be applicable to AN/AI and other Indigenous communities. This review focused primarily on existing measures in which research has already been published in AN/AI and other Indigenous communities.

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# Annotated Bibliography

## Acculturation

Bryant Jr, A. and T. D. LaFromboise (2005). "The racial identity and cultural orientation of Lumbee American Indian high school students." Cultural Diversity and Ethnic Minority Psychology **11**(1): 82.

The uncertain and complex lineage of the Lumbee American Indian tribe has made the issue of identity of prime concern. The cultural identification, racial identification, bi-cultural competence, and perceived school environment for 103 Lumbee Indian high school students were examined in this study. Higher self-ratings on American Indian cultural competence and American Indian cultural identification than on White cultural competence and White cultural identification was found, and t-test comparisons revealed no gender differences on responses to the instruments. Analysis of variance was conducted to assess whether differences in perceived school environment could be attributed to cultural orientation. Rather than appearing assimilated, this generation of Lumbee tends to exhibit J. E. Helms's (1995b) Internalization identity status and an American Indian cultural orientation.

Choney, S. K., et al. (1995). "The acculturation of American Indians: Developing frameworks for research and practice."

This article includes a brief demographic description of the US American Indian/Alaska Native (AI/AN) population, a rationale for the discussion of acculturation rather than racial identity, and an overview of historical and present-day acculturative influences. Information about the effects of acculturation on some of the more prevalent mental health issues of AI/AN and on help-seeking behavior is also presented. The authors critically review existing models of acculturation and offer an alternative model (Acculturation scale for American Indians) that attempts to address some of the deficits of earlier models. They also include recommendations for counseling and research with AI/AN individuals and groups.

Garrett, M. T. and E. F. Pichette (2000). "Red as an apple: Native American acculturation and counseling with or without reservation." Journal of Counseling and Development: JCD **78**(1): 3.

The United States has a long history of advocating policies of both extermination and assimilation of Native peoples. This historical context provides an important backdrop for understanding issues of trust/mistrust and the impact of acculturation on Native Americans who often find they have to reconcile 2 cultures. Therefore, counselors must assess a Native American client's level of acculturation rather than making assumptions based on the limited information offered by appearance or other personal characteristics. The Native American Acculturation Scale is presented as an operationalized means of formally and informally assessing a Native American client's cultural identity.

Garrett, M. T., et al. (2009). "Acculturation and wellness of Native American adolescents in the United States of North America." Perspectivas sociales **11**(1 y 2): 41-67.

Cultural conflicts and the process of acculturation contribute to feelings of boredom, anxiety, depression, isolation, stress, self-doubt, alienation, and rejection among Native American high school students. Further, acculturation may have a negative impact on the identity development and wellness of these students. The purpose of this pilot study was to: (a) assess and compare the levels of acculturation of Native American and non-Native American 9th, 10th, 11th, and 12th grade students; and (b) examine the relationship between level of acculturation and wellness for the Native American students. Results indicated significant differences between Native American

and non-Native American students' levels of acculturation; and significant differences between the Native students' three levels of acculturation on some of the 17 scales of wellness

Hoffmann, T., et al. (1985). "Measured acculturation and MMPI-168 performance of Native American adults." Journal of Cross-Cultural Psychology **16**(2): 243-256.

To test the hypothesis that acculturation influences MMPI performance of Native Americans, a 32-item instrument was developed to measure five components of acculturation. The MMPI-168 and the acculturation instrument were administered to 69 Rosebud Sioux. Significant elevations occurred on F and Scales 4, 6, 8, and 9. Intercorrelations among the acculturation subscales suggested a common dimension underlying social, language, and blood quantum, with values and education/occupation being relatively independent. The social, values, and language subscales were significantly related to validity scales L and F. A preponderance of significant correlations was obtained between values, language, and education/ occupation, and MMPI-168 clinical Scales 2, 4, 7, 8, and 0. These results suggest that caution be used in interpreting the MMPI profiles of Native Americans.

Reynolds, A. L., et al. (2012). "Dimensions of acculturation in Native American college students." Measurement and Evaluation in Counseling and Development **45**(2): 101-112.

Exploratory and confirmatory factor analyses were applied to the responses of two respective independent samples of Native American college students on the Native American Acculturation Scale (NAAS). Three correlated dimensions (core self, cultural self-expression, and cultural and community engagement) were found to underlie NAAS items and these dimensions may also comprise a broader higher order dimension of Native American acculturation.

## Enculturation

Lardon, C., et al. (2016). "Assessing health in an Alaska native cultural context: The Yup'ik Wellness Survey." Cultural Diversity and Ethnic Minority Psychology **22**(1): 126-136.

The development and validation of a wellness measure among the Yup'ik of the Yukon-Kuskokwim Delta in western Alaska is presented, with the overarching goal of supporting locally relevant health practices in this Alaska Native population. A survey containing the wellness measure and several additional psychosocial variables was completed by 493 Yup'ik individuals from 7 different highly rural communities in western Alaska. Participants ranged in age from 14 to 94 ( $M = 38.55$ ,  $SD = 17.14$ ), and slightly more than half were female (58.62%). Individuals who scored higher on the wellness measure reported greater happiness, greater overall health, greater communal mastery, a larger and more satisfying social support network, and coping styles that were more likely to be active, accepting, and growth-oriented, and less likely to involve drugs and alcohol. This project advances research on the health implications of enculturation by specifying particular patterns of culturally sanctioned beliefs and behaviors that appear most beneficial.

Winderowd, C., et al. (2008). "Development of the American Indian Enculturation Scale to assist counseling practice." Am Indian Alaska Native Mental Health Res **15**(2): 1.

Understanding the extent of commitment to and identification with traditional cultural experiences is essential for working with American Indian (AI) people (Whitbeck, 2006). The purpose of this study was to determine the usefulness of a practical measure of enculturation for AI people by examining its reliability and validity within the context of three previous studies.

Zimmerman, M. A., et al. (1996). "The development of a measure of enculturation for Native American youth." American journal of community psychology **24**(2): 295-310.

Enculturation is the process by which individuals learn about and identify with their ethnic minority culture. It is distinguished from acculturation, which refers to the process by which an ethnic minority individual is assimilated into the majority culture. Three studies with Native American youths are reported that describe the development of a measure of enculturation for Native American youths. Development of a measure of enculturation provides a foundation upon which to build a body of literature that focuses on strengths in a youth's life rather than on deficits. Results of the first study (n = 120), a confirmatory factor analysis, indicated that cultural affinity, Native American identity, and family involvement in traditional activities adequately represent the construct of enculturation. The study also provides some convergent validity for this interpretation. The second study examines factor invariance for enculturation among youths with data from over 2 years (n = 69). The factor structure was similar across time. The third study replicates the factor structure and validity analyses with a new sample (n = 42). Usefulness of the measure for assessing protective factors and stressing ethnicity over simple assessment of race categories is discussed.

## Connectedness

Fok, C. C., et al. (2012). "Multicultural Mastery Scale for youth: multidimensional assessment of culturally mediated coping strategies." *Psychol Assess* **24**(2): 313-327.

Self-mastery refers to problem-focused coping facilitated through personal agency. Communal mastery describes problem solving through an interwoven social network. This study investigates an adaptation of self- and communal mastery measures for youth. Given the important distinction between family and peers in the lives of youth, these adaptation efforts produced Mastery-Family and Mastery-Friends subscales, along with a Mastery-Self subscale. We tested these measures for psychometric properties and internal structure with 284 predominately Yup'ik Eskimo Alaska Native adolescents (12- to 18-year-olds) from rural, remote communities—a non-Western culturally distinct group hypothesized to display higher levels of collectivism and communal mastery. Results demonstrate a subset of items adapted for youth function satisfactorily, a 3-response alternative format provided meaningful information, and the subscale's underlying structure is best described through 3 distinct first-order factors organized under 1 higher order mastery factor.

Mohatt, N. V., et al. (2011). "Assessment of awareness of connectedness as a culturally-based protective factor for Alaska native youth." *Cultur Divers Ethnic Minor Psychol* **17**(4): 444-455.

Research with Native Americans has identified connectedness as a culturally based protective factor against substance abuse and suicide. Connectedness refers to the interrelated welfare of the individual, one's family, one's community, and the natural environment. The researchers developed an 18-item quantitative assessment of awareness of connectedness and tested it with 284 Alaska Native youth. Evaluation with confirmatory factor analysis and item response theory identified a 12-item subset that functions satisfactorily in a second-order four-factor model. The proposed Awareness of Connectedness Scale (ACS) displays good convergent and discriminant validity, and correlates positively with hypothesized protective factors such as reasons for living and communal mastery. The measure has utility in the study of culture-specific protective factors and as an outcomes measure for behavioral health programs with Native American youth.

Sibley, C. G. and C. A. Houkamau (2013). "The multi-dimensional model of Māori identity and cultural engagement: Item response theory analysis of scale properties." *Cultural Diversity and Ethnic Minority Psychology* **19**(1): 97.

The authors assert that there is a need for culture-specific measures of identity that delineate the factors that most make sense for specific cultural groups. One such measure, recently developed specifically for Māori peoples, is the Multi-Dimensional Model of Māori Identity and Cultural

Engagement (MMM-ICE). Māori are the indigenous peoples of New Zealand. The MMM-ICE is a 6-factor measure that assesses the following aspects of identity and cultural engagement as Māori: (a) group membership evaluation, (b) socio-political consciousness, (c) cultural efficacy and active identity engagement, (d) spirituality, (e) interdependent self-concept, and (f) authenticity beliefs. This article examines the scale properties of the MMM-ICE using item response theory (IRT) analysis in a sample of 492 Māori. The MMM-ICE subscales showed reasonably even levels of measurement precision across the latent trait range. Analysis of age (cohort) effects further indicated that most aspects of Māori identification tended to be higher among older Māori, and these cohort effects were similar for both men and women. This study provides novel support for the reliability and measurement precision of the MMM-ICE. The study also provides a first step in exploring change and stability in Māori identity across the life span. A copy of the scale, along with recommendations for scale scoring, are included in the article.

Snowshoe, A. (2015). The Cultural Connectedness Scale and its Relation to Positive Mental Health among First Nations Youth, The University of Western Ontario.

The mental health and wellbeing of youth is one of the most urgent concerns affecting many First Nations communities across Canada. Despite a growing recognition that cultural connectedness (i.e., the extent to which an individual is integrated within his or her First Nations culture) is an important factor for promoting the mental health of First Nations youth, there remains a clear need for a conceptual model that organizes, explains, and leads to an understanding of the resiliency mechanisms underlying this construct. Study 1 involved the development of the Cultural Connectedness Scale (CCS) with a sample of 319 First Nations, Métis, and Inuit youth (M age = 15.3; 147 male, 162 female; 10 unspecified) enrolled in grades eight through 12 from urban and reserve schools in Saskatchewan and Ontario. Study 2 explored the relationships between the components of cultural connectedness and a number of mental health indicators using a brief version of the CCS with a sample of 290 participants (M age = 14.4; 140 male, 140 female, and 10 unspecified). The CCS development combined rational expert judgments and empirical data to refine the item pool to a representative set. Exploratory factor analysis (EFA) was used to examine the latent structure of the cultural connectedness items and a confirmatory factor analysis (CFA) was used to test the fit of the final 29-item EFA model. A more parsimonious version was then proposed to improve the practical utility of the CCS. The resulting 10-item Cultural Connectedness Scale – Short Version (CCSS) supported the invariance of the major structural elements of the construct and the relationships between the CCS-S and a number of mental health indicators were examined using hierarchical multiple linear (HML) regression analyses. The results revealed that cultural connectedness was positively associated with self-efficacy, sense of self (present and future), school connectedness, and life satisfaction and, in some cases, predicted mental health beyond other established social determinants of health. This research initiative provides a foundation for future strengths-based work in the area of First Nations youth resilience. The findings have a number of potential applications for research, prevention, and program evaluation.

Snowshoe, A., et al. (2015). "Development of a Cultural Connectedness Scale for First Nations youth." *Psychological Assessment* **27**(1): 249-259.

Despite a growing recognition of cultural connectedness as an important protective factor for First Nations (FN) peoples' health, there remains a clear need for a conceptual model that organizes, explains, and leads to an understanding of the resiliency mechanisms underlying this concept for FN youth. The study involved the development of the Cultural Connectedness Scale (CCS) to identify a new scale of cultural connectedness. A sample of 319 FN, Métis, and Inuit youths enrolled in Grades 8–12 from reserve and urban areas in Saskatchewan and Southwestern Ontario, Canada, participated in the current study. A combination of rational expert judgments and empirical data were used to refine the pool of items to a set that is a representative sample of the indicators of the cultural connectedness construct. Exploratory factor analysis (EFA) was used to examine the latent structure of the cultural connectedness items, and a confirmatory factor analysis was used to test the fit of a more parsimonious version of the final EFA model.



The resulting 29-item inventory consisted of 3 dimensions: identity, traditions, and spirituality. Criterion validity was demonstrated with cultural connectedness dimensions correlating well with other youth well-being indicators. The conceptualization and operationalization of the cultural connectedness has a number of potential applications for both research and prevention. This study provides an orienting framework that guides measurement of cultural connectedness that researchers need to further explore the role of culture in enhancing resiliency and well-being among FN youth in Canada.

## Cultural Identity

Kulis, S., et al. (2013). "Exploring Indigenous Identities of Urban American Indian Youth of the Southwest." Journal of Adolescent Research **28**(3): 271-298.

This study examined the indigenous identities of urban American Indian youth using measures related to three theoretical dimensions of Markstrom's identity model: identification (tribal and ethnic heritage), connection (reservation ties), and involvement in traditional cultural practices and spirituality. Data came from self-administered questionnaires completed by 142 urban American Indian middle school students in a southwestern metropolitan area with the largest urban American Indian population in the United States. Using both quantitative and qualitative measures, descriptive statistics showed most youth were connected to all three dimensions of indigenous identity. Hierarchical regression analyses showed that youth with the strongest sense of American Indian ethnic identity had native fathers and were heavily involved in traditional cultural practices and spirituality. Although urban American Indians may face challenges in maintaining their tribal identities, the youth in this study appeared strongly moored to their native indigenous heritage. Implications for future research are discussed.

Lucero, N. M. (2009). 'Creating an Indian space in the city': Development, maintenance, and evolution of cultural identity and cultural connectedness among multiple generations of urban American Indians. **AAI3372501**: 3640.

This study examined the cultural identity and cultural connectedness of multiple generations of American Indians whose families had been living continuously in an urban area for 40 to 50 years. The intent of the current study was to better understand how members of this group developed and maintained their cultural identities while living away from a tribal community and as a small percentage of the population of a large and culturally diverse metropolitan area. The study also sought to identify what constituted cultural connectedness -- a term used frequently amongst urban Indians that appears to encompass factors of importance to being American Indian. Three or four generations of members from five families were interviewed to explore not only the development and maintenance of cultural identity and connectedness, but of equal importance, how these phenomena may be evolving over the course of multiple generations and are impacted by urban living. A phenomenological approach was utilized to capture the lived experiences of study participants, and interviews were analyzed using Giorgi's methodology for the phenomenological reduction of qualitative data. Findings revealed meaning structures (what constituted the phenomena) and styles (how the phenomena were exhibited) of cultural identity and cultural connectedness, including the cognitive, affective, and behavioral constituents of each of these phenomena. Implications for social work research, education, and practice were discussed. The new knowledge generated by this study may help agencies and those working with urban Indians to design and provide services that are more culturally relevant, as well as assist practitioners in their efforts to be better informed and skilled at working with this population.

Manuela, S. and C. G. Sibley (2013). "The Pacific Identity and Wellbeing Scale (PIWBS): A Culturally-Appropriate Self-Report Measure for Pacific Peoples in New Zealand." Social Indicators Research **112**(1): 83-103.

The PIWBS is a culturally appropriate self-report measure assessing a five-factor model of Pacific identity and wellbeing. Items and construct definitions were developed through qualitative interviews, review of psychological theories, and previous research on Pacific concepts of ethnic identity and wellbeing. Exploratory and confirmatory factor analyses supported the model (Study 1 N = 143; Study 2 N = 443). The proposed five-factor model of Pacific identity and wellbeing includes scales assessing (1) Perceived Familial Wellbeing, (2) Perceived Societal Wellbeing, (3) Pacific Connectedness and Belonging, (4) Religious Centrality and Embeddedness, and (5) Group Membership Evaluation. The PIWBS provides a culturally appropriate valid and reliable assessment tool that can be used for within-cultural research for Pacific peoples from a Pacific perspective. A copy of the PIWBS and scoring instructions for its use are included in the article.

Markstrom, C. A., et al. (2011). "Ethnic identity and mental health among American Indian and Alaska Native adolescents." American Indian and Alaska Native children and mental health: Development, context prevention, and treatment: 102-131.

It is widely assumed that a strong sense of ethnic identity is associated with greater adjustment and well-being of American Indian/Alaska Native adolescents. Available evidence supports this proposition, but there are complexities related to ethnic identity development that support a call for further research in this areas. This book chapter addresses those complexities and provides a review of the extant literature within this context. The authors begin by delineating the scope of this chapter, identifying limitations and issues related to the study of development in AI/AN youth. Conceptual models of ethnic identity are then reviewed, followed by an articulation of unique dimensions of AI/AN identity and consideration of historical impacts on ethnic identity formation. The limited research on adolescent AI/AN ethnic identity is then reviewed, followed by discussion of several significant questions for future research. Given this critical review of theory and research, implications for applying this knowledge toward enhancing ethnic identity among AI/AN adolescents are suggested.

Markstrom, C. A. and K. L. Moilanen (2016). School, Community, and Cultural Connectedness as Predictors of Adjustment Among Rural American Indian/Alaska Native (AI/AN) Adolescents. New York, Springer.

Characteristics of rural American Indian/Alaska Natives (AI/AN) are highlighted with particular attention to reservations which are located predominantly in rural areas. The historical trauma model is provided as a framework for understanding the causes behind high levels of some adjustment problems of AI/AN adolescents today. Of primary interest in this chapter is examination of theory and research on potential protective roles of school, community, and cultural forms of social connectedness relative to adjustment outcomes of rural AI/AN youth. Social connections are implicit components of resilience models and resonate with several theoretical frameworks and views on AI/AN well-being. The chapter concludes with summarizing comments including recommendations for future research on the topic.

Moran, J. R. (1998). Measuring Ethnic Identity among American Indian Adolescents: A Factor Analytic Study, Web site: <http://www.fwm.hiedu/>: 7.

This article describes the development of a measure of ethnic identity among American Indian adolescents. Data were collected in nine high schools in four American Indian communities (N=1,592). The self-report survey included eight ethnic identity questions, seven items about social competencies, eight items on personal mastery and locus of control, six items concerning self-esteem, and six items about perceived social support. Factor analysis identified two major factors resulting in an eight-item Indian scale and a six-item White scale. Analysis found that respondents who identified with both White and Indian cultures tended to have the highest scores on the psychological measures of well-being. Results suggest that the use of this bicultural scale by mental health providers might allow examination of the connections between patterns of ethnic identity and emotional/behavioral problems.

Oetting, E. R. and F. Beauvais (1991). "Orthogonal cultural identification theory: The cultural identification of minority adolescents." International journal of the addictions **25**(sup5): 655-685.

A theory of cultural identification is presented indicating that identification with different cultures is orthogonal. Instead of cultures being placed at opposite ends of a continuum, cultural identification dimensions are independent of each other, and increasing identification with one culture does not require decreasing identification with another. Studies of Native-American and Mexican-American youth show that: (1) identification with Anglo (White American) culture is related to having Anglo friends and to family acceptance of an Anglo marriage, (2) identification with either the minority or the majority culture is a source of personal and social strength, and (3) this greater strength, however, does not translate automatically into less drug use, because drug use is related to how much the culture that the person identifies with approves or disapproves of drugs.

Oetting, E. R., et al. (1998). "Factor structure and invariance of the orthogonal cultural identification scale among American Indian and Mexican American youth." Hispanic Journal of Behavioral Sciences **20**(2): 131-154.

Some theories and measures of cultural identification are based on a unidimensional continuum, requiring that, as identification with one culture increases, identification with another decreases. Others, such as multicultural theories, allow high identification with different cultures but rarely incorporate low identification. Orthogonal cultural identification theory specifies that identification with one culture can be independent of identification with another. Short scales have been developed to assess orthogonal cultural identification, applicable across a variety of cultures. Comparisons of measurement models indicated that, for both Mexican American and American Indian adolescents, measures of minority and White American cultural identification are, as predicted, independent and that cultural identification is strongly rooted in the family. Although minor ethnicity differences occurred in a few higher order paths, multi-group tests indicated essential invariance of factor loadings and higher order structure across gender, grade level, and ethnic minority group.

Shaw, J. L. (2013). *Navigating at a Crossroads: The Role of Subsistence Culture in the Subjective Wellbeing of Denaina Athabascan Youths in Alaska*. Case Western Reserve University.

Assimilation policies and practices of past centuries systematically distanced Alaska Native peoples from traditional activities that sustained them for centuries. In the late 20th century, however, a renaissance of indigenous cultures emerged across the Americas that turned attention to the role of cultural activities in modern societies. At the same time, critical youth studies increasingly considered children as active agents in social life. Such research is particularly relevant and timely in contexts of rapid social change such as rural Alaska, where global influences increasingly permeate local life-ways and indigenous youths are charting new courses to adulthood. This ethnographic, case study was conducted with 19 Denaina youths in Nondalton, Alaska to examine the role of subsistence culture in their subjective wellbeing and future aspirations. Mixed-methods were used, including surveys, interviews and participant-observation over the course of one year. The Developmental Assets Framework and local knowledge were used to interview youths about life experiences in six life domains, including: family, friends, school, self, community and culture. Surveys queried youths; subjective wellbeing and aspirations, daily routines, and participation in various cultural activities. Participant-observation was conducted in fish camps, family homes, school, community events, and on the land. Study findings suggest that these youths generally experience high levels of life satisfaction, identify strongly with subsistence culture, and desire to practice these traditions in the future. However, individual wellbeing is more variable and patterns of dissatisfaction related to discontinuities in the educational system, peer and elder relationships, and community cohesion

are evident. Youths are increasingly faced with historically unprecedented choices and opportunities that conflict with subsistence activities. These factors converge to distance youths from their cultural heritage and diminish their wellbeing and expectations for the future, despite their desires to engage more with these practices. This study suggests that cultural activity is a protective factor for positive youth development and wellbeing. Such activity, in principal and in practice, fosters coherence, continuity and connectivity to increase youths; resilience and capacity to navigate the challenges of coming of age at a crossroads of social and personal change.

## Cultural Wellbeing

Centers for Disease Control and Prevention (CDCP). (2016). "Health-Related Quality of Life (HRQOL): Well-Being Concepts." Retrieved August 21, 2016, 2016, from <http://www.cdc.gov/hrqol/wellbeing.htm#three>.

This article discusses concepts of well-being and how it relates to health promotion and disease prevention, including its impacts on quality of life.

Hodge, F. S. and K. Nandy (2011). "Predictors of wellness and American Indians." Journal of health care for the poor and underserved **22**(3): 791.

Wellness is an important American Indian (AI) concept, understood as being in balance with one's body, mind, and environment. Wellness predictors are reported in this paper within the context of health. A cross-sectional randomized household survey of 457 AI adults at 13 rural health care sites in California was conducted. Measures included wellness perceptions, barriers, health status/health conditions, spirituality, cultural connectivity, high-risk behaviors and abuse history. Statistical analysis obtained the best predictive model for wellness. Predictors of wellness were general health status perception, participation in AI cultural practices and suicide ideation. Significant differences in wellness status were observed depending on experience of adverse events in childhood and adulthood (neglect, physical abuse, and sexual abuse). Cultural connectivity (speaking tribal language, participating in AI practices, and feeling connected to community) was also associated with perceptions of wellness. Recommendations are for culturally-appropriate education and interventions emphasizing community and cultural connectivity for improving wellness status.

Pu, J., et al. (2013). "Protective factors in American Indian communities and adolescent violence." Matern Child Health J **17**(7): 1199-1207.

With their distinct cultural heritage and rural boundaries, American Indian reservation communities offer a unique opportunity to explore protective factors that help buffer adolescents from potential risk behaviors such as violence. Prior published research on Indian communities has not explored three potential protective factors for violence-parental monitoring of adolescents and friends, adolescents' self-efficacy to avoid fighting, and adolescents' interest in learning more about their traditional culture. This paper explores the relationship between these factors and reduced risk of reported violence. In 1998, 630 American Indian students in grades 6-12 were surveyed in five Midwestern, rural Indian reservation schools. Path analysis was used to identify the direct and indirect association of the three potential protective factors with reduced violence behavior. There were significant gender differences both in perceived parental monitoring and in adolescents' self-efficacy. For female adolescents, parental monitoring had the strongest inverse relationship with female adolescents' involvement in violence. Female adolescents' self-efficacy and their interest in learning more about their culture were also inversely associated with violence and therefore potentially important protectors. Male adolescents who reported more interest in learning the tribe's culture had better self-efficacy to avoid violence. However, self-efficacy did not successfully predict their reported involvement in peer violence. These findings support exploring gender differences, parental monitoring, and self-efficacy training as well as cultural elements in

future violence intervention studies. Further investigation is needed to identify protective factors for risk behaviors among male adolescents and test the generalizability to non-reservation based adolescents.

Whitbeck, L. B., et al. (2001). "Traditional culture and academic success among American Indian children in the upper Midwest." Journal of American Indian Education **40**(2): 48-60.

This research examines factors affecting school success for a sample of 196 fifth-eighth grade American Indian children from three reservations in the upper Midwest. The regression model included age, gender, family structure, parent occupation and income, maternal warmth, extracurricular activities, enculturation, and self-esteem. The results indicate that traditional culture positively affects the academic performance of fifth-eighth grade children. The bivariate correlation between enculturation and self-esteem was nonsignificant and there was no significant interaction between enculturation and self-esteem indicating that enculturation was directly associated with school success. The findings are discussed in terms of resiliency effects of enculturation for American Indian children.

UNESCO (2002). Universal Declaration on Cultural Diversity: World Summit on Sustainable Development, UNESCO. Retrieved from: <http://unesdoc.unesco.org/images/0012/001271/127162e.pdf>.

This document attempts to define cultural diversity and provide suggesting for implementing 12 principles adopted by the UNESCO general conference in 2001. A lot of discussion among world representatives occurred to develop more universal definitions on what culture and cultural diversity entails.

## Resilience

Allen, J., et al. (2012). "Umyuancaryaraq "Reflecting": multidimensional assessment of reflective processes on the consequences of alcohol use among rural Yup'ik Alaska Native youth." Am J Drug Alcohol Abuse **38**(5): 468-475.

Concerns in some settings regarding the accuracy and ethics of employing direct questions about alcohol use suggest need for alternative assessment approaches with youth. Umyuancaryaraq is a Yup'ik Alaska Native word meaning "Reflecting." The Reflective Processes Scale was developed as a youth measure tapping awareness and thinking over potential negative consequences of alcohol misuse as a protective factor that includes cultural elements often shared by many other Alaska Native and American Indian cultures. This study assessed multidimensional structure, item functioning, and validity. Responses from 284 rural Alaska Native youth allowed bifactor analysis to assess structure, estimates of location and discrimination parameters, and convergent and discriminant validity. A bifactor model of the scale items with three content factors provided excellent fit to observed data. Item response theory analysis suggested a binary response format as optimal. Evidence of convergent and discriminant validity was established. The measure provides an assessment of reflective processes about alcohol that Alaska Native youth engage in when thinking about reasons not to drink. The concept of reflective processes has potential to extend understandings of cultural variation in mindfulness, alcohol expectancies research, and culturally mediated protective factors in Alaska Native and American Indian youth.

Connor, K. M. and J. R. Davidson (2003). "Development of a new resilience scale: The Connor-Davidson resilience scale (CD-RISC)." Depression and anxiety **18**(2): 76-82.

Resilience may be viewed as a measure of stress coping ability and, as such, could be an important target of treatment in anxiety, depression, and stress reactions. We describe a new rating scale to assess resilience. The Connor-Davidson Resilience scale (CD-RISC) comprises of

25 items, each rated on a 5-point scale (0-4), with higher scores reflecting greater resilience. The scale was administered to subjects in the following groups: community sample, primary care outpatients, general psychiatric outpatients, clinical trial of generalized anxiety disorder, and two clinical trials of PTSD. The reliability, validity, and factor analytic structure of the scale were evaluated, and reference scores for study samples were calculated. Sensitivity to treatment effects was examined in subjects from the PTSD clinical trials. The scale demonstrated good psychometric properties and factor analysis yielded five factors. A repeated measures ANOVA showed that an increase in CD-RISC score was associated with greater improvement during treatment. Improvement in CD-RISC score was noted in proportion to overall clinical global improvement, with greatest increase noted in subjects with the highest global improvement and deterioration in CD-RISC score in those with minimal or no global improvement. The CD-RISC has sound psychometric properties and distinguishes between those with greater and lesser resilience. The scale demonstrates that resilience is modifiable and can improve with treatment, with greater improvement corresponding to higher levels of global improvement.

Goins, R. T., Gregg, J. J., & Fiske, A. (2012). Psychometric properties of the Connor-Davidson resilience scale with older American Indians: the native elder care study. *Research on Aging*, Doi 0164027511431989.

Resilience is a term that refers to a person's ability to successfully adapt to adversity. Resilience research has been relatively limited with older adults, particularly with older American Indians. In addition, none of the resilience measures have been validated in older American Indians. This study's objective was to assess the psychometric properties of the full 25-item and abbreviated 10-item versions of Connor-Davidson Resilience Scale (CD-RISC) with a sample of older American Indians. Both CD-RISC versions performed similarly in the study sample compared with what has been reported in other populations. The full version demonstrated adequate internal consistency and convergent and divergent validity, but a meaningful factor structure was not confirmed. The abbreviated version showed good internal consistency and convergent and divergent validity and appeared to have a stable one-factor solution. These findings lend greater support to the use of the abbreviated version than the full version of the CD-RISC with older American Indians.

LaFromboise, T. D., et al. (2006). "Family, community, and school influences on resilience among American Indian adolescents in the upper Midwest." *Journal of Community Psychology* 34(2): 193-209.

This study examines resilience among a sample of American Indian adolescents living on or near reservations in the upper Midwest. Data are from a baseline survey of 212 youth (115 boys and 97 girls) who were enrolled in the fifth through eighth grades. Based upon the definition of resilience, latent class analyses were conducted to identify youth who displayed prosocial outcomes (60.5%) as opposed to problem behavior outcomes. A measure of family adversity was also developed that indicated only 38.4% of the youth lived in low-adversity households. Defining resilience in the context of positive outcomes in the face of adversity, logistic regression was used to examine the predictors of prosocial outcomes among youth who lived in moderate- to high-adversity households. The analyses identified key risk and protective factors. A primary risk factor appeared to be perceived discrimination. Protective factors were from multiple contexts: family, community, and culture. Having a warm and supportive mother, perceiving community support, and exhibiting higher levels of enculturation were each associated with increased likelihood of prosocial outcomes.

Long, C. R. and K. Nelson (1999). "Honoring Diversity: The Reliability, Validity, and Utility of a Scale to Measure Native American Resiliency." *Journal of Human Behavior in the Social Environment* 2(1-2): 91-107.

This article discusses the Ethnic, Culture, Religion/Spirituality scale designed to measure levels of identification & involvement with Native American culture based on a relational, rather than a linear, worldview & sources of strength & resiliency, rather than problems or risk factors.

Secondary analysis of interview data from 147 Native Americans & nonnatives in IA & OR reveal that Cronbach's Alpha exceeded .70, & factor analysis supported the internal consistency of the instrument. Convergent & discriminant validity & differences in the utility of the instrument for natives & nonnatives are explored.

Kelley, A. and C. Small (2016). "Establishing the reliability and validity of the sources of strength in one American Indian community." Am Indian Alaska Native Mental Health Res **23**(2): 84-92.

Strength-based approaches that explore resilience and health among Native communities are needed. This report highlights the results from a sources of strength inventory reported over a 2-year period by participants (N = 48) from a Montana tribe who attended cultural camps. The authors found the sources of strength scale to be a reliable and valid measure for the population (N = 11 items, alpha = .945). The community plans to use the results of this study to inform and promote strength-based measures grounded in the resilience of youth, families, and culture.

**Table 1. Cultural Wellbeing Measures with Indicator Types**

	Blood Quantum	Community Connection	Cultural identity	Cultural knowledge	Emotional wellbeing	Environment/land/natural heritage	Family/genealogy/ancestry	Intellect/educational achievement	Language	Physical wellbeing	Resilience/vitality	Social wellbeing	Spiritual wellbeing
<b>ACCULTURATION SCALES</b>													
Acculturation Scale for American Indians/ AKA Life Perspectives Scale	-	Chooses to live in community	-	Understanding customs	Emotionally connected to tribal community	-	-	-	Understanding language	-	-	Acts in appropriate ways, participates in social activities, Socializes in community	Embraces traditional tribal spirituality
Living in Two Worlds Survey	-	Community membership	-	Cultural knowledge	-	-	-	-	-	-	-	Friendship, Support, Communication	-
Native American Acculturation Scale	-	Friendships	Identity	-	Attitudes	Geographic background	Generational background	-	Language	-	-	Friendships attitudes	-
Rosebud Personal Opinions Survey	Blood quantum	Community of residence	Identification with traditional culture	Value orientation	-	-	Ancestry	Occupational status, Formal educational attainment	Rosebud language use	-	-	Social behavior and customs, Social interaction network	Religious affiliation and process
<b>ENCULTURATION SCALES</b>													
American Indian Enculturation Scale	-	Socialize with Indians or have Indian friends	Choose Indian activity before others, Eat or cook Indian food	Seek help from elders, Write Indian stories, Do Indian art, Know or participate in tribal politics, Know or share Indian history	-	Work in Indian communities/ populations	-	-	Use or know the Indian language	-	-	Attend powwows, Sing Indian songs, attend Indian dances	Attendance at Indian church, attendance at Indian ceremony, Use Indian medicine, participate in Indian prayer
The Yup'ik Wellness Survey	-	Communal mastery	Cultural identity	-	Perceived stress, Personal mastery, Coping, Happiness and general health	-	-	-	-	-	-	Social support	-
Zimmerman Enculturation Scale	-	# NA friends	Cultural affinity, NA identity	Pride and interest in NA culture	-	-	Participation in NA family activities, Mothers/fathers NA identity	-	-	-	-	Self-esteem	-
<b>CONNECTEDNESS SCALES</b>													
Awareness of Connectedness Scale	-	Interrelated with community	-	-	-	Interrelated with environment	Interrelated with family	-	-	-	-	-	-
Multicultural Mastery Scale	-	Communal mastery	-	-	Self mastery	-	Family mastery	-	-	-	-	Friends mastery	-
Cultural Connectedness Scale	-	-	Identity	Traditions	-	-	-	-	Traditions/ language	-	-	-	Spirituality
Multidimensional Model of Maori Identity and Cultural Engagement	-	Group membership evaluation, Authenticity of beliefs (about feeling like they belong)	Cultural efficacy & active identity engagement	Sociopolitical consciousness	-	-	-	-	-	-	-	Inter-dependent self concept	Spirituality
<b>CULTURAL IDENTITY SCALES</b>													
Orthogonal Cultural Identification Scale	-	-	Personal success	Personal cultural traditions	-	-	Family ways of life, Family success, Family cultural traditions,	-	-	-	-	-	-
Alaska Native Cultural Identification Scale	-	-	Alaska Native cultural identification, White cultural identification	-	-	-	-	-	-	-	-	-	-
Pacific Identity and Wellbeing Scale Revised	-	Group membership evaluation, Pacific connected-ness & belonging,	Pacific identity/ wellbeing, Cultural efficacy	-	-	-	Perceived familial wellbeing	-	-	-	-	Perceived societal wellbeing	Religious centrality and embeddedness
American Indian Adolescent Identity	Blood quantum	-	Clan or tribe, Self-perception	History, culture, worldviews	-	Connection (land and place)	Connection (kinship, clan or tribe, ancestry)	-	Language	-	-	-	Spirituality
Bicultural Ethnic Identity Scale	-	-	Ethnic identity	-	Personal mastery	-	-	-	-	-	-	Social competency	-
Cultural Values Survey	-	Sharing and caring	-	Practice of Native traditions, Respect for knowledge & wisdom from life experiences	Love for children, Humor, honesty, fairness	Respect for land & nature	Care & provision of family, Family relations and unity, Honoring ancestors	-	-	-	-	Respect for elders & others	Spirituality
<b>RESILIENCE SCALES</b>													
Connor Davidson Resilience Scale	-	-	-	-	Personal competence	-	-	-	-	-	Strengthening effects of stress, Acceptance of change/ relationships	-	Spiritual influence
Ethnic, Culture, Religion/Spirituality Scale	-	-	-	Culture	-	-	-	-	-	-	Sources of strength	-	Spirituality
Sources of Strength	-	Social support	-	-	Access to mental health services	-	-	-	-	Healthy involvement in activities, Access to physical health services	Leadership	Social support	Personal beliefs
Reflective Processes Scale	-	-	-	-	-	-	-	-	-	-	Negative consequences of alcohol use	-	-