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EVALUATION OF AN ENTREPRENEURSHIP EDUCATION INTERVENTION FOR AMERICAN INDIAN ADOLESCENTS: TRIAL DESIGN AND BASELINE SAMPLE CHARACTERISTICS

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Abstract: Entrepreneurship education is a strength-based approach and holds promise for promoting health equity for American Indian youth. Arrowhead Business Group (ABG) was developed by a tribal-academic research partnership and is being rigorously evaluated for impacts on psychosocial, behavioral, educational, and economic outcomes. This article describes: 1) the trial design and conceptual model under-girding the ABG program; 2) the sociodemographic, sociocultural, and family/household characteristics of participants at baseline; and 3) the baseline differences in key outcome indicators between study groups. Results demonstrate participants have baseline characteristics appropriate for study aims and are compared and contrasted with other youth from the participating tribal community and state in which the tribe resides. Findings inform future analyses to explore how baseline characteristics are associated with primary and secondary outcomes of the evaluation.

INTRODUCTION

Entrepreneurship education is a strength-based program model shown to alleviate health disparities driven by poverty in under-resourced international contexts (Jennings, 2014). The impact of such approaches among under-resourced populations in the United States has yet to be evaluated, including among American Indian (AI) youth. Many AI communities face large health, education, and economic inequities compared to other racial or ethnic groups. These inequities stem from colonialism and historical trauma, contemporary oppression, underfunding of health services that fall within the trust responsibility of the federal government to AIs/Alaska Natives (AN), and educational systems with a legacy of collective memories of trauma and cultural genocide (Braveheart & DeBruyn, 1998; Burnette & Figley, 2017; Sarche & Spicer, 2008; Warne & Frizzell, 2014). Entrepreneurship education represents a strength-based model that can begin to

remedy a negative history of education by creating one that is empowering the community. In addition, this model underscores the importance of tribal self-determination over cultural, social, and economic expansion of their own communities (United Nations General Assembly, 2007).

Existing research conducted in the United States hypothesizes that entrepreneurship education provides opportunities to build entrepreneurial knowledge, fosters connection to positive peers and caring adults, promotes adolescent skill-building, and may lead to decreases in substance use, self-injury, depression, and violence (Karcher, 2002, 2005; Karcher, Davis, & Powell, 2002; Karcher & Finn, 2005; Karcher & Lee, 2002; Karcher & Lindwall, 2003, Tingey et al., 2016a). Examples of U.S. entrepreneurship education, some of which have been developed by AI or First Nations communities, include Oregon Association of Minority Entrepreneurs Youth Entrepreneurship Program (Oregon Association of Minority Entrepreneurs, n.d.), First Nations Development Institute School Based Financial Education Program (First Nations Development Institute, 2019), Youth Entrepreneurs (Youth Entrepreneurs, 2018), The Diamond Challenge for Youth Entrepreneurs (Youth Entrepreneurs, 2018), Making Waves (Four Bands Community Fund, 2018), and Network for Teaching Entrepreneurship (Network for Teaching Entrepreneurship, 2018). Despite known disparities in substance use, self-injury, depression, and violence among reservation-based AI youth, rigorous longitudinal evaluations of programs rooted in a positive youth development framework, such as entrepreneurship education, with AI communities are rare (Substance Abuse and Mental Health Services Administration, 2015; Stiffman et al., 2007; Whitlock, Wyman, & Moore, 2014).

The White Mountain Apache (Apache) Tribe's tribal-academic partnership with Johns Hopkins University has developed a new culturally-driven strength-based entrepreneurship education model, called Arrowhead Business Group (ABG), described in detail elsewhere (Tingey et al., 2016b). Briefly, ABG is a highly experiential applied curriculum, comprised of 16 lessons taught by two adult Apache facilitators to mixed-gender groups of youth. The first 10 lessons are taught during a summer residential camp. The last six lessons are taught through workshops during the academic year. Approximately 60 hours of education are delivered via discussion, games, skill-building activities, and multimedia over an 8-month period. The curriculum centers on life skills including self-efficacy (i.e., problem solving, communication, and goal setting), cultural and community connectedness, entrepreneurship, and small business or social enterprise development. Several lessons incorporate content taught by Apache entrepreneurs, community leaders, and

Apache Elders, who speak about Apache culture and positive Apache identity. At the last lesson, youth present their small business plans and, based on merit, are awarded seed funding for startup.

Additional outside mentoring and business startup advice is provided by community volunteers and ABG staff for youth who launch their own businesses at the culmination of ABG programming. The cultivation of positive relationships between these youth and adults in the community may build and sustain feelings of emotional safety, which could buffer against suicidal thoughts and feelings as has been demonstrated through cross-sectional survey data collected with AI youth in New Mexico and the Northern Plains (Fitzgerald et al., 2017; Kenyon & Carter, 2011). In addition, intergenerational relationships and holding a purpose and role within the tribe underscores collective Indigenous values centered on the importance of community (Cajete, 2015).

Additionally, a complementary business Incubator and Arrowhead Café/Marketplace housed in adjoining spaces have been launched by Johns Hopkins and Apache partners that provide a workspace and meeting ground for product creation and idea generation; in-person and virtual retail opportunities; and apprenticeships in the Café and Marketplace in customer service, hospitality, and culinary arts. Some youth choose to stay after program graduation and may benefit from developing further entrepreneurship and job skills, while directly contributing to economic development in the Apache community (Graig, Owen, & Ritter, 2012; Lee, Chang, & Lim, 2005; Youth Entrepreneurship Strategy Group, 2008). Increasing participating youths' connection and commitment to their community and vision for their future may also deter substance use, suicide, and other high-risk behaviors (Wray-Lake et al., 2012; Donovan et al., 2015).

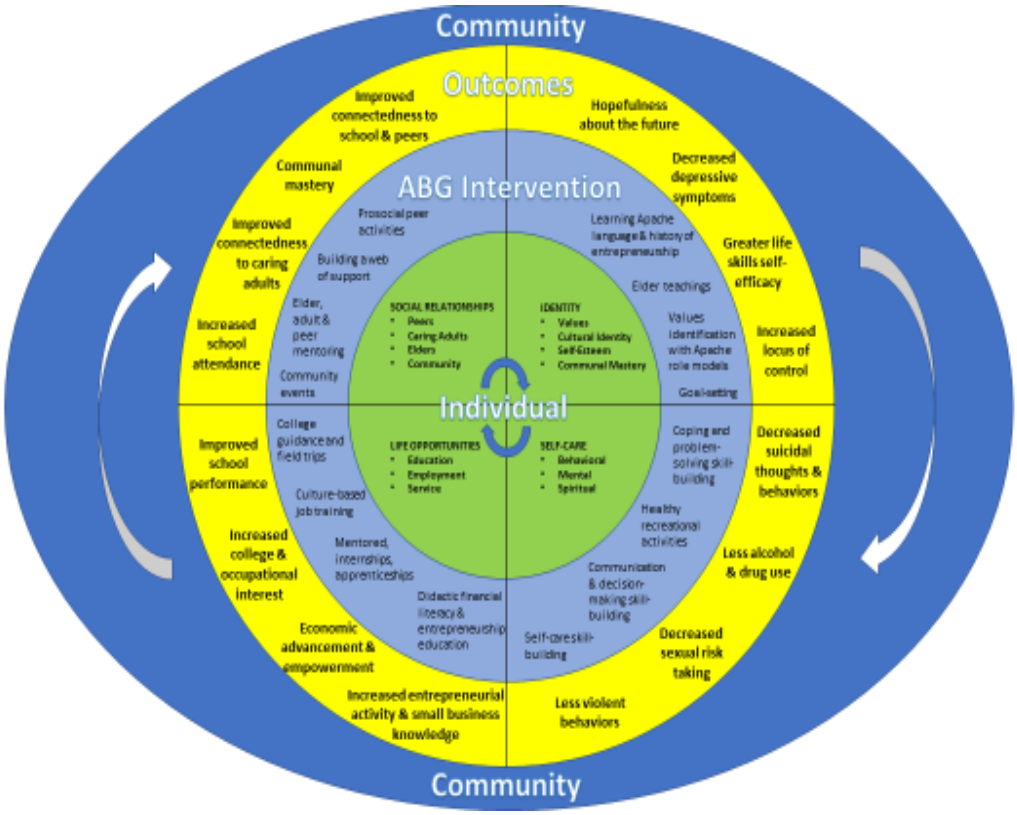
This research to rigorously evaluate the ABG program with longitudinal follow-up seeks to lend momentum to shift the AI behavioral and mental health prevention research paradigm from a focus on risk reduction to protective factor promotion. Other research has indicated that protective versus risk-reduction approaches may be more effective in preventing behavioral and mental health risks among AI youth (see Borowsky, Resnick, Ireland, & Blum, 1999). Our intervention design and outcome evaluation is informed by qualitative and quantitative data gathered with Apache adolescents in previous studies conducted over nearly 20 years through our tribal-academic research partnership. Through this research we learned that 1) low educational achievement and school dropout, 2) hopelessness about the future, and 3) negative peer influences and activities are all significant risk factors for Apache youth substance use, suicide, and other high risk behaviors (Barlow et al., 2012; Cwik et al., 2015, 2017, 2018; Tingey et al., 2012, 2014, 2016a, 2017b).

These findings are consistent with Jessor's (1991) "Problem-Behavior Theory," a long-standing social-psychological framework that explains the interactional person-environmental determinants affecting adolescent health, with a focus on alcohol and drug use and other problem behaviors (see Jessor, 2017). We used our community-engaged process which included: a) formation and guidance on program design from a Community Advisory Board (CAB), b) input from the Apache Elders Council, and c) intensive review and editing by Apache research staff and faculty to adapt Jessor's three major systems of explanatory variables. These systems are: 1) the perceived-environment system, 2) the personality system, and 3) the behavior system to design a conceptual framework for our ABG intervention.

First, our community-engaged process directed a departure from Jessor's model to focus on protective (vs. risk) factors that have potential to buffer Apache youth from school drop-out, unemployment, substance use, violence, and suicide. These protective factors are empirically supported and include: a) connection to Apache history and values through time spent with Apache Elders; b) teaching of essential life skills including decision-making, problem-solving, goal-setting, and self-care; c) fostering positive connections with peers and caring adults through healthy recreational and community-based activities; and d) hands-on learning opportunities including entrepreneurship education and business development, job training, mentored apprenticeships, and college guidance (Borowsky et al., 1999; Cwik et al., 2017, 2018; Kenyon & Carter, 2011; Stiffman et al., 2007; Tingey et al., 2014, 2016a, 2016b, 2017b).

Input from core Apache staff and faculty who were guided by the local CAB and Elders' Council led to further modification of Jessor's model to reflect the intra-personal domains that could be impacted within participating youth: cultural identity, self-care, social relationships, and opportunities. A final departure from Jessor's model was to replace the original linear pathway illustration with a circular, dynamic flow model showing constant reciprocal exchanges between an individual and ABG's targeted growth constructs (cultural identity, self-care, social relationships, and opportunities) and the way ABG seeks to engage community in a constant, evolving cycle to shape lifelong behavioral repertoires (see Figure 1). The final ABG theoretical model is a deep structure cultural adaptation (Okamoto, Kuli, Marsiglia, Holleran-Steiker, & Dustman, 2014), if not counter reaction, to Jessor's original model that is ingrained with Apache knowledge and aspirations for ABG's impact on youth development within a nurturing community context.

Figure 1. Conceptual Model



We are currently evaluating the impact of ABG on psychosocial, behavioral, educational, and economic outcomes with a sample of (N = 393) reservation-based Apache adolescents through a 2:1 randomized controlled trial with 24-months post-intervention follow-up. This manuscript describes: 1) the trial design, 2) sociodemographic, sociocultural, and family/household characteristics of participants at baseline, and 3) baseline differences in key outcome indicators between study groups. To our knowledge, this trial is one of the most rigorous evaluations of an entrepreneurship education program conducted with any racial/ethnic group of U.S. adolescents.

METHODS

Sample & Study Procedures

Self-identified AI youth ages 13-16 years living on the Fort Apache Indian Reservation and who were enrolled in a partnering middle or high school were eligible to participate in the trial to evaluate the ABG intervention. Participants were required to be enrolled in school because

primary outcomes of interest in this trial pertain to academic performance. Participants were recruited annually in three cohorts at public events and at participating schools. Written permission was obtained from parents or legal guardians and youth provided assent. The study was approved by the relevant Tribal and University research review boards. This manuscript and all data included from past and current evaluations was approved for publication by the governing bodies of the Apache community. There is no data safety and monitoring board for this study.

Intervention & Data Collection

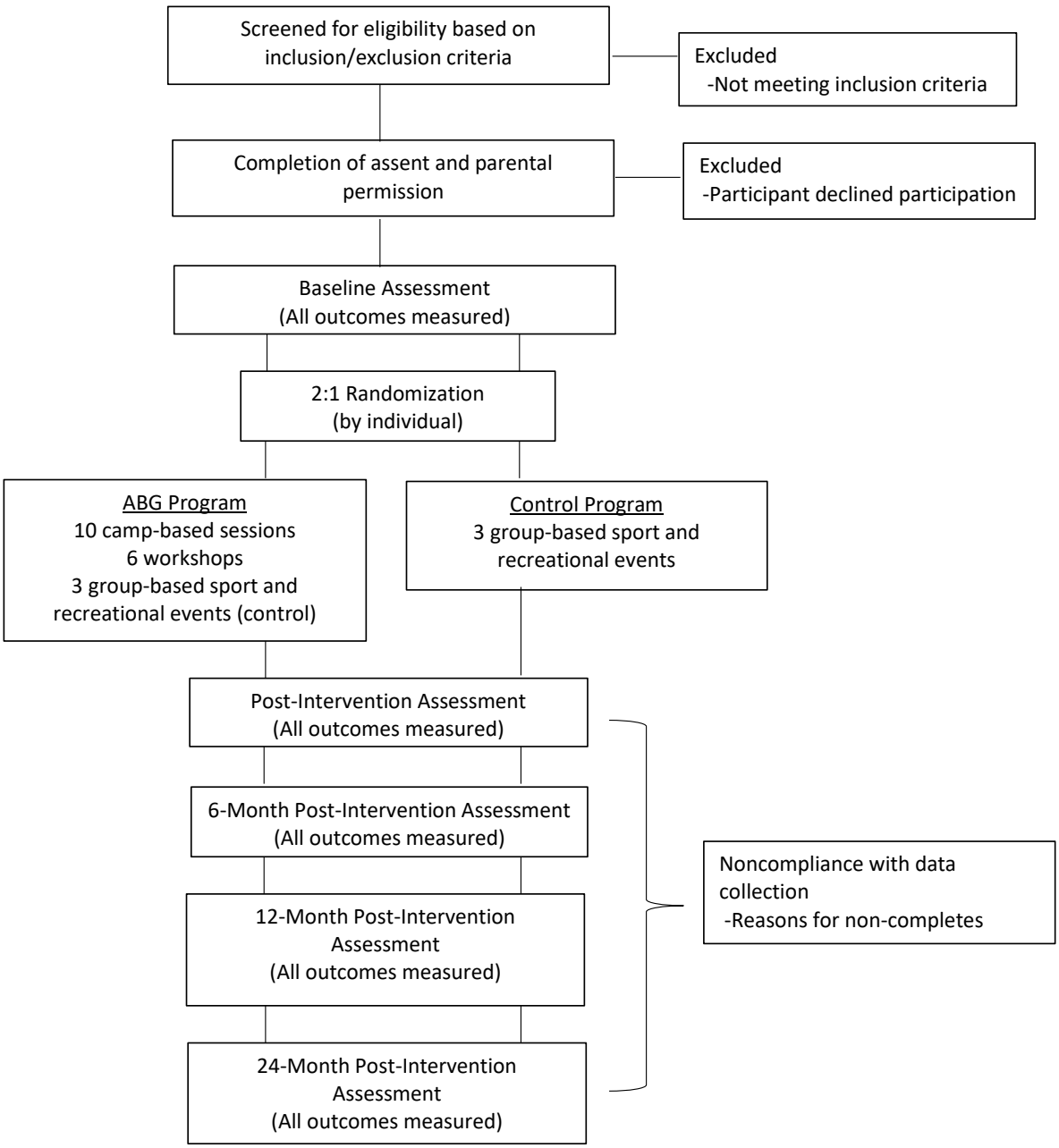
Youth were individually randomized 2:1 to receive either ABG plus a control program, or the control program alone (to determine the additive effects of ABG on primary outcomes). The control condition consisted of recreational activities hosted three times during the academic year. Baseline data were collected through a battery of self-report surveys administered via hard-copy or by Audio Computer Assisted Self-Interview (ACASI) technology on laptop computers and tablets. Assessments covered four domains of adolescent health and well-being hypothesized to be impacted by the ABG intervention: psychosocial, behavioral, educational, and economic. (See Tingey et al. 2016b for a complete description of all assessments utilized for evaluation in this trial). Assessments were selected for their past use in trials of entrepreneurship education interventions and/or for past use with AI adolescent populations. All assessments were pilot tested with Apache youth and revised to reflect local language, clarity, and flow. Participants received a $100 gift card after completing the baseline assessment. Data was collected from May 2014 through June 2016 (see Figure 2).

Retention

To facilitate retention during ABG program implementation, several key decisions were made. First, the decision was made to deliver the first 10 of 16 ABG lessons during a summer residential (overnight) camp, with transportation provided to and from camp. Camp-based program delivery has proven a highly efficacious retention model among youth in the Apache community and has been well-received by the community and participating youth in past programs (Tingey et al., 2015; Tingey et al., 2017a). Second, post-camp workshops were offered at mutually convenient times for youth and alternated between after-school and weekend options. ABG staff provided transportation to and from workshops, and meals and beverages were also provided to improve

intervention engagement and retention. High retention in data collection was achieved by the delivery of assessments either at home or school. Study staff scheduled surveys based on youths' convenience and availability. Incentives given in the form of gift cards in denominations commensurate with the time required to complete the assessment also facilitated retention throughout follow-up data collection.

Figure 2. Trial Design



Quality Assurance

Prior to recruitment, Apache paraprofessional research staff received extensive training (> 80 hours) in trial protocol and policies, protection of human subjects in research, and intervention delivery (for facilitators). ABG facilitators had to demonstrate mastery of the curriculum through written exam. In addition, during the first year of employment, supervisors observed facilitators conducting lessons and rated them on professionalism, rapport, interpersonal skills, and protocol adherence—providing feedback for continuous quality improvement. As previously described, all data continues to be collected through ACASI and is automatically stored in an accompanying database called Warehouse Manager which eliminates the need for separate data entry and coding. ACASI data can be easily downloaded and transferred into various data analysis software (Excel, Stata, SPSS, etc.) for analyses. All study data are stored on a secure, web-based server that allows for uploading and checking of data in real time. Quarterly quality assurance checks (including validation of participant ID, data collection dates, and checking of missing values) was conducted on data collected at all time points. Regular email updates and cross-site phone conferences were used to review and correct identified errors.

Statistical Analyses

Baseline analyses were carried out using Stata version 14. Participants' sociodemographic, sociocultural, and family/household characteristics were examined at baseline to determine whether randomization had achieved comparability between study groups (intervention vs. control). We also examined any significant differences in key outcome variables between participants at baseline for three of the four targeted domains (psychosocial, behavioral health, and economic). Educational outcomes, the fourth domain, are being obtained through retrospective school record review and were not available at the time of writing for inclusion in this analysis. Outcomes analyzed at baseline included: 1) psychosocial (connectedness, depression, locus of control, life skills self-efficacy, hopelessness, and Apache hopefulness), 2) behavioral health (alcohol use, substance use, lifetime sexual experience, condom use at last sex, weapon carrying, fighting, fighting at school, and suicide attempt), and 3) economic (expansion of current economic abilities, economic agency and participation, economic confidence and security, and future planning and aspirations). T-tests were used with continuous variables and Chi-Squared tests with categorical variables.

RESULTS

Sociodemographic Characteristics

A total of 393 participants completed their baseline assessment and were randomized, with 267 in the ABG intervention and 126 in control group (see Table 1). Mean age of participants was 14.3 years old (*SD* = 0.81), 57.8% were female, and 38.4% reported speaking their tribal language at home (Apache or Navajo). Just over 5% of participants randomized to receive the ABG program speak Spanish compared with 1.6% of control participants; this difference was close to being statistically significant ($p = 0.087$). No significant differences in sociodemographic characteristics were found between groups at baseline.

Sociocultural Characteristics

Nearly one-third of all youth said they live a traditional Apache way of life (32.7%), 39.0% live a modern Apache way of life, 5.6% a Hispanic or Mexican American way of life, and 9.5% reported living an 'Other' way of life. At baseline, 66.2% of youth said it is important to follow traditional AI/AN beliefs, while 79.6% stated it is important to follow Christian beliefs (53.2% said yes to both). Almost all participating youth (93.0%) said it is important to have traditional AI/AN values and practices, and 66.8% said it is important to participate in traditional practices and ceremonies. Slightly less than half (49.0%) said it is important to marry someone who is AI/AN. Approaching statistical significance was the difference between study groups in youth who reported living an 'Other' way of life (intervention = 11.3% vs. control = 5.6%; $p = 0.074$). Examples of how youth responded in this 'Other' category include living a Navajo or Christian way of life. No other differences in sociocultural characteristics were approaching statistical significance or significantly different between groups at baseline.

Family/Household Characteristics

The majority of youth in this study are cared for at home by both their mother and father (59.6%), with 19.2% cared for by one parent (mother or father), 10.0% by grandparent(s), and 5.9% by 'Others' (such as by siblings or step parents). More than half have lived in the same home for more than five years (55.1%). Nearly one-quarter (24.7%) have moved in the last 1-5 years, and 20.2% have moved in the last year. On average, youth moved 0.23 times in the last year (*SD*

= 0.94). No significant differences in family/household characteristics were found between groups at baseline.

Table 1
Participant Characteristics at Baseline

	Intervention (*n*=267)	Control (*n*=126)	Total (*N*=393)	*p*-value
Sociodemographic				
Age, Mean (*SD*)	14.32 (0.81)	14.35 (0.91)	14.33 (0.84)	0.7354
Gender, *n* (%)				
Male	114 (42.7%)	52 (41.3%)	166 (42.2%)	
Female	153 (57.3%)	74 (58.7%)	227 (57.8%)	0.7893
Language spoken at home, *n* (%)				
AI Language	99 (37.1%)	52 (41.3%)	151 (38.4%)	0.4253
English	249 (93.3%)	116 (92.1%)	365 (92.9%)	0.6673
Spanish	14 (5.2%)	2 (1.6%)	16 (4.1%)	0.0870
Sociocultural				
Youth lives a…. *n* (%)				
Traditional Apache way of life[1]	89 (33.3%)	39 (31.2%)	128 (32.7%)	0.6747
Modern Apache way of life[1]	105 (39.3%)	48 (38.4%)	153 (39.0%)	0.8610
Hispanic or Mexican American way of life[1]	17 (6.4%)	5 (4.0%)	22 (5.6%)	0.3426
Other[2]	30 (11.3%)	7 (5.6%)	37 (9.5%)	0.0736
Important to follow traditional AI beliefs, *n* (%)[3]	178 (66.7%)	81 (65.3%)	259 (66.2%)	0.7937
Important to follow Christian beliefs, *n* (%)[1]	213 (79.8%)	99 (79.2%)	312 (79.6%)	0.8952
Importance of having traditional AI values & practices, *n* (%)[4]	247 (93.9%)	112 (91.1%)	359 (93.0%)	0.3047
Importance of marrying someone AI, *n* (%)[5]	117 (48.8%)	56 (49.6%)	173 (49.0%)	0.8874
Currently participate in traditional practices and ceremonies, *n* (%)[6]	179 (69.4%)	75 (61.5%)	254 (66.8%)	0.1265
Family/Household				
Who cares for you in your home, *n* (%)[3]				
Both parents	160 (59.9%)	73 (58.9%)	233 (59.6%)	
One parent (mother or father)	50 (18.7%)	25 (20.2%)	75 (19.2%)	
Grandparent(s)	28 (10.5%)	11 (8.9%)	39 (10.0%)	
Aunt/uncle/other relative	11 (4.1%)	10 (8.1%)	21 (5.4%)	
Other	18 (6.7%)	5 (4.0%)	23 (5.9%)	0.4284
Years since last move, *n* (%)[1]				
In last year	54 (20.2%)	25 (20.0%)	79 (20.2%)	
1-5 years ago	71 (26.6%)	26 (20.8%)	97 (24.7%)	
> 5 years ago	142 (53.2%)	74 (59.2%)	216 (55.1%)	0.4241
Number times moved in last year, Mean (*SD*)[2]	0.23 (0.99)	0.23 (0.82)	0.23 (0.94)	0.9498

[1]N=392, Int: 267, Cont: 125; [2]N=391, Int: 266, Cont: 125; [3]N=391, Int: 267, Cont: 124; [4]N=386, Int: 263, Cont: 123; [5]N=353, Int: 240, Cont: 113; [6]N=380, Int: 258, Cont: 122

Trial Outcomes at Baseline

Psychosocial

Average connectedness scores were measured with a Likert Scale from 1-5 where higher scores equal greater connectedness. Scores for the total sample were: friends = 3.66 (*SD* = 0.74); self (e.g., identity, values, worth) = 3.44 (*SD* = 0.68); future self (e.g., goals, aspirations) = 3.89 (*SD* = 0.70); peers (e.g., classmate, teammate) = 3.33 (*SD* = 0.62); school = 3.58 (*SD* = 0.72); and teachers = 3.43 (*SD* = 0.73). An additional measure of connectedness that assessed youth's awareness of how connected they are to their community (range: 0-60; higher score = greater connectedness) had an average score of 32.8 (*SD* = 10.9). Slightly more than one-quarter (26.7%) of the sample screened positive for depression at baseline. Other average scores in the psychosocial domain included locus of control = 16.58 (*SD* = 4.5; range: 0-40; higher score = greater control); life skills self-efficacy = 6.84 (*SD* = 1.66; Likert Scale: 1-10; higher score = greater efficacy); hopelessness = 3.95 (*SD* = 2.83; range: 0-16; higher score = greater hopelessness), and Apache hopefulness = 3.78 (*SD* = 0.55; Likert Scale: 1-5; higher score = greater Apache hopefulness). One between-group difference within the psychosocial domain was detected. Intervention participants had higher average scores than control participants on connectedness to self (3.50 vs. 3.32, p = 0.0165). There were no other significant between-group differences in psychosocial outcomes at baseline.

Behavioral Health

At baseline, the total sample reported having ever used the following substances in their lifetime: alcohol = 29.0%; cigarettes = 33.1%; marijuana = 33.6%; illicit or prescription drugs = 14.5%; and poly-drug use = 37.9%. Regarding sexual behaviors, 18.1% of the entire sample reported having ever had sex at baseline, and 70.1% endorsed use of a condom at last sex. In terms of violent behavior and intentional injury, 19.1% reported carrying a weapon in the last 30 days; 34.6% reported engaging in a fight in the last 12 months; 20.6% reported engaging in a fight on school property in the last 12 months; and 15.5% reported making a suicide attempt in the last 12 months. There were no significant between group differences in any of the behavioral health outcomes at baseline.

Economic

Average scores within the economic domain (Likert Scale: 1-4; higher score = greater agency) for the entire sample at baseline were: expansion of current economic abilities = 2.5 (*SD* = 0.48); economic agency and participation = 2.62 (*SD* = 0.48); economic confidence and security

= 2.48 (*SD* = 0.37); and future planning and aspirations = 3.03 (*SD* = 0.50). There were no significant between group differences in any of the economic outcomes at baseline.

Table 2
Key Trial Outcomes Among Participants at Baseline, by Study Group

	Total (*N* = 393)	**ABG (*n* = 267)**	**Control (*n* = 126)**	***p*-value**
Connectedness				
Connectedness-friends, Mean (*SD*)	3.66 (0.74)	3.70 (0.73)	3.57 (0.77)	0.1039
Connectedness-self, Mean (*SD*)	3.44 (0.68)	3.50 (0.66)	3.32 (0.72)	0.0165
Connectedness-future self, Mean (*SD*)	3.89 (0.70)	3.91 (0.69)	3.83 (0.72)	0.2458
Connectedness-peers, Mean (*SD*)	3.33 (0.62)	3.33 (0.61)	3.32(0.66)	0.9275
Connectedness-school, Mean (*SD*)	3.58 (0.72)	3.58 (0.71)	3.57 (0.73)	0.8452
Connectedness-teachers, Mean (*SD*)	3.43 (0.73)	3.42 (0.76)	3.44 (0.67)	0.8728
Awareness of connectedness, Mean (*SD*)	32.76 (10.88)	33.01 (10.67)	32.22 (11.35)	0.5010
Psychosocial				
Depression, N (%)	105 (26.7%)	67 (25.1%)	38 (30.2%)	0.2896
Locus of control, Mean (*SD*)	16.58 (4.50)	16.82 (4.53)	16.06 (4.41)	0.1199
Life skills self-efficacy, Mean (*SD*)	6.84 (1.66)	6.89 (1.62)	6.74 (1.74)	0.3795
Hopelessness, Mean (*SD*)	3.95 (2.83)	4.00 (2.88)	3.85 (2. 75)	0.6146
Apache Hopefulness, Mean (*SD*)	3.78 (0.55)	3.80 (0.54)	3.73 (0.57)	0.2189
Substance Use & Sexual Behaviors				
Lifetime alcohol use, *N* (%)	114 (29.0%)	75 (28.1%)	39 (31.0%)	0.5595
Lifetime cigarette use, *N* (%)	130 (33.1%)	90 (33.7%)	40 (31.7%)	0.6997
Lifetime marijuana use, *N* (%)	132 (33.6%)	96 (36.0%)	36 (28.6%)	0.1481
Lifetime illicit/prescription use, *N* (%)	57 (14.5%)	38 (14.2%)	19 (15.1%)	0.8239
Lifetime poly-drug use, *N* (%)	149 (37.9%)	107 (40.1%)	42 (33.3%)	0.1986
Lifetime sexual experience, *N* (%)	71 (18.1%)	50 (18.7%)	21 (16.7%)	0.6203
Condom use at last sex, *N* (%)[1]	49 (70.0%)	35 (71.4%)	14 (66.7%)	0.6903
Violence & Intentional Injury				
Carried a weapon-last 30 days, *N* (%)	75 (19.1%)	55 (20.6%)	20 (15.9%)	0.2658
Fight-last 12 months, *N* (%)	136 (34.6%)	98 (36.7%)	38 (30.2%)	0.2030
Fight on school property-last 12 mon, *N* (%)	81 (20.6%)	61 (22.8%)	20 (15.9%)	0.1107
Suicide attempt-last 12 months, *N* (%)	61 (15.5%)	42 (15.7%)	19 (15.1%)	0.8679
Economic				
Expansion economic abilities, Mean (*SD*)[2]	2.50 (0.48)	2.52 (0.46)	2.47 (0.51)	0.2826
Economic agency & participation, Mean (*SD*)[2]	2.62 (0.48)	2.62 (0.49)	2.62 (0.46)	0.9104
Economic confidence & security, Mean (*SD*)[3]	2.48 (0.37)	2.47 (0.38)	2.49 (0.34)	0.7272
Future planning & aspirations, Mean (*SD*)[2]	3.03 (0.50)	3.04 (0.50)	3.03 (0.52)	0.8765
Educational (not available at writing)	---	---	---	---

[1] N=70; Missing 1 value – 71 reported ever having sex.
[2] N=392; Missing 1 value.
[3] N=388; Missing 5 values.

DISCUSSION

Results demonstrate AI/AN adolescents participating in this trial have baseline characteristics appropriate for the aims of the impact evaluation of a youth entrepreneurship education program. There were no statistically significant sociodemographic, sociocultural, or family/household differences between intervention and control groups at baseline. Only one outcome of interest was significantly different at baseline (connectedness to self; psychosocial domain) and will be adjusted in future longitudinal analyses. Overall, the 2:1 randomization scheme appears to have been effective.

Our study sample has some similarities and differences in sociodemographic, sociocultural, and family/household differences from the larger White Mountain Apache community, which are expanded upon here. Roughly half the sample is female, with nearly 40% speaking their tribal language at home (Apache or Navajo). This proportion speaking their tribal language at home is lower than that found in the entire White Mountain Apache community, of whom 52% speak Apache (White Mountain Apache Tribe [WMAT] Regional Partnership Council, 2016). Nearly 60% of youth were living with both parents, while the remainder were living with a single parent or other family member. The proportion of participants living with both parents (60%) was greater than the proportion of children in the entire White Mountain Apache community (25%; WMAT Regional Partnership Council, 2016). The proportion of participating youth with a grandparent as a caregiver (10%) was approximately the same as found for the entire community (9%; WMAT Regional Partnership Council, 2016). Over half (55.1%) had lived in their current home for more than five years. (Note: data on the proportion of youth living in their current home for more than five years was not available for the entire community at the time of writing).

The majority of participants reported living either a traditional or modern Apache way of life (e.g., someone who practices and participates exclusively in traditional Apache activities vs. someone who participates in traditional Apache practices and activities but also has Christian beliefs and engages in Christian activities, such as going to church), and 93% said it is important to have traditional AI values and practices. Future analyses will explore how these sociodemographic, sociocultural, and family/household characteristics were associated at baseline with the primary and secondary outcomes of the evaluation.

Our sample also has important similarities and differences between 9th-grade youth in Arizona who completed the 2015 Youth Risk Behavior Survey (YRBS), which are discussed here. More than one quarter (26.7%) of our sample endorsed depression, compared with 32.1% of

Arizona YRBS participants (YRBS, 2015). Regarding alcohol and substance use, our sample was relatively in line with general Arizona youth (lifetime alcohol 29% vs. 25%; lifetime cigarette use 33% vs. 30.4%; and lifetime marijuana use 34% vs. 33.4%; YRBS, 2015). Just over 18% of our participants had ever had sex in their lifetime compared with 22% of all-Arizona 9th grade youth; whereas 70% of our Apache youth reported using a condom at last sex, compared with just 45% of all-Arizona youth (YRBS, 2015). While those reporting carrying a weapon in the last 30 days were identical to all-Arizona youth (19% vs. 19%), a greater proportion of our sample reported a fight in the past 12 months (35% vs. 26%) and a fight on school property in the last 12 months (12% vs. 10%; YRBS, 2015). Finally, a slightly greater proportion of our sample reported ever making a suicide attempt in their lifetime compared with all-Arizona 9th-grade students (15.5% vs. 12.2%; YRBS, 2015).

One limitation of the study design may be that youth were required to be currently enrolled in school in order to be eligible for the study. The rationale was that ABG focuses on keeping youth in school and promoting aspirations for high school completion and college attendance. However, exclusion of those not currently enrolled in school may miss opportunities to engage youth at potentially higher psychosocial or behavioral risk in positive entrepreneurship education. Also, some of the last six curricular sessions were taught at school to accommodate participants' schedules. This eligibility criterion may limit the generalizability of our findings to the larger Apache community, as higher-risk youth (i.e., those not enrolled in school) may not have been accurately represented in the study sample. However, nationally, the AI/AN high school graduation rate is 69%, far below the national average of 81%, and for AI/AN youth attending Bureau of Indian Education schools, the average graduation rate is 53% (Bureau of Indian Organization, 2018). In the White Mountain Apache community, just 33% of adults over age 25 have a high school diploma or GED (White Mountain Apache Tribe Regional Partnership Council, 2016). Given these marked disparities, and that one goal of the ABG program is to boost high school graduation rates, this inclusion criterion is justified.

Our trial is unique in its utilization of a summer residential camp and follow-on applied workshops as an implementation and retention strategy in a hard-to-reach population. It also demonstrates the feasibility of conducting a large randomized controlled trial in a community-based setting. Reliance on paraprofessionals from the Apache community to serve as facilitators is innovative. They comprise an eager workforce in a community with high unemployment who in partnership with local entrepreneurs and Apache Elders can harness cultural teachings and

practices relevant to entrepreneurship while building a local work force – an implicit goal of an entrepreneurship program (Barlow & Walkup, 2008; Barlow et al., 2013; Miller & Pylypa, 1995; Mullany et al., 2012; O'Keefe, Cwik, Haroz, & Barlow, in press).

CONCLUSION

The ABG program and trial evaluating its efficacy aim to demonstrate a protective factors approach for reducing key behavioral health disparities affecting AI/AN adolescents, including substance use and suicide, by promoting education, entrepreneurship, and employment skills. If proven successful, the White Mountain Apache will have developed a novel, multi-faceted strength-based approach that is practical, feasible, and culturally and contextually appropriate—with potential ripple effects on community development and self-determination for other communities throughout Indian Country. Future research will be warranted to explore how the model can serve other communities seeking strengths-based approaches who have been historically oppressed throughout the United States.

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A FEASIBILITY EVALUATION OF THE URBAN NATIVE YOUTH LEADERS PROGRAM

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Abstract: Urban American Indian and Alaska Native (AI/AN) youth represent a unique and growing population in the United States. Culture and participation in cultural activities is associated with resilience; however, urban AI/AN youth often report limited access to their culture. This paper presents results from a mixed-method feasibility evaluation of the Native Youth Leaders (NYL) program, a culturally-grounded youth program for urban AI youth. The NYL feasibility evaluation sought to answer two questions: (1) is the NYL program feasible and appropriate and (2) what are urban AI youth perspectives on the NYL program? Results indicate the NYL program was feasible and appropriate for urban AI youth. Recommendations may be useful to other tribal organizations as they design and implement culture-based programs for urban AI youth.

INTRODUCTION

More American Indian and Alaska Native (AI/AN) youth live in urban locations today than reservation locations. As a population, 70% of AI/ANs live in urban locations (Norris, Vines, & Hoeffel, 2012), and 58% of Native youth between the ages of 15-19 years live in urban areas (Urban Indian Health Institute [UIHI], 2009). The distinction of urban versus reservation AI/AN youth is important because it often determines the level of access youth have to cultural activities, relatives and extended family members, and ceremonial activities (Brown, Dickerson, & D'Amico, 2016).

Cultural identification and access to cultural activities can be partially explained by the movement of AI/AN groups from ancestral homelands to urban U.S. locations. Prior to colonization, AI/AN groups were thriving, healthy, and connected to their culture with distinct languages, traditions, ceremonies, and geographies. However, beginning in the 19th Century, the U.S. government began massive efforts to eliminate AI/AN peoples and their culture. The Boarding School era and the 1887 Dawes Act forced AI/ANs to assimilate to mainstream culture. Boarding school policies prohibited use of Native languages and forced the removal of children

from their homes (Sandefur, 1989). Many AI/AN children were subject to sexual, physical, emotional, and spiritual abuses at boarding schools. In 1956 the U.S. government developed the Indian Relocation Program, designed to move AI/ANs from reservations to cities (Burt, 1986). Many AI/AN populations were forced to move from their ancestral homelands onto reservations or undesirable locations (Sandefur, 1989). Forced relocation programs have ended, yet many AI/AN families are still forced to leave their homes and relatives in search of improved opportunities for employment, education, housing, and health care. Although some AI/AN families have adjusted to urban life, others have not. Researchers report that urban AI/ANs are twice as likely as the general population to be poor, unemployed, and not have a college degree (Castor et al., 2006). These disparities are compounded by the loss of culture, limited access to traditions and ceremonies, loss of family support, and loss of kinship systems (Johnson & Tomren, 1999). Urban AI/AN youth experience cultural stressors with regard to discrimination and cultural disruption (Hawkins, Cummins, & Marlatt, 2004) with limited access to mental health services and social support systems. The current system of care does not fully support their mental health and service system needs (West, Williams, Suzukovich, Strangeman, & Novins, 2012).

Cultural stressors, unmet mental health needs, and trauma place urban AI/AN youth at greater risk for substance use, poor mental health, suicide, violence, unintentional injuries, and school violence (Witko, 2006). As a group, they also have a higher prevalence of substance use, earlier onset, more severe substance related consequences, and less perceived risk from harm related to substances when compared with non-Native youth (Lawrence, Pamepl, & Mollborn, 2014; Rutman, Park, Castor, Taualii, & Forquera, 2008). More than 30% of urban AI/AN youth live in poverty, and 23% of AI/AN urban you between the ages of 15-19 are not enrolled in school, compared with 15% of white youth (UIHI, 2009) Unintentional injury rates are also higher among urban AI/AN youth, with the majority of deaths related to motor vehicle crashes (UIHI, 2009). Participation in culture-based programming in urban settings may build resiliency in urban AI/AN youth and alleviate disparities.

Culture-Based Programming

An emerging body of literature describes the role of culture and participation in cultural activities as an integral aspect of building resilience and reducing risk factors in AI/AN youth (Yu & Stiffman, 2007; LaFromboise, Hoyt, Oliver, & Whitbeck, 2006). Resilience is defined as a positive adaptation despite adversity (Luthar, 2005). Protective models are often associated with

cultural resiliency programming, where a resiliency factor (culture and cultural connections) moderates or reduces the effects of a risk factor (Kelley, Small, Small, Montileaux, & White, 2018). Previous studies of urban AI youth report that identification with their culture and participation in cultural activities is associated with resilience (LaFromboise et al., 2006). Participation in culture-based programs is thought to build resilience through social, emotional, psychological, and physical strengths (Kaufman et al., 2007; Snowshoe, Crooks, Tremblay, Craig, & Hinson, 2015). Research suggests that community-driven, culturally grounded prevention interventions, derived from the beliefs and values of a given tribe or culture, appear to be more acceptable and potentially more effective for AI/AN youth than evidence based practices (EBPs) developed with non-Native populations (Gone & Calf Looking, 2011). Kulis, Ayers, and Harthun (2017) adapted the Living in 2 Worlds substance use prevention curriculum for urban AI middle school students. This culturally-adapted curriculum was effective in delaying initiation and reducing substance use. Other examples of culture-based prevention programs include the Journeys of the Circle Project (Marlatt et al., 2003), the HAWK2 program (Raghupathy & Forth, 2012), and the Motivational Interviewing and Culture for Urban Native American Youth (Dickerson, Brown, Johnson, Schweigman, & D'Amico, 2016). With the limited number of culture-based programs for urban AI youth, and the emerging body of literature that indicates such programs may be effective, feasibility evaluations are needed to explore culture-based programming for urban AI youth (Donovan et al., 2015).

Feasibility evaluations represent pieces of the research process that are completed before the main study or program begins. Characteristics of feasibility evaluations include assessment of recruitment capability and sample characteristics, testing data collection and outcome measures, documenting resources needed, and preliminary evaluation responses from participants (Arain, Campbell, Cooper, & Lancaster, 2010; Orsmond & Cohn, 2015). Previous studies with AI youth examined feasibility and acceptability by tracking participant recruitment, attendance, and conducting qualitative interviews with facilitators and youth about the implementation process (Goodkind, Lanoue, Lee, Freeland, & Freund, 2012). Other researchers have used feasibility studies to culturally tailor evidence-based interventions for multi-tribal and urban communities (Le & Gobert, 2015; Daley et.al., 2018) or to test interventions designed for other populations with AI youth populations (Bowen, Henderson, Harvill, & Buchwald, 2012). A common theme found in these feasibility studies is that they use a community based participatory research (CBPR) orientation.

The primary aim of this feasibility evaluation was to explore whether the Native Youth Leaders (NYL) program, a culturally-based prevention program for urban AI youth, was feasible and appropriate. Consistent with this aim, we developed two questions:

1. Is the NYL program feasible and appropriate for use with urban AI youth?
2. What are urban AI youth perspectives on the NYL program?

Planning and Conceptualizing Native Youth Leaders for Urban American Indian Youth

A tribal consortium located in Montana facilitated the NYL. The tribal consortium is dedicated to improving health and data access, economic development, and education for tribes and their members through a variety of programs, policy recommendations, and meetings. The NYL program was based on the assumption that urban AI youth are exposed to a variety of cultures in urban settings, and these cultures define and shape their Native identities.

The NYL team includes one director, one cultural specialist, one cultural activity facilitator, and one evaluation scientist. This program was supported by a grant from a public university who received National of Institutes of Health funding to build tribal research capacity in Montana.

Following a CBPR approach, the tribal consortium formed a community planning committee (CPC; Minkler & Wallerstein, 2003) in October 2016. The committee was comprised of representatives selected by the consortium staff based on their involvement with urban AI youth. These individuals represented the hospital and local clinic, a Native youth non-profit, a youth empowerment organization, correction officers, the conservations corps, tribal elders, and school district representatives. The CPC met several times to discuss potential interventions for urban AI youth. The CPC also shared information about the kinds of cultural interventions and experiential activities that have been implemented in the past. Data provided by the CPC was used to inform planning efforts. Planning efforts and meetings continued until September 2017 when the NYL received additional funding to implement cultural activities for urban AI youth.

The NYL consisted of three activities. Activities were developed with input from the CPC, funding agency, urban AI youth, and tribal leaders. Initially the NYL team planned for eight activities, but due to a change in project directorship, difficulty in scheduling equine facilities, and time constraints, only three activities were possible. Concepts used to develop NYL activities were based on the Northern Plains history and culture. Activities incorporated the values of belonging, responsibility, generosity, respect for elders, shared responsibilities, and spirituality. These values were responsive to multiple tribes represented in the urban AI setting and included the following

Northern Plains Indian culture activities: Lodge Ways, horse culture, and traditional arts and crafts. Activities were designed to expose youth to AI values, teachings, arts, and histories while building resiliency and cultural connections.

- Activity 1: Building life skills and working as a team, traditional arts and crafts, and honoring others. Sharing circle. Sharing meal.
- Activity 2: Horsemanship, painting horses using a variety of symbols, designs, and colors that reflect AI culture and ways of life. Sharing circle. Sharing meal.
- Activity 3: Painting of teepees, honoring elders, Lodge Ways, and circle of life. Sharing circle. Sharing meal.

METHODS

Evaluation Design

We used a convergent design to combine qualitative and quantitative data collected during the NYL program (Fetters, Curry, & Creswell, 2013). We compared qualitative themes with quantitative results to document the feasibility of NYL (Fetters et al., 2013; Saint Arnault & Fetters, 2011). Evaluations, surveys, and focus group data allowed us to focus on the feasibility and appropriateness of the NYL, and youth perspectives. The design included the following data sources: Cultural Connectedness Short Scale (n = 9; Snowshoe et al., 2015), focus group responses (n = 10), a completed evaluation form (n = 10), and written post-it-note responses from youth participants.

Theory

The framework underpinning NYL was orthogonal cultural identification theory, which states that culture is orthogonal, and identification with the minority or majority culture can be a source of personal and social strength (Oetting & Beauvais, 1991). This theory supported the creation of NYL based on the concept that AI culture can be protective and build resiliency in AI youth.

Recruitment

To be eligible for the NYL, youth had to self-identify as AI/AN (or mixed race that includes AI/AN), be ages 13-18 years, be in grades 7-12 at the time of recruitment, be able to understand

spoken and written English, have transportation to and from sessions, and be able to provide a regular phone contact number. Urban AI youth were recruited from public middle and high schools from the urban location. The CPC recommended using fliers to recruit students from local schools and assisted with recruitment by telling their colleagues about NYL. Fliers were also posted at CPC partner locations and other locations (local schools and YMCA) frequented by urban AI youth.

The initial recruitment goal was to identify 20 students for the NYL evaluation. Based on previous studies, a 50% attrition rate was expected., and we wanted to have at least 10 students in the core NYL group. The recruitment efforts resulted in 10 urban AI youth. The NYL followed all ethical standards for the population based on federal and tribal consortium requirements for feasibility evaluations. The Rocky Mountain Tribal Institutional Review Board reviewed the NYL feasibility evaluation and determined it was exempt. Consent was obtained from all individual participants. Parental consent was granted prior to participants attending the first cultural activity.

Sample

In this section we summarize NYL data collection instruments: Cultural Connectedness Short Scale (CCSS; Snowshoe et.al, 2015), focus group, NYL evaluation, and written post-it-notes.

Cultural Connectedness

Youth completed the CCSS (Snowshoe et al., 2015), a 11-item instrument that has been used in populations of urban AI youth. Six questions were “yes” or “no” response (e.g., I know my cultural/spirit/Indian name). Five statements assessed student level of agreement about cultural connectedness (e.g., I have a strong sense of belonging to my tribe or nation), using a 5-point Likert-type scale where 1 = Strongly Disagree and 5 = Strongly Agree. The CCSS was administered to participants at the beginning of the first cultural activity.

Focus Group

Youth sat in a circle and participated in a focus group that was facilitated by a trained member of the NYL team. Focus group questions explored youth perceptions of cultural opportunities for AI youth in the urban location. The focus group occurred at the end of the third cultural activity. Discussion questions included:

1. If you could describe Native youth cultural opportunities in this urban community in just a few words, what would you say?

2. What types of issues and topics should NYL address?
3. Are there opportunities for us (the tribal consortium) to partner with other programs and organizations in the urban community? If so, which organizations?

NYL Evaluation

The NYL evaluation form consisted of 12 questions and was designed to assess youth perspectives about the NYL program with a focus on process, outcomes, and future efforts. The first question asked about age. The next two questions were open text response and asked, "How did you hear about the NYL program?" and "What did you want to get out of the NYL program?" The next set of questions asked youth to rate activities using a 5-point Likert type scale where 1 = Terrible and 5 = Very Good. The next question asked youth, "Is there a need for the NYL program in this city?" Response options were Yes, No, or Not Sure. The next questions were open text response and focused on the NYL process: "What went well?", "What did not go so well?", "What difference did the NYL project make?", and "Did you get what you wanted out of the NYL project?" The next two questions asked, "Would you consider doing this again?" and "Would you recommend NYL to your friends?" Response options were Yes, No, or Not Sure. The final question was open response and asked youth, "Can you think of three things big or small that would make NYL better?"

Post-it-Note Activity

Youth received different colored post-it-note stickers and were asked to respond to the following questions: "What text message would you send someone who wants to know more about NYL?" and "What is something that you liked, not sure, and did not like about NYL?" The NYL evaluation and post-it-note activity were completed at the end of the third cultural activity.

Analysis

Quantitative data from the CCSS and evaluation forms were analyzed using Microsoft Excel and SPSS Version 24.0. Qualitative data from open text evaluation responses and focus groups were transcribed by the authors; post-it notes were photographed during the meeting and transcribed by the authors. All qualitative data were analyzed using NVIVO Software version 11.0 (QSR, 2000). Results were validated by the NYL team and youth participants.

FINDINGS

Urban AI youth participating in NYL were from two tribes located in the Rocky Mountain Region. All urban AI youth were male, and average age was 14.3 years (*SD* = 1.80, range 12-18). During the first activity, nine youth attended; at the second activity, 10 youth attended; and at the third activity, 10 youth attended.

Cultural Connectedness

CCSS responses indicate that urban AI youth are moderately connected to their culture. Table 1 summarizes urban AI youth NYL CCSS responses. Nearly all urban AI youth answered "yes", they or someone they are close to use sage, sweat grass, or cedar. More than half of urban AI youth report they have been given an Indian name and have an elder or traditional person that they talk to. Forty-four percent of urban AI youth believe that in certain situations, animals and rocks have a spirit. More than one-third of urban AI youth understand some of their traditional language and use tobacco for guidance. The next five statements were based on a level of agreement where 1 = Disagree and 5 = Agree. Mean scores for these statements indicate that urban AI youth reported "neither," a mean score of "3," for all statements. This score indicates that urban AI youth do not feel strongly about the CCSS statements presented.

Table 1
CCSS Short Scale Responses Urban Youth

CCSS Statements (Yes or No Response)	**Urban (*n*)**
I have been given an Indian name, %	55.5 (5)
I can understand some of my traditional language, %	33.3 (3)
In certain situations, I believe things like animals and rocks have a spirit, %	44.4 (4)
I use tobacco for guidance, %	33.3 (3)
I (or someone I am close with) use sage, sweet grass, or cedar, %	88.8 (8)
I have an Elder or traditional person that I talk to, %	55.5 (5)
CCSS Statements (5-Point Scale, Strongly Disagree to Strongly Agree)	**Urban Mean**
I have spent time trying to find out more about being Native such as my history, traditions, and customs.	3.11 (*SD* = 1.97)
I have a strong sense of belonging to my community or Nation.	3.44 (*SD* = .95)
I feel a strong attachment towards my community or Nation.	3.33 (*SD* = .94)
The eagle feather has a lot of meaning to me.	3.22 (*SD* = 1.23)
I feel that I am in balance physically, emotionally, mentally, and spiritually.	3.55 (*SD* = 1.06)

Evaluation Responses

Ten youth completed the NYL evaluation, although youth did not answer all questions. Most youth heard about the NYL from study staff members or friends. Youth responses varied with regard to what they wanted to get out of NYL. Most wanted to learn life skills, how to be a better person, inspiration, or knowledge about their Native culture. Most youth felt the length of activities was okay (M = 3.55, SD = .88), food was good (M = 4.22, SD = .83), and gifts were good to very good (M = 4.55, SD = .72). Youth ratings of cultural activities varied. Youth rated the first meeting on teamwork as okay to good (M = 3.66, SD = .86). Horsemanship and culture was the focus of the second meeting, and youth rated this as good to very good (M = 4.33, SD = .86). The third activity included teachings on the Lodge Ways and painting teepees, and youth rated this as okay to good (M = 3.88, SD = 1.05). When responding to the question, "Do you think there is a need for NYL in this city?", six youth said yes and three youth were not sure.

We asked youth, "What went well?" Text responses varied. Three youth wrote the horse culture activity; five youth wrote everything; and two wrote the food and gifts. One youth wrote, "Building new relationships with people and animals." The next question we asked was, "What did not go so well?", and five youth wrote the rope game. One youth wrote, "The rope game was hard to understand on how life goes." These data were triangulated with responses from the post-it-note activity where 10 youth wrote they did not like certain aspects of NYL, and the most frequent response was the rope game (n = 6; see Table 2).

We asked youth, "What difference did the NYL program make?" Three youth wrote that getting to know one another was the difference, and others wrote it gave them a positive outlook on life and inspiration. One youth wrote, "I learned more about Native culture and why things are done the way that they are." We asked youth, "Did you get what you wanted out of the NYL program?" Six youth wrote, "Yes," two wrote, "Kind of," and one youth wrote "No."

We asked youth, "Would you consider doing this again?" Seven youth selected "Yes" and two selected "Not Sure." When asked, "Would you recommend NYL to your friends?", eight youth wrote "Yes," and one wrote "No." The last question asked youth to list three things big or small that would make the NYL study better. A total of 25 responses were analyzed. The most frequent response related to activities (n = 6), food and drink (n = 5), more people (n = 4), opportunities for group sharing (n = 3), location and facilities (n = 2), sports or basketball (n = 2), longer times and more weeks (n = 1), kids input (n = 1), and more gifts (n = 1).

Post-It Note Responses

Eight youth responded to the question, "What text message would you send someone who wants to know more about NYL?"

#1. I would tell someone to come and find out more for themselves.

#2. There's free stuff.

#3. Food.

#4. Projects and lunch.

#5. There is a Native youth group going on.

#6. It gives you something to do.

#7. You learn about life and new Native perspectives on life. You do fun activities to learn about life.

#8. Art.

Ten youth responded to the question, "What is something that you liked, not sure, and did not like about NYL?" Most responses were things that youth liked (n = 27), others not sure (n = 11), and did not like (n = 10). The food, cultural activities, and painting of teepees were the most frequently cited responses to what youth liked (see Table 2).

Table 2
Post-it-Note Responses

Like	Count	Not Sure	Count	Did Not Like	Count
Cultural Activities/Projects	6	Location	3	Rope game	6
Friends	2	Painting horses	2	Painting horses & Teepees	2
Horses	4	Food	2	Lunch	1
Food	7	I don't know	2	Couldn't locate restroom	1
Painting Teepees	6	Rope game	1		
Nothing	1	Adults with kids	1		
Gifts	1				
Total	27		11		10

Focus Group Responses

Urban Native Youth Cultural Opportunities

When asked, "If you could describe Native youth cultural opportunities in this urban community in just a few words, what would you say?", youth responded by describing that school-based powwows and intertribal clubs at school were the only cultural opportunities for them.

Issues and Topics

We asked youth, "What types of issues and topics should NYL address?" One youth said that drugs and alcohol should be a focus area: "I see a lot of Native kids going down the wrong path and making bad decisions about drugs and alcohol." Others mentioned leadership skills, study groups, healthy relationships, and small groups with both boys and girls (separate).

Opportunities to Partner

We asked youth, "Do you see opportunities for NYL to partner with other programs and organizations in the urban community? If so, which organizations?" Youth mentioned the local YMCA, basketball leagues, family services, community outreach organizations, churches, and the school-based intertribal clubs.

DISCUSSION

This evaluation sought to explore the feasibility of urban AI youth culture-based programming and answer two questions: Is the NYL program feasible and appropriate for use with urban AI youth? And what are urban AI youth perspectives on the NYL program?

Urban AI youth have a unique set of life experiences and cultural challenges that must be considered in the development of culture-based programming (Kulis, et al., 2017; Marlatt, et al., 2003). Results from the NYL evaluation indicate that the majority of urban AI youth participated in some cultural activities or knew someone that did. And, despite being located in an urban location, urban AI youth could access cultural activities and had family members who were connected to their culture. More than half of the NYL youth participants had an Indian name. Previous research has found that when multiple generations live in an urban area, their connection to culture, spirituality, and traditions is more urbanized and secularized (Kulis, Hodge, Ayers, Brown, & Marsiglia, 2012), and culture-based programming should take these differences into account.

Findings from the NYL focus group and evaluation indicate that urban AI youth report a high-level of satisfaction with the program and enjoyed cultural activities. The high-level of satisfaction reported by urban AI youth is likely due to their involvement in planning NYL activities and the interactive nature of cultural activities. A CBPR approach lends itself to community involvement and helped guide the development and implementation process. This follows previous research, where the community-members are equal partners, with expertise and decision making roles (Minkler & Wallerstein, 2003). NYL participants rated the horsemanship and culture activity highest (M = 4.33, SD = .86). Most NYL participants (n = 7) wrote they would attend NYL again

and recommend NYL to their friends (n = 8). These results are consistent with previous research that has found culturally-based programs are more acceptable than programs developed with non-Native populations (Gone & Calf Looking, 2011). Areas for improvement related to having additional cultural activities and more youth in attendance. Due to the limited amount of time and scheduling, only three cultural activities were possible—youth feedback about additional cultural activities indicates their desire to be involved in future culture-based programming. As culture-based programming grows, the reach and number of youth involved in activities will likely increase.

Limitations

There are several limitations to this evaluation that should be considered. First, all participants were male, and this was not intended. Differences in risk, protective factors, and cultural identification can be influenced by gender. Second, we explored culture-based programming using a small sample of urban AI youth who met three times over the course of two months. This limits the generalizability and application of our findings but does not diminish their importance. It is possible that additional activities and involvement in the project would have resulted in different results. Third, youth focus group responses were limited to the results of the qualitative analysis. A larger, more diverse group of urban AI youth may result in different qualitative themes about the best ways to engage urban AI youth in cultural activities and culture-based programs. Last, the results of the NYL evaluation may be difficult to replicate in other communities because of the small number of youth participants and their distinct cultural background. Even with these limitations, the results of the NYL evaluation give us hope and direction for future work.

Recommendations

From this feasibility evaluation, there are recommendations that emerged that may be useful to the tribal consortium and other urban AI youth programs.

First, NYL documented the need for cultural activities that reach AI youth in this urban location. This was important since NYL youth reported they did not feel there were a lot of opportunities for cultural experiences. We learned that urban AI youth most often access cultural activities through school-based clubs and powwows, but school-based clubs that meet twice a month and annual powwows are not enough. The best ways to engage urban AI youth in cultural

activities is to partner with existing community programs, schools, and services. The NYL participants felt that family services, churches, schools, and local gyms, like the YMCA, would be good partners for future efforts. Urban AI youth were not aware of specific programs for cultural activities in the urban location.

Second, every urban community and location is different, and these differences should be considered in the development and expansion of urban AI culture-based programming. Community advisory boards and committees play an important role in bridging partnerships, documenting existing resources and activities, and disseminating information.

Third, urban AI youth could benefit from programming that addresses specific topics like drugs and alcohol, mental health, academic success, study groups, community service projects, and healthy relationships. Such programs and topics would need to be co-designed with the community advisory board, staff, and urban AI youth to ensure they were developmentally appropriate and responsive to youth needs.

Fourth, increasing the reach and diversity of urban AI youth involved in future culture-based programs will add to the rich, cultural exchange that occurs when urban AI youth come together to share and learn about their culture.

Finally, in many urban locations there are AI centers or facilities dedicated to tribes in the region. These facilities are critical for urban AI youth and families because they serve as a hub for cultural exchange, cultural activities, ceremonies, sharing meals, and various cultural connections. However, in this urban location, and in many other urban locations throughout the United States, there are not AI centers or facilities. In the absence of such facilities, tribal consortiums, tribal leaders, and schools can help by providing funding, facilities, and support for urban AI youth culture-based programming.

CONCLUSION

The NYL feasibility evaluation is the first evaluation of an urban AI youth culture-based program in Montana. The approach and recommendations outlined in this paper may be useful to schools, tribal consortiums, urban American Indian Centers, funders, and policy makers in their efforts to design, implement, and advocate for culture-based programming in urban locations.

Urban AI youth are a unique population with histories, traditions, and kinship systems that could benefit from future culture-based prevention programs. Documenting the feasibility of

culture-based prevention programs is an important first step toward addressing substance use and mental health disparities in this population. Urban AI youth perspectives highlighted in this evaluation underscore the need for continued efforts that connect youth with their culture, values, kinship systems, and way of life. As one NYL youth participant said, "I learned more about Native culture and why things are done the way that they are."

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ASSESSING THE INTEREST AND CULTURAL CONGRUENCE OF CONTINGENCY MANAGEMENT AS AN INTERVENTION FOR ALCOHOL MISUSE AMONG YOUNGER AMERICAN INDIAN ADULTS

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Abstract: A qualitative study was conducted to assess interest in contingency management (CM) for younger American Indian (AI) adults (18-29 years old), how to culturally and developmentally adapt CM for younger AI adults, and interest in CM relative to culturally grounded treatment approaches. We conducted a total of four focus groups with younger adults and families in two AI communities: a rural reservation and an urban Indian health clinic (n = 32). Four overarching themes emerged suggesting that offering prizes, cultural activities, and activities that capture the attention of younger adults integrated into the CM intervention is ideal for enhancing engagement.

INTRODUCTION

Many American Indian (AI) communities have high rates of alcohol abstinence with those residing on tribal lands abstaining more (60.3%) than those residing off tribal lands (47.0; National Institutes of Health, 2006; Park-Lee et al., 2018). Despite this, AI youth are at increased risk of alcohol use at a younger age (Whitesell, Beals, Big Crow, Mitchell, & Novins, 2012), highlighted by recent research indicating AI eighth graders are 70% more likely than non-AI eighth graders to have drank in their lifetime (Swaim & Stanley, 2018). Depending on age, the past-month rate of alcohol use can be twice as high among AI youth (36.7%) as among non-AI youth (14.8%; Stanley, Harness, Swaim, & Beauvais, 2014). Emerging adulthood, defined as ages 18-29 (Arnett, Žukauskienė, & Sugimura, 2014; O'Connell, Boat, & Warner, 2009), is important to consider because 50% of alcohol use disorders (AUDs) and mental health disorders are diagnosed before age 25 (Furstenberg, Kennedy, McCloyd, Rumbaut, & Settersten, 2003; Odgers et al., 2008). Therefore, AUD is thought of as a developmental disease, and emerging or young adulthood is

considered to be an important period in intervening in the trajectory of lifetime alcohol misuse (Catalano et al., 2012; Johnston, O'Malley, Miech, Bachman, & Schulenberg, 2016).

Over the last two decades, interventions have been developed with, by, and for AI people to address the need to effectively treat AUDs in AI communities. However, these interventions have mainly targeted adults and range from promising practices to community-defined efficacy. For example, Gathering of Native Americans (GONA) is a promising prevention practice developed in the 1990s through the Substance Abuse and Mental Health Service Administration (SAMHSA) Center for Prevention for Substance Abuse as a program to reduce alcohol and substance use in AI communities, including a component for youth. The curriculum emphasizes healing trauma and revitalizing traditional values, practices, and traditions in a conference format over a four-day period. Although GONA is one of the most widely implemented prevention interventions in AI communities (partially due to past funding support from SAMHSA and the Indian Health Service), it is not on evidence-based practice registries due to the lack of published outcome research (Nebelkopf et al., 2011; Wright et al., 2011).

The Alaska People Awakening is another example of a culturally-grounded intervention that has demonstrated promising results in successfully targeting suicide and co-occurring alcohol and other substance use among both adults and adolescents (Allen, Mohatt, Fok, & Henry, 2009; Rasmus et al., 2016). Practice-based and community-defined interventions for younger adults include White Bison/Wellbriety, which merges cultural spiritual teachings, teachings of the Medicine Wheel, and standard Alcoholics Anonymous support groups. Much of the evidence of effectiveness for this program comes from the wide-ranging utilization of the Wellbriety practice, which is commonly available to youth in many AI communities (Coyhis & Simonelli, 2008). Two treatment facilities in the United States are certified to deliver Wellbriety services: Volunteers of America Northern Rockies and the Native American Rehabilitation Association (NARA), an AI-owned and -operated residential treatment facility located in Portland, Oregon.

Some communities believe that traditional approaches are the most effective form of intervening in drug and alcohol misuse among AI people (Gone, 2011). In many tribal communities, there is an agreement that "culture is treatment" (Gone & Calf Looking, 2011). Consistently, AI people believe that it is a return to traditional practices and ceremony that will ultimately heal and lead to long-term recovery (Gone & Calf Looking, 2011). Among youth specifically, promising results in treating addiction were observed when sweat lodges, singing, drumming, storytelling, art, teachings of the Elders, cultural teachings about tribal history, fasting,

ceremonial feasts, natural and traditional medicines, and equine therapy were incorporated into treatment (Boyd-Ball, 2003; Dell et al., 2011; Dell & Hopkins, 2011; Rowan et al., 2014). This kind of holistic spiritual and cultural immersion is believed to improve outcomes because it enhances family, non-family, and cultural connectedness, all of which are protective factors correlated with enhancing psychological well-being among AI youth and young adults (Henson, Sabo, Trujillo, & Tuefel-Shone, 2017; Walls, Pearson, Kading, & Teyra, 2016).

In a culturally-grounded approach, Donovan and colleagues (2015) developed a curriculum for AI adolescents generated from the cultural values and traditions of three Pacific Northwest tribes to address drug and alcohol misuse with empirically supported increases in cultural protective factors of hope, self-efficacy, and optimism. In another study that adapted motivational interviewing for urban AI youth, Dickerson et al. (2015) determined that AI youth were interested in engaging in their culture and that the intervention provided an opportunity for cultural engagement.

The previous list of treatments and interventions are promising in terms of effectively treating AUDs and substance use disorders (SUDs) among AI youth and adults. However, to our knowledge, there are no published studies of interventions specifically targeting AI emerging adults. Currently our research group is conducting a study evaluating the effectiveness of a contingency management (CM) intervention among three AI communities in collaboration with tribal partners. CM is a behavioral intervention based in the theory of operant conditioning, where positive reinforcers (i.e., tangible prizes, gift cards) are provided when a specific targeted behavior has been met and assessed at every study visit (e.g., biochemically confirmed abstinence; McDonell et al., 2017; Lussier, Heil, Mongeon, Badger, & Higgins, 2006). The design of the trial has been previously published (McDonell et al., 2016). As part of the CM study, qualitative research was conducted to increase the cultural acceptability of the active clinical trial of CM for AUD among three tribal communities (Hirchak et al., 2018). However, the CM intervention was not optimized specifically for the AI emerging adult population using qualitative methods. Therefore, the current study examined AI emerging adults and family interest in CM as an add-on to treatment or as a standalone intervention, compared to other interventions and cultural practices, in addition to integrating cultural activities into the CM intervention. The results will inform future population- and developmentally-specific interventions for treating AUDs among younger AI adults.

METHODS

Research Setting

Four focus groups were conducted with 32 participants. Two focus groups at an urban Indian health center in the Northwest (primarily made up of 18-29 year-olds) and two in a rural reservation community (one only for 18-29 year-olds, the other including both 18-29 year-olds and family members). Inclusion criteria were self-identifying as an AI adult, being 18 years or older, residence, and desire to discuss alcohol treatment options available to AI younger adults. An average of 8 people participated in each focus group. Focus groups were approximately one hour long, and the average transcript page length was 16. The urban and rural sites assisted in increasing generalizability by obtaining a more heterogeneous sample of AI adults.

Focus Group Methods

We reimbursed focus group participants with $20 gift cards. Qualitative research methods and procedures followed the protocols of the parent CM clinical trial, informed by the Community Advisory Board. Focus groups were conducted by AI/AN researchers who were also members of the participating communities. Recruitment was conducted through referrals from service providers, flyers hung in key locations and posted to community members' Facebook pages, and through radio advertisements. Data were collected, organized, synthesized, critically analyzed, and interpreted, in addition to being examined for participant insight, in accordance with previously successful qualitative research practices among AI communities and within the communities in which the focus groups were conducted (Kovach, 2010). Data were then compared to the existing literature to determine similarities and differences in the findings. The study design was approved by the Washington State University and Rocky Mountain Tribal Institutional Review Board.

Qualitative Methodology

We conducted qualitative data analysis utilizing qualitative description (Neergaard, Olesen, Andersen, & Sondergaard, 2009; Sandelowski, 2010). A comprehensive literature review and the Community Advisory Board of the CM clinical trial informed the development of questions and focus group processes. A complete list of focus group questions can be found in the Appendix. The focus group sessions consisted of an informational process, including a PowerPoint presentation. We played a short two-minute video about CM to begin the discussion, and the focus groups were audio

recorded for transcription. Following previous focus group procedures among AI communities, we facilitated focus groups as a sharing or talking circle (Lavallee, 2009). The circle process is customary in the regions where the focus groups were conducted and has been used among AI communities because it allows those in the circle to share their lived experience and viewpoints uninterrupted (Kovach, 2010; Lavallee, 2009). Talking circles are also important for creating a safe environment in a culturally appropriate manner (Kovach, 2010). Talking circles begin with one person talking at a time, moving around the circle in a clockwise direction. After everyone had shared their opinion, the focus groups were opened up to a larger discussion about each question until each question had been discussed at length, evidenced when participants began to repeat themselves or no one had anything else to add.

Two coders independently conducted thematic coding of focus group transcripts. Themes identified by both coders in each focus group also assisted with adapting the current CM intervention in the community. Theoretical saturation occurred when no new themes emerged from the data. Themes and sub-themes were identified when they occurred across at least two focus groups and when the content of a theme or sub-theme was discussed within a focus group for more than five minutes. We repeated this process of theme and sub-theme identification until consensus was reached between the coders (Johnson & Christensen, 2004). Themes identified across focus groups will inform CM adaptations across communities. Qualitative Data Analysis software was used by both coders (Qualitative Data Analysis Miner Lite, 2017). The software was used to reduce bias and assist in identifying themes between and within coders, identify frequency of words, in addition to overarching and sub-themes.

RESULTS

Focus Group Demographics and Data

Focus group characteristics are summarized in Table 1. The sample was made up of 32 individuals from 13 tribal nations. Participants were primarily male (62.5%), half were emerging adults (51.6%), with a high school education (50.0%), unemployed (82.2%), and living with family (43.8%) or renting (21.9%). Three focus groups contained emerging adults and family and one focus group was made up entirely of emerging adults. Additionally, all focus group participants self-disclosed actively using alcohol or were currently in recovery.

Focus Group Themes

Four overarching themes emerged with corresponding sub-themes (Table 2): a) an agreement of interest in CM for younger adults; b) culture, community, and activities; c) treatment barriers and retention; and d) marketing and outreach.

Table 1
Focus Group Demographics

Focus Group Characteristics	Mean	*SD*	%	Total
Age				
Urban Focus Group 1	27.8	6.7		
Urban Focus Group 2	27.5	9.6		
Rural Reservation Focus Group 1	43.2	13.8		
Rural Reservation Focus Group 2	20.8	3.2		
Emerging adults (18-29)			51.6	
Male			62.5	
Federally recognized tribes				13
Enrolled			90.6	
Education				
Less than high school			21.9	
High school			50.0	
Some college			28.1	
Unemployed			81.2	
Housing status				
Homeless			18.8	
Renting an apartment/house			21.9	
Lives with family			43.8	
Transitional housing/sober living			6.3	
Home owner			9.4	

Table 2
Overarching Themes

Overarching theme	Frequency counts
Interest in CM for younger adults	235
Culture, community support and activities	198
Treatment barriers and retention	101
Marketing and outreach	46

Interest in CM

Across the focus groups, and regardless of the age of the focus group participant, there was agreement that younger AI adults would be interested in a CM treatment option. The discussion

included the need for choice, offering practical prizes along with activities that were both cultural and engaging to younger adults. In addition, participants emphasized that recovery is a personal decision (Table 3). People believed that choice for younger AI people was the most important. To facilitate engagement in the CM intervention, younger adults suggested allowing for choice between prizes, cultural activities, and other activities aimed at emerging adults. Combining activities along with prizes was the most consistent recommendation for tailoring the CM intervention to younger AI adults.

Table 4 includes a list of prizes and activities recommended across the four focus groups. Participants in one of the rural reservation focus groups stressed the need for both practical prizes for participants' children, as well as prizes geared to supplement the income of intervention participants. In the rural reservation focus groups, participants underscored the economic struggle of being a parent on the reservation (approximately 60% of the reservation sample were parents). Participants reasoned that prizes for younger adults should focus on the practical, in addition to larger prizes such as electronics, for young adult parents. For the focus groups in the urban locations, participants noted issues around cultural engagement, but that greater economic opportunity available in a city was the tradeoff for a lack of cultural activities. All the focus groups believed that although CM would be a good treatment option for younger adults, changing behaviors was up to each individual. Participants highlighted the tension between the need for individuals to engage in available treatments with individual choice or desire to become sober and enter recovery (Table 3).

Table 3
Interest in CM for Younger AI Adults

Theme	Example Quote
Interest in CM	"I think once they really get into it [incentives] will keep them coming back and wanting to stay sober or quitting."
	"I think it would not only be beneficial to them but give them something to look forward to give them a little more incentive to work towards things, you know like their sobriety."
Incentives	"The incentives…a good way to treat yourself good. You're doing good. You know, you're thinking positive about addressing your problem."
Not everybody is the same	"I think that it depends on who they are. Like if they were going to take this program seriously… not everybody is the same. And I think that if they knew more about the program just instead of it being recovery. Kinda give them a better idea. It just kinda depends on the person."

Table 4
Prizes and Activities

Suggestion	Example Prize or Activity
Prizes	Gift cards, $20 gift cards, gift cards for electronics, DVD player, TVs, music, MP3 player, tablet, headphones, work towards bigger prize.
Practical prizes	Shampoo, tissue, washer and dryer, housing.
Practical prizes for participants' children	Diapers, clothes, school supplies, shoes
Cultural activities	Powwows, hand/stick games, horse culture, sweats, beading, tipi building, basket weaving, singing, drumming, Indian taco weekend, frybread making, serving Indian corn, bilingual activities to keep up the language, root/berry gathering.
Fun activities	Basketball, volleyball and video game tournaments, trips, outdoor activities, playing sports, see their friends and socialize, movie passes, cook-offs.

Culture, Community Support, and Activities

Focus group participants considered meaningful engagement in culture to be an important aspect of recovery for younger AI adults (Table 5). Sub-themes included cultural engagement and strengths, community support expressed as "help them, help themselves," and choice between culture and prizes, in addition to cultural activities and fun activities. The rural reservation focus groups cited culture as the source of a younger person's strength. Participants across locations agreed drinking alcohol and using drugs was incongruent with cultural engagement. All the focus groups underscored the importance of sobriety to participate in cultural activities (Table 5).

Table 6 highlights the interest in the CM intervention providing both cultural activities and fun activities for younger AI adults (e.g., basketball tournaments). There was agreement across the focus groups that it would be best for the intervention to provide transportation and opportunities to travel through playing sports, or transportation to other activities. People believed that younger adults would not be interested in participating if the CM intervention was located at a treatment center or directly related to treatment services. Focus groups suggested enhancing interest by housing the CM intervention at other organizations in the community, such as the Boys and Girls Club or an urban Indian center separate from treatment.

There were several cultural activities that focus group participants suggested (Table 6). Cultural activities included learning the AI language or providing the intervention in the AI language of the community. Participants expressed interest in participating in cultural activities such as beading classes and traditional crafts, in addition to attending hosted events including

powwows, singing, and drumming sessions. Focus group participants also suggested serving traditional foods, like Indian corn or having frybread cook-offs as a reward (Table 4).

Table 5
Culture and Community Support

Theme	Example Quote
Cultural engagement and strengths	"I think there's a thirst for culture in the younger Natives that weren't raised with it, these days."
	"That's where I go when I think I'm losing it.... that is where I find my strength."
	"You go to sweats and stuff keeps you sober. Keeps you out of trouble."
	"Everybody gets into their culture, eventually."
	"It recognizes that we are lost without our culture.... The medicine wheel constantly up there when we come in we see it and we get reminded that you know, we are human-beings and we need this."
Help them, help themselves	"Whoever like, seen you struggle and actually picked you up and helped you get back on your feet and where you are supposed to be at in life. ... For me, myself, it's my auntie that helped me. She's the one that got me at where I am today. So, she's my main support... whoever you was raised around. Who you feel comfortable about opening up to."
Choice between culture or prizes	"Have that choice of culture and gifts. Make it a way so that culture is involved but you're still getting an incentive."
	"Choice matters."
	"I would say prizes. I mean, like for me sweats are easy to find, working with horses is easy to find, powwows, practically everything is easy to find.... beading. I can always find that. But I can't find money, is the point. So, yeah I would say prizes."

Table 6
Activities

Theme	Example Quote
Cultural activities	"Engage in cultural activities is kind of a prize, too...they probably want to do like sweats and be with a horse and stuff but like, because they probably grew up on it, but like drinking probably kept them away from their family and made them stop doing the stuff that they used to do. Probably would want to do that again."
	"A beading course, and if the beading course is a hit, continue with the beading until someone picks it up, or until you have a medallion...in-between let them take their beadwork home with them and work on it and if they have more questions come back on that second pee test get your incentives, plus finish working on the beadwork."
Fun activities	"It would be good for youths and adults...kicking butt and winning champions on basketball...volleyball tournaments...They would go traveling, too. They don't just stay on the reservation they go to different reservations and play against the other teams."
	"Have all these families interact. Do activities and then they would get rewarded for after the program, after what they all did. They would get rewarded."

Treatment Barriers and Retention

Focus group participants also highlighted engagement, retention, and barriers to treatment (Tables 7 and 8). With respect to available treatment, those in the urban focus groups highlighted a complete lack of access to treatment. This included a lack of both Western-based treatment and culturally grounded treatment in their community, but participants discussed going to cultural residential treatment centers in other areas away from home. Rural reservation participants mentioned outpatient options that incorporated the sweat lodge and horse culture. Both urban and rural locations discussed Alcoholics Anonymous and peer-support groups as an essential component of younger AI adults' recovery (Table 7 and 8).

Across regions, focus group participants agreed transportation was a major barrier to treatment engagement and retention (Table 7). Another factor included treatment providers. If providers were not relatable or did not provide genuine peer-support, focus group participants suggested that this would cause younger AI adults to dropout of treatment or the CM intervention. Other reasons for attrition were related to motivation. On the rural reservation, focus group participants suggested that it was easier to drink alcohol and use drugs than join in recovery activities. This was said to be due to being "lazy" or "stubborn" in ones' addiction. Lack of community resources and not addressing the "root cause" of drug and alcohol misuse are other factors in younger AI adults choosing to continue to drink alcohol and use drugs instead of pursuing recovery (Table 7).

Table 7
Barriers to Treatment

Theme	Example Quote
Recovery does have its negative connotations	"…Something that would be helpful to prevent relapse something that I've seen time and time again is people don't like dealing with the root issues. It's not just drugs and alcohol there is a deeper issue that's most of the time why people turn to drugs and alcohol to cover that pain and mask what's really going on."
	"Seeing their Elders and siblings go through it. And you get that criminal aspect that gets stuck with. You kind of look around see who is watching you come out of this building. Because people they do talk."
Transportation	"We try and help ourselves going to AA [Alcoholics Anonymous] that was helping us. Keeping us sober there for a minute. Then we couldn't find rides to go back then we fell off again, and literally just trying to find our way back, to go back to being sober."
	"Another reason for them to really not be attending all the time would be transportation."

Table 8
Treatment Retention

Theme	Example Quote
Motivate you to not want to drink	"Some treatments they allow your kids to go with you. And I would like to go and do something like that. To have my kids there."
	"I think one of the barriers would be maybe, just people are not accepting the truth. Not accepting their addiction or problem or not wanting to face it. Maybe going to a certain group or something will make them realize how bad they're into their addiction or their problems. And it would make them want to drop out and want to use again."
	"It really matters on your support system, I guess. Even if you don't call it that. Your circle. If they are positive, then they are going to motivate you to not want to drink."
Peer-support and genuine care	"If they are a strong member of the group, somebody should be appointed to call 'em up and say, 'Hey, are you doing ok? What's going on? Can we help you get back to group?' …Because once you do that, they are gonna say, "Well, they didn't care about me anyways. So, I'm not going back.'"
	"If you don't have the support I don't think they will go very far. …It's awesome you give out free gifts… but…if you don't have the support, it eventually will fade out."
	"If they don't got no support then incentives don't mean nothing to them."
	"Genuine care…. the concern. That doesn't cost any money."

Marketing and Outreach

The focus groups discussed how to market the CM intervention to capture the attention of younger people and increase participation and referral (Table 9). Focus groups in the rural reservation community were concerned with community visibility and social media. It was important for emerging adults that their family and others in the community know the positive activities they are involved in. Emerging adults recommended developing and hanging visually appealing posters in the community and posting them on social media. They emphasized the importance of creating a Facebook page, Instagram, and Snapchat accounts for engagement of younger people.

In addition, print news and other online media outlets could increase visibility of the CM intervention. The urban focus groups recommended making and posting videos on social media that involved the community to increase awareness and education around alcohol and drug misuse (Table 9). Urban focus group participants also suggested developing tee-shirts and other program materials to enhance visibility while also fostering social connectedness and a sense of belonging for the entire community.

Table 9
Marketing and Outreach

Theme	Example Quote
Capture their attention	"Advertising…kind of cool like seeing these kids…teaching them better things to do than just drugs and alcohol."
	"Advertisement has a lot to do with it because if it's not advertised you're not going to know where to go or what to do, for that matter."
	"Commercial[s]…for more Natives to come and go to that place."
Community visibility	"Posters, too…at stores. If their grandparents come through and see 'Oh, that's what you're doing.'"
	"You're struggling, we would like to hear about your struggle, you would be helping us and in return we would help you."

Distinct and Common Themes

There were notable differences between the regions, and some themes were divergent based upon location. These were related to culture, support of intertribal people in urban areas, well-being, motivations for staying in recovery, issues related to peers, and cumulative prizes as a bigger recovery goal. The rural reservation focus groups underscored the point that culture was accessible and mentioned no issues about cultural engagement. The urban focus groups highlighted barriers around cultural participation and were mainly concerned with the differences between tribes and respecting these differences by offering a variety of activities, with Elders and teachers from different AI cultural groups as facilitators.

In addition, it was important to reservation focus group participants that the meaning behind cultural ceremonies and cultural activities be explicit so that younger people understood the purpose of the activity. The rural groups emphasized the importance of the environment and the connection between culture and place. Another distinct topic in the rural focus groups was well-being. Both rural groups mentioned the importance of finding harmony and balance through living by the medicine wheel teachings. Rural reservation participants also mentioned that the motivation behind younger adults' recovery was their kids and family. The urban groups did not mention this, but the groups across regions did discuss at length the desire to learn traditional and cultural practices so that they could pass on that cultural knowledge to their children. Although shame was identified by one of the urban focus groups as a potential barrier to treatment retention or engagement, it was much more prominent among the rural reservation focus groups.

The rural reservation focus groups believed that peer influence, such as peer-pressure to drink alcohol and use drugs or feeling like peers were judging them for acting superior by entering

recovery, plays a significant role in treatment outcomes. In addition, one of the rural reservation focus groups was concerned about the marketing of the CM intervention. There was consensus that if not done appropriately, advertising the intervention might reinforce negative stereotypes of AI alcoholism or make younger adults feel like "guinea pigs." To ensure that this does not occur, the participants suggested framing the CM intervention as a "warrior society" or in positive terms of it helping individuals and communities with a sense of belonging and connectedness. Another distinct theme in the urban area was the interest in prizes being cumulative and a "bigger goal" to work towards. The participants in the city recommended offering practical items along with larger prizes that were something to look forward to, such as taking a trip. The reservation focus group participants did not mention providing larger cumulative prizes or offering a trip as a specific prize.

DISCUSSION

This is the first qualitative study that we are aware of to assess younger adults' interest in CM as a standalone intervention to address AUDs. We examined general interest in CM, in addition to whether younger AI adults would be interested in a culturally adapted version of CM. Results indicated four primary themes to consider when developing a CM intervention for AUDs among AI emerging adults. First, focus group participants agreed that 18- to 29-year-old AI adults would be interested in participating in a CM intervention for alcohol. Participants underscored the importance of choice within the CM intervention. Second, focus groups recommend providing practical and fun prizes. In addition, focus group participants suggested facilitating cultural activities and activities geared towards younger adults as part of the intervention to increase engagement and retention. Third, the analysis indicted there were issues related to access, including retention, and barriers to treatment such as transportation. Fourth, it was important to focus group participants that the intervention include marketing and outreach to increase community involvement and intervention visibility.

Within the analysis, the two coders identified common and distinct themes across the focus groups that were separate from the four overarching themes. These themes were related to cultural support in urban areas that highlighted issues around engagement; thoughts on well-being that were distinct between the rural and urban regions; motivation to stay sober, as well as influence of peers; and cumulative prizes as a bigger recovery goal, identified by the urban focus groups, but not within the rural area.

In a recent qualitative study that examined increasing the cultural acceptability of a CM intervention for alcohol among AI/AN adults, Hirchak et al., (2018) also noted that participants were interested in both practical and material prizes, in addition to experiential activities offered as a part of the CM intervention. In both studies, participants recommended offering activities that included the entire community as well as intervention participants' families, to increase participation and create an alternative to alcohol use.

Hirchak and colleagues (2018) also found that participants agreed Elders and community champions would be important to successfully implementing the CM intervention in the community. Results from the current study did not find this specifically, perhaps due to the sample which did not include community providers as participants, but younger AI adults did highlight the importance of who delivered the intervention. This included providers that were relatable and that peer-support was important to successful treatment outcomes. One of the urban focus groups suggested the Elders or cultural teachers that facilitate the activities be from diverse backgrounds to enhance inclusion. Lastly, unlike findings in previous studies of CM (Hirchak et al., 2018), none of the focus groups brought up the concern that emerging adults might try to sell or trade the gift cards or prizes for alcohol or drugs.

Our findings support previous research on AI youths' interest in cultural engagement as part of alcohol and drug interventions. Similar to our findings, the analysis in Donovan et al. (2015) identified interest among AI youth to engage in cultural activities and traditions to enhance cultural identity and address substance misuse in the community. In addition, our results support the findings of Dickerson and colleagues (2015) that urban focus group participants were concerned about the diversity of "inner-city" AI communities and the need to respect differences and find commonalities to increase participation in the intervention among tribes in larger areas. Our findings also identified barriers to participation, mainly a lack of transportation and limited opportunities to engage in cultural activities in an urban setting (Dickerson et al., 2015).

Given the heterogeneity of tribal communities, limitations of this study include the fact that the findings are from two AI communities and may therefore not generalize to AI emerging adults from other regions. In addition, we assembled the focus groups through purposive sampling, which included family members, in addition to those in the targeted age range. Future research should attempt to include only younger AI adults to enhance understanding of the interest level in CM among younger AI adults. Strengths of this study include the relatively large sample size among AI communities (Guest, Namey, & McKenna, 2017; Rink et al., 2016).

In addition, focus groups were in urban and rural regions to increase external validity and highlight potential similarities and differences between areas that may be useful in adapting a CM intervention for AI emerging adults. Focus group participants were also actively using alcohol or were currently in recovery, which increases community and researcher knowledge in better understanding those that may be seeking treatment and the treatment needs and preferences of AI adults residing in urban and rural locations. These findings may be used to culturally adapt future CM interventions among younger AI adults or could be important factors to consider when developing or implementing other treatment services among younger AI cohorts.

CONCLUSION

This qualitative study suggests that AI emerging adults would be interested in CM to address AUDs. Offering prizes, cultural activities, and activities that capture the attention of emerging adults is ideal for enhancing CM intervention engagement. Across sites, participants recommended marketing the intervention on social media and increasing community visibility and engagement through the development of videos and posters designed for emerging adults. Barriers to access and retention among AI emerging adults included transportation and environmental factors, underscoring the need for continued research in how to better meet the treatment needs of younger AI adults.

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APPENDIX

Appendix A: Qualitative Research Questions

Interest/Potential Concerns with CM for AI Younger People:

- If contingency management were available for young people, do you think they would want to participate? Would they be interested compared to what else is available in their community? Would their friends? Why/why not?
- What alcohol treatments are available in your community?
- What are barriers to accessing CM if it were available? What are reasons why people might dropout of CM?
- Would you rather be rewarded with prizes or engage in cultural activities? What kinds of cultural activities would be a good reward (learning about horses, language, harvesting/wildcrafting)?
- To what extent is culture included in the available alcohol treatments and how could culture be incorporated into the CM intervention?

Questions about Culture:

- Are there aspects of your culture that could help promote well-being among people your age?

Questions about Support/Social Networks:

- Who do you think are the most supportive people in your life/a younger persons' life? Who do you/younger people go to for help/when they are struggling?

General Questions about Community Environment:

- What do you see as the strengths of your community (culture, Elders, programs, organizations, etc.)? What makes you proud about your community?

EXPERIENCES OF MICROAGGRESSIONS AMONG AMERICAN INDIAN AND ALASKA NATIVE STUDENTS IN TWO POST-SECONDARY CONTEXTS

Victoria O'Keefe, PhD, LP, and Brenna Greenfield, PhD, LP

Abstract: American Indians/Alaska Natives (AI/ANs) are subject to widespread cultural misrepresentations ranging from intrusive questions about ethnic identity to Native-themed sports team mascots. Racial microaggressions are linked to negative physical health, mental health, and academic consequences for AI/ANs. This study examines microaggressions experienced by AI/AN post-secondary students in New Mexico and Oklahoma. Microaggression prevalence ratings and associated distress were compared across region, gender, income, age, and cultural involvement. Results showed microaggressions were highly prevalent among AI/AN students in New Mexico and Oklahoma and varied by demographic and cultural factors. Increased AI/AN microaggressions research is needed to bring awareness, education, and solutions.

"All too often we are still seen as objects or as a people trapped in the past-tense. We are twenty first century people, and must be seen as such in order to deal with the serious issues that face us today." Charlene Teters (Spokane)

INTRODUCTION

Although many middle school textbooks erroneously teach that U.S. history began in 1492, American Indian/Alaska Native (AI/AN) communities have origin stories and histories far predating European contact (Calloway, 2012). Post-contact, tribal communities were introduced to foreign diseases, models of recreational alcohol use, warfare, and intentional genocidal and assimilation tactics (e.g., forced removal, militaristic-style boarding schools, termination, urban relocation, continual treaty violations; Calloway, 2012; Nabakov, 1999; Thornton, 1987). These broad historical and current events impacted (and continue to impact via intergenerational trauma, see Brave Heart & DeBruyn, 1998) myriad Indigenous peoples throughout North America. Such

events have had devastating consequences, including the dehumanization of peoples, cultures, and ways of life and represent a form of discrimination felt by AI/ANs in the United States, as well as by First Nations, Inuit, and Métis communities in Canada and Indigenous peoples throughout the world. Despite these events, Indigenous peoples remain resilient and continue to adapt while carrying on cultural traditions.

Historic and current racial discrimination results in the invalidation of several aspects of AI/AN life (Sue, 2010). AI/ANs are subject to numerous cultural misrepresentations derived from academic textbooks, media, and tourist attractions (Mihesuah, 1996). These cultural misrepresentations are subsumed under the larger category of discrimination and known as racial microaggressions. Racial microaggressions are "brief, everyday exchanges that send denigrating messages to people of color because they belong to a racial minority group" (Sue et al., 2007, p. 273). Recently, the microaggressions construct and research methods used to measure these experiences (e.g., subjective self-report) have been questioned (Lilienfeld, 2017). Despite critiques surrounding the operational definition and scientific rigor of microaggressions research, there is a simultaneous acknowledgement that "the existence of such indignities is undeniable" and that continued research on daily, subtle forms of discrimination is needed (Lilienfeld, 2017, p. 141). Examples of microaggressions targeting Indigenous peoples include sports team mascots with Native-themed names/caricatures (e.g., Chief Illiniwek; Cleveland Indians; Chae & Walters, 2009; Clark, Spanierman, Reed, Soble, & Cabana, 2011; Sue, 2010), dismissing Indigenous peoples' lived experiences (e.g., minimizing the importance of culture; Jones & Galliher, 2015; Walls, Gonzalez, Gladney, & Onello, 2015), questioning racial/ethnic identity (e.g., non-Indigenous strangers making disparaging comments/questions about racial/ethnic identity; Clark, Kleinman, Spanierman, Isaac, & Poolokasingham, 2014), historical misrepresentations of contemporary experiences (e.g., assuming Indigenous peoples live in teepees; Clark et al., 2014), and physical or symbolical invisibility (e.g., absence of Indigenous peoples on campus or omission from textbooks/curricula; Clark et al., 2014).

American Indian/Alaska Native Microaggressions Research

Recent empirical research demonstrates negative health impacts associated with microaggressions. Among AI adults with type 2 diabetes, microaggressions experienced while seeking health care were related to past year heart attack history and hospitalization after controlling for demographic and clinic factors (Walls et al., 2015). In another study, racial

microaggressions were associated with physical pain among two-spirit AI/ANs (Chae & Walters, 2009). Microaggressions have also been associated with lower self-esteem and feeling less value in community (Fryberg, Markus, Oyserman, & Stone, 2008), depression symptoms (Walls et al., 2015), and feeling upset by these occurrences (Jones & Galliher, 2015) among Indigenous youth and adults.

The racial discrimination that students experience extends a historical aim to assimilate Indigenous peoples to mainstream society vis-à-vis educational settings (e.g., boarding/residential schools; Cerecer, 2013). According to Grande (2004), "Indian education was never simply about the desire to 'civilize' or even deculturalize a people, but rather, from its very inception, it was a project designed to colonize Indian minds as a means of gaining access to Indian labor, land, and resources" (p. 23). Unfortunately, AI/AN students continue to experience pervasive racism (including microaggressions) in their day-to-day lives (e.g., Cerecer, 2013). One study found nearly all Indigenous adults, many of whom were college students, reported experiencing a racial microaggression (Jones & Galliher, 2015). Clark and colleagues (2014) qualitatively examined racial microaggression themes experienced by Canadian Indigenous undergraduate students. Nearly all students encountered individuals who assumed Indigenous life was encapsulated in a historical past and conflicted with mainstream society.

To date, research has not compared microaggression experiences by tribe or geographic region. This is an oversight given the vast diversity of the 573 federally recognized tribes (U.S. Department of the Interior, 2018), state recognized tribes, and tribes without federal/state recognition in the United States, all with distinct histories, cultures, and contemporary contexts (Calloway, 2012). The current study compares the microaggression experiences of AI/AN students residing in New Mexico (NM) and Oklahoma (OK). These two studies were conducted separately by the authors; however, these regions are significant in that OK is ranked second and NM fourth in states with largest populations of self-identified AI/ANs (Norris, Vines, & Hoeffel, 2012). In addition, historical context is vital to understand the current impact of racism against Indigenous peoples (Robertson, 2015). NM and OK are located in geographic regions with distinct histories influencing current social environments and cultural contexts. Historical events associated with intergenerational trauma differ by tribal community, though a commonality exists in shared suffering related to attempted physical and cultural genocide (Evans-Campbell, 2008). Many of the 38 tribes currently in OK (National Conference of State Legislatures, 2016) were forcibly removed to "Indian Territory" (Strickland, 1980). The birth of the Native American Church

occurred in this area (Calloway, 2012) and continues to thrive in several communities in addition to tribal ceremonies and cultural activities (e.g., pow wows, stomp dances). Furthermore, OK colleges' and universities' enrollment of Native students ranges from approximately less than 1% to 33% (for non-Tribal Colleges and Universities; The Chronical of Higher Education, 2016). OK is home to two Tribal Colleges and Universities (TCUs), which allow for postsecondary education in tribal communities and foster a culturally-engaged environment for students (U.S. Dept. of Education, 2018). In NM, Spanish settlers' interactions with AI communities played a distinct role. In the late 1500s and early 1600s, tribes residing in NM encountered Spanish conquistadors who enslaved AIs, abused AI women, and punished those who did not convert to Catholicism or Christianity (Calloway, 2012). Despite a painful history of colonization, the 23 federally recognized tribal communities in NM (National Conference of State Legislatures, 2016) are strong nations. Tribal ceremonies (e.g., feast days; Indian Pueblo Cultural Center, 2016), languages, tribal oral histories, and cultural activities have survived and persisted in NM (Johnson, 2013). Similar to educational opportunities available for AI/AN students in OK, NM has three TCUs (U.S. Dept. of Education, 2018) and other universities (non-TCUs) with enrollment of AI/AN students ranging from less than 1% to 77.5% (The Chronicle of Higher Education, 2016).

Study Aims

Beyond institutional-level racism that can exist and is often unseen by individuals, the research question presented was how common are microaggressions, and what type are experienced by AI/AN students in their day-to-day lives? This study provides the prevalence of nine different categories of microaggressions among 504 AI/AN students attending post-secondary institutions in NM and OK. It also examines the degree to which these microaggressions bothered students. Finally, prevalence and bothered ratings are compared across region, gender, income, age, and cultural involvement to provide a nuanced picture of factors that may impact microaggression experiences.

METHOD

Participants

The NM sample included 347 AI/AN students attending two post-secondary institutions in a large city where they comprised approximately 6% of students. Eligibility criteria included: (a)

enrolled part-time or more at the four-year public university or community college, (b) 18 years or older, (c) enrolled tribal citizen or self-identify as at least ¼ AI/AN,[1] and (d) completed the survey while in the city. Graduate students at the university were not eligible to participate.

The OK sample included 157 AI students attending three universities throughout the state where they comprised approximately 4%, 5%, and 22% of students. These three universities have been identified as top institutions from which AI students graduate with bachelor's degrees. Eligibility criteria included: (a) undergraduate or graduate student at one of three four-year public universities, (b) 18 years or older, and (c) specified a tribe they identified with and self-identified as AI/AN or biracial/more than one race selected. Eleven participants identified as another race/ethnicity or had missing data; they were excluded from analyses.

Procedure

Both studies were approved by Institutional Review Boards at the respective institutions. Recruitment for the NM sample occurred in February to July of 2013 and for OK, between December 2011 and December 2012. The survey was completed online, informed consent was obtained, and participants were entered into a gift card raffle following completion.

Participants were recruited for both studies via posted flyers and email announcements sent to listservs specific to AI/AN students. In addition, participants in NM were recruited via e-mail invitations sent out to registered students who listed AI/AN as their race/ethnicity, as well as through flyers, in-person presentations at AI/AN student organizations, Facebook, and through word of mouth from community advisory board members. Additional methods for the OK sample included classroom announcements, word-of-mouth at AI/AN campus groups/events, and e-mail invitations sent through AI/AN campus organizations. The majority of participants (93%) across both studies heard about the studies via email, and this figure did not differ significantly by study.

The OK sample was part of a larger study with a focus on suicide prevention. Community engagement as part of the overall study included the researchers having a vendor table at one of the university's local pow wows to provide suicide prevention information and resources, publications by the research team, water and snacks, and to allow time for any community members to share their thoughts and stories related to suicide prevention. Community engagement also included seeking consultation from an OK AI researcher who reviewed/edited this manuscript.

[1]This eligibility criterion was used to match that of the Honor Project (Chae & Walters, 2009), the study that originally used the Microaggressions Distress Scale.

Consistent with community-based participatory research principles, the NM research was guided by input from a community advisory board consisting of AI/AN faculty, staff, and students from the participating institutions. The board assisted in all aspects of the study, including the addition of relevant measures, participant recruitment, interpretation and dissemination of findings, and review of this manuscript.

Measures

Microaggressions Scale

The Microaggressions Distress Scale (MDS; Walters, 2005) includes 10 questions that inquire about past-year overt and subtle forms of discrimination (e.g., "told by non-Natives how 'lucky' you are to be Indian," "hit or physically attacked because you are Native"). Due to researcher error, one item was missing in the OK sample ("told by non-Natives that they felt a spiritual connection to Indians"). Therefore, only nine MDS items were included in these analyses. The MDS was developed specifically for AI/ANs; an earlier version of this measure demonstrated good internal reliability ($\alpha = 0.97$; Chae & Walters, 2009).

Each MDS item had two parts. The first asked whether a particular microaggression occurred in the past year. Response options included (0) No, (1) I'm not sure but I think so, and (2) Yes. Options (1) and (2) were collapsed to create dichotomous response categories of (0) No and (1) Yes/not sure but think so. The responses to these items were summed for the MDS Total, which had a range of 0 to 9 and represented the number of microaggressions participants experienced in the past year. The second part of each MDS item asked how much participants were bothered by each microaggression. This was only presented if participants responded "Yes" or "I'm not sure but I think so" to the first part of each MDS item. Response options to this second part included (0) Not at all, (1) A little, (2) Some, (3) A lot, and (4) Extremely; we report average bothered levels for participants that experienced the microaggression.

American Indian/Alaska Native Cultural Involvement

Three yes/no questions inquired about whether participants (a) spoke their tribal language, (b) participated in their tribe's traditional ceremonies/dances, and (c) made cultural arts. The wording for each sample was slightly different but overall comparable. An additional question (Whitbeck, Chen, Hoyt, & Adams, 2004) inquired about the importance of traditional spiritual beliefs/values and response options included "Not at all," "Somewhat," or "Very important."

Statistical Analyses

All analyses were conducted in SPSS version 24 (IBM Corporation, 2016). Basic demographic differences between the two samples were computed using independent samples *t*-tests and Pearson's chi-square tests. The percentage of students endorsing each of the nine microaggressions is reported for the sample overall and also by location (NM vs. OK), gender (male vs. female), age (18-25 years, 26-39 years, and 40-65 years), annual household income ($0-9,999; $10,000-29,999; $30,000-49,999; $50,000-79,999; $80,000 and above), and the three cultural variables (speak tribe's language; make cultural arts; participate in traditional ceremonies/dances). The total score on the MDS is reported for the sample overall and for each subgroup, and average bothered ratings on the MDS are provided for the total sample and each subgroup. Differences between the groups listed above were computed using independent samples *t*-tests, Pearson's chi-square tests, and one-way analysis of variance. Significance levels were set to $p < .01$ to control for multiple comparisons.

RESULTS

Sample Demographics

The overall sample included 504 students (31% male) ages 18 to 65 years, with an average age of 27 years (Table 1). Most students identified as AI/AN only (89%), and 93% were from tribes in the same geographic region as their respective universities. Sixty percent had an annual family income of less than $30,000 ($n = 299$). Compared to OK, students in NM were significantly older and more likely to be male, identify an additional race/ethnicity, have lower income, and be from a tribe from a region outside of their university (Table 1). About half spoke their tribal language (55%), 43% participated in traditional ceremonies/dances, 41% said traditional spiritual values were very important to how they lived their lives, and 38% engaged in cultural arts. Language knowledge did not differ between NM and OK students. However, students from NM were significantly more likely to participate in traditional ceremonies/dances, make cultural arts, and rate traditional spiritual beliefs as important (Table 1).

Table 1
Participant Characteristics and Differences by Geographic Region

	Overall sample	New Mexico	Oklahoma	p-value
Age, years (*M*, *SD*)	26.85 (9.55)	28.45 (9.97)	23.32 (7.44)	<.001
Community college: years working on degree	n/a	2.15 (2.32)	n/a	
University: academic status				
Freshman	42 (16.0)	11 (10.1)	31 (20.1)	<.001
Sophomore	59 (22.4)	26 (23.9)	33 (21.4)	
Junior	60 (22.8)	26 (23.9)	34 (22.1)	
Senior	86 (32.7)	46 (42.2)	40 (26.0)	
Graduate Student	16 (6.1)	0 (0.0)	16 (10.4)	
Self-identified race				
Native American only	448 (88.9)	297 (85.6)	151 (96.2)	<.001
Biracial/more than race selected	56 (11.1)	50 (14.4)	6 (3.8)	
Gender				
Male	156 (31)	119 (34.4)	37 (23.6)	0.017
Female	347 (69)	227 (65.6)	120 (76.4)	
Annual household income				
$0-9,999	158 (31.8)	147 (42.7)	11 (7.2)	<.001
$10,000-29,999	141 (28.4)	104 (30.2)	37 (24.2)	
$30,000-49,999	80 (16.1)	44 (12.8)	36 (23.5)	
$50,000-79,999	66 (13.3)	27 (7.8)	39 (25.5)	
$80,000+	52 (10.5)	22 (6.4)	30 (19.6)	
Location of home tribal nation				
Same region as university	466 (92.5)	313 (90.2)	153 (97.5)	0.002
Different region than university	37 (7.3)	34 (9.8)	3 (1.9)	
Speak tribe's language				
Yes	274 (54.5)	179 (51.7)	95 (60.5)	0.082
No	229 (45.4)	167 (48.3)	62 (39.5)	
Participate in traditional ceremonies or dances				
Yes	217 (43.1)	196 (56.5)	21 (13.5)	<.001
No	286 (56.9)	151 (43.5)	135 (86.5)	
Make cultural arts				
Yes	191 (38.0)	155 (44.9)	36 (22.9)	<.001
No	311 (62.0)	190 (55.1)	121 (77.1)	
Importance of traditional spiritual values/beliefs				
Not at all	120 (24.7)	79 (23.8)	41 (26.6)	<.001
Somewhat	166 (34.2)	82 (24.7)	84 (54.5)	
Very	200 (41.2)	171 (51.5)	29 (18.8)	

Note. Community college includes New Mexico participants only. Outside of age and years working on degree, data presented begins with *N* and then the percentage is presented in parentheses.

Microaggressions Prevalence

Overall Sample

In the past year, almost all students experienced at least one microaggression (93%; *n* = 466). The average number of past-year microaggressions was 3.12 (*SD* = 1.99; range 0 – 9). The two most common were being told the participant was "lucky" to be Indian (61.4%; *n* = 309) and being mistaken as a racial group other than Native (60.2%; *n* = 303; Table 2). The least commonly experienced microaggression was a racially-related physical attack (2.2%; *n* = 11).

Region

There was no significant difference in number of total past-year microaggressions experienced by students in NM versus OK (Table 2). However, item-level differences existed. Significantly more students in NM than OK endorsed being mistaken as a different racial group (65% vs. 50%), told the speaker was an Indian in a past life or had a grandmother who was a Cherokee princess (55% vs. 29%), followed in a store (32% vs. 12%), and treated unfairly by the police (22% vs. 8%). Conversely, significantly more students in OK than NM were told they were "lucky" to be Indian (76% vs. 55%) and asked to prove their authenticity as Native (45% vs. 25%; Table 2).

Gender

Male and female participants experienced a similar number of past-year microaggressions. More females than males were told they were "lucky" to be Indian (65% vs. 52%). For the remaining eight microaggressions, there were no significant differences by gender in past-year prevalence (Table 2).

Age

Participants aged 40 to 65 years old experienced significantly fewer past year microaggressions than those 39 and younger. This group reported two microaggressions on average, compared to three microaggressions for those 39 years and below. For individual microaggressions, those ages 18 to 25 had the highest rates of being told they were "lucky" to be Indian and being asked if they were a "real Indian." Those ages 26 to 39 years had the highest rates of being told the speaker was an Indian in a past life or had a grandmother who was a Cherokee princess, called a racist name, and experiencing unfair police treatment (Table 2).

Income

Microaggression experiences differed significantly by income, although the total number experienced was not significantly different by income (see Table 2). Participants with household incomes of $0 to $9,999 were most likely to be followed in a store and treated unfairly by the police. For example, 29% were followed in a store, compared to 8% of participants with an income of $80,000 or more. Participants with household incomes of $10,000 to $29,999 had the highest rates of being told the speaker was an Indian in a past life or had a Cherokee princess grandmother. Finally, those with the highest incomes – $80,000 per year and above – were most likely to be questioned about their authenticity. There were no significant differences by income for the other microaggressions (Table 2).

Table 2
Past-Year Prevalence of Microaggressions Distress Scale (MDS) Items, Overall and by Demographic Variables

		Location		Gender		Age			Income				
Microaggressions Distress Scale Item	Overall	NM (*n*=347)	OK (*n*=157)	Male (*n*=156)	Female (*n*=347)	18-25 (*n*=309)	26-39 (*n*=137)	40-65 (*n*=58)	0-10k (*n*=158)	10-30k (*n*=141)	30-50k (*n*=80)	50-80k (*n*=66)	80k+ (*n*=52)
Lucky to be Indian	61.4	54.9**	75.8**	52.3*	65.4*	69.3**	54.7**	35.1**	64.3	54.6	57.5	68.2	65.4
Mistaken as non-Native	60.2	64.7*	50.3*	59	60.7	62.7	59.9	48.3	62.4	68.1	53.8	43.9	61.5
Indian in past life/ Cherokee princess grandmother	46.8	55.1**	28.7**	47.4	46.4	42.4*	58.4*	42.9*	49.4*	57.9*	41.3*	36.9*	32.7*
Asked if real Indian	45.0	42.7	50.3	41.0	47.0	51.5**	38.7**	25.9**	46.8	48.2	40.0	37.9	48.1
Prove authenticity	31.0	24.9**	44.6**	32.1	30.6	35.6	25.0	20.7	24.2*	27.7*	33.8*	39.4*	48.1*
Followed in store	25.8	32.4**	11.5**	28.2	24.9	21.7	31.4	35.1	40.8**	27.0**	13.8**	12.1**	17.3**
Racist name	22.1	22.3	21.7	21.3	22.5	20.8*	29.9*	10.5*	26.1	24.1	19.0	9.1	26.9
Unfair police treatment	17.7	21.9**	8.3**	23.7	15.0	13.6*	27.0*	17.2*	29.1**	13.5**	17.5**	9.1**	7.7**
Physical attack	2.2	2.9	0.6	3.2	1.7	1.3	5.2	0	5.1	0.7	1.3	1.5	0
MDS Total (*M*, *SD*)	3.12 (1.99)	3.22 (1.99)	2.92 (1.96)	3.08 (2.01)	3.14 (1.98)	3.19 (1.86)*	3.31 (2.16)*	2.34 (2.06)*	3.48 (2.17)	3.22 (1.90)	2.78 (2.01)	2.58 (1.77)	3.08 (1.78)

Note. MDS = Microaggressions Distress Scale; *M* = mean; *SD* = standard deviation. For income, k = thousand (e.g., 30k = $30,000). Numbers presented for each MDS item represent the percentage of participants endorsing experiencing that item in the past year. Comparisons are conducted using chi-square tests, independent sample t-tests, and one-way ANOVA. The significance level was set to $p < .01$ to control for multiple comparisons.
*$p < .01$. **$p < .001$.

Cultural Involvement

The total number of past-year microaggressions did not differ by cultural involvement. At the item-level, tribal language speakers were more likely to be treated unfairly by the police (22% vs. 12%) than language non-speakers. Those who made traditional cultural arts were more likely than those who did not to be told the speaker was an Indian in a past life or had a Cherokee princess grandmother (58% vs. 40%). Those who participated in traditional dances/ceremonies were more likely than those who did not to be told the speaker was an Indian in a past life or had a Cherokee princess grandmother (57% vs. 39%) and followed in a store (32% vs. 21%). In the reverse direction, those who endorsed *not* participating in traditional ceremonies/dances had a higher prevalence of being told they were "lucky" to be Indian (67% vs. 54%). All other item-level prevalence differences were non-significant (Table 3).

Table 3
Past-Year Prevalence of Microaggressions Distress Scale (MDS) Items, Overall and by Cultural Variables

		Speak Native language		Make cultural arts		Participate in traditional ceremonies/dances	
Microaggressions Distress Scale Item	Overall	Yes (*n*=274)	No (*n*=229)	Yes (*n*=191)	No (*n*=311)	Yes (*n*=217)	No (*n*=192)
Lucky to be Indian	61.4	66.1	55.7	58.6	63.2	54.2*	67.1*
Mistaken as non-Native	60.2	61.3	58.8	64.4	57.7	61.3	59.3
Indian in past life/ Cherokee princess grandmother	46.8	49.1	44.3	58.1**	39.8**	56.9**	39.3**
Asked if real Indian	45.0	45.6	44.5	46.6	44.1	41.0	48.3
Prove authenticity	31.0	30.8	31.4	31.4	31.0	25.9	35.0
Followed in store	25.8	28.6	22.7	28.4	24.4	31.9*	21.3*
Racist name	22.1	26.5	17.0	26.8	19.0	25.6	19.6
Unfair police treatment	17.7	22.3*	12.2*	22.0	15.1	22.1	14.3
Physical attack	2.2	2.2	2.2	2.1	2.3	1.9	2.5
MDS Total (*M*, *SD*)	3.12 (1.99)	3.32 (2.11)	2.89 (1.81)	3.39 (2.06)	2.97 (1.92)	3.20 (2.02)	3.07 (1.96)

Note. MDS = Microaggressions Distress Scale; *M* = mean; *SD* = standard deviation. Numbers presented for each MDS item represent the percentage of participants endorsing experiencing that item in the past year. Comparisons by the three cultural variables are conducted using chi-square tests. The significance level was set to $p < .01$ to control for multiple comparisons.
*$p < .01$. **$p < .001$.

Microaggressions Bothered Ratings

The most common microaggressions were not necessarily the most bothersome: participants were most bothered by being physically attacked, treated unfairly by the police, and being followed in a store (Table 4). Ratings for these items corresponded to a bothered level between "some" and "a lot." Comparatively, the least bothersome microaggression was being told they were "lucky" to be Indian, which corresponded to "a little" bothered.

There were few group-level differences in bothered ratings. Unfair police treatment bothered students 40 to 65 years more than those 18 to 25 years old (M = 3.80 vs. 2.68, p = .009) and being asked whether they were a "real Indian" bothered women more than men (M = 2.10 vs. 1.53, p = .007). All other differences in bothered ratings for individual microaggressions were non-significant.

Table 4
Average Bothered Rating for Items on the Microaggressions Distress Scale

Microaggressions Distress Scale Item	Bothered Rating *M (SD)*
Physical attack (*n*=11)	2.82 (1.60)
Unfair police treatment (*n*=86)	2.87 (1.08)
Followed in store (*n*=127)	2.69 (1.24)
Racist name (*n*=111)	2.08 (1.34)
Indian in past life/Cherokee princess grandmother (*n*=234)	2.00 (1.55)
Asked if real Indian (*n*=227)	1.94 (1.45)
Prove authenticity (*n*=156)	1.90 (1.48)
Mistaken as non-Native (*n*=303)	1.34 (1.37)
Lucky to be Indian (*n*=309)	1.28 (1.47)

Note. For each item, bothered ratings are included only for those participants who endorsed experiencing that particular microaggression in the past year. The rating scale ranged from 0 to 4, with 0 = not at all and 4 = extremely bothered. Items are presented in order of bothered ratings, from highest to lowest mean rating.

DISCUSSION

Nearly all (93%) of the AI/AN students in New Mexico and Oklahoma in this study reported experiencing at least one microaggression, with an average of three over the past year. High prevalence of microaggression experiences in this study is consistent with past research in which

98% of Indigenous young adults (Jones & Galliher, 2015) and 94% of AI youth (Johnston-Goodstar & VeLure Roholt, 2017) reported experiencing microaggressions. The degree to which individuals are affected by discrimination varies. AI/AN students in this study reported feeling "a little" to "a lot" bothered for each microaggression. Jones and Galliher (2015) found that participants rated the level of their microaggression-related distress between none and mild, although all possible levels of distress were endorsed. Walters (2010) found that approximately 10 to 15% of two-spirit AI/ANs were bothered "quite a bit" or "extremely" by microaggressions. However, it is important to note that microaggression prevalence rates among a two-spirit sample may be impacted by multiple minority status. Taken together, the current study and past research suggest widespread prevalence and varied distress levels endorsed when experiencing microaggressions. It is possible that variability in microaggression prevalence and bothersome ratings across this study and other studies relate to differences in microaggressions measures or point to the subjective, flexible boundaries within the definition of microaggressions (Lilienfeld, 2017).

Most commonly, NM and OK students reported being told they were lucky to be Native and being mistaken as another racial/ethnic group. Despite the commonplace experience of being told they were lucky to be AI/AN, students reported this was the least bothersome microaggression experienced. Underlying this microaggression may be the desire for non-Native individuals to be Indigenous due to romanticization and/or the false assumption that all AI/ANs receive educational/economic benefits (Clark et al., 2014; Mihesuah, 1996). Being mistaken for another race as a common microaggression is consistent with another study of Aboriginal university students who reported "unconstrained voyeurism" in which others intrusively inquired about their ethnic identity and based judgments on phenotypical characteristics (e.g., skin color; Clark et al., 2014). This microaggression may have serious implications. For example, in one study, AI adolescents and adults living in an urban area expressed concerns about being mistaken for another race, feeling invisible, and thus preventing access to appropriate suicide prevention resources (Burrage, Gone, & Momper, 2016).

The least common microaggression experienced by all participants in the current study was being physically attacked, although this was reported as most bothersome. Additionally, participants reported distress from being followed around in a store due to being AI/AN. It is not surprising that these two microaggressions are most troubling, as these fall under the category of "microassaults," which most closely resemble overt racism intended to harm people of color (Sue et al., 2007). Future research should distinguish between microassaults and overt racism versus

microinsults and microinvalidations, and consider how they may differentially affect health, mental health, and academic outcomes. If certain microassaults are more prevalent in certain regions, systemic and institutional-level intervention and change may be necessary.

Related to geographic region, there were no differences between the OK and NM sample in how bothered students were by microaggressions. However, there were significant differences in specific type of microaggression reported by participants in the NM versus OK sample. It is possible that geographic region and/or university setting may be related to level of AI/AN inclusion and positive representations of AI/AN communities (or lack thereof) and may account for such differences. For example, in NM, AI students endorsed higher rates of being mistaken as another race than did those in OK; this may be due to the large percentage of Latino/a and Hispanic populations in NM as compared to OK. As another example, in OK, AI/AN students endorsed being asked to prove their ethnic identity; this may be due to public misperceptions that all Native peoples phenotypically look the same. Alternatively, this may be due to the stereotype that all AIs live on reservations (Mihesuah, 1996) and residence pattern mistakenly equates to Native identity. Most OK tribes do not have reservations (with the exception of one, the Osage Nation Reservation; U.S. Census Bureau, 1994, 2017) and are geographically dispersed across the state, possibly contributing to AI/AN individuals being questioned about their identity (Mihesuah, 1996).

Nadal and colleagues (2015) point to the importance of examining intersectional identities (e.g., race by gender) in the study of microaggressions. Current study results show there were differences in frequency and distress level for particular types of microaggressions experienced by AI/AN students. However, it is difficult to fully interpret all results due to intersectionality. Female participants in this study reported more distress related to their identity as AI/AN being questioned compared to males. Another study found that Indigenous females were significantly more upset by specific types of microaggressions compared to others (Jones & Galliher, 2015). The current study also found that microaggression experiences significantly varied by income level. Those with lower family incomes were more likely to be followed in a store and treated unfairly by the police compared to those with higher incomes. It is possible that students with lower income levels shop in economically disadvantaged neighborhoods with increased police presence. Students with higher income levels were more likely to have their AI/AN identity questioned, which may be motivated by stereotypes about AI/ANs and poverty and their presence in certain settings with economic advantages and less apparent visibility of AI/AN individuals. The intersection between income, race, and microaggressions is another important area of future study.

We found some significant differences in microaggression prevalence by cultural involvement, with those who spoke their tribal language or participated in traditional dances or made cultural arts more likely to experience microaggressions. It is possible that being active in traditional dances, making cultural arts, and speaking one's language signals to others that a person is AI/AN, and then they experience more microaggressions. Furthermore, AI/AN students who are active in cultural traditions and activities, related to ethnic/cultural identification, may exhibit increased awareness about how they are treated and more readily identify microaggressions they experience. Although ethnic/cultural identification was not measured in the current study, these findings may relate to past research showing stronger ethnic identification as AI/AN being associated with increased microaggression experiences (Jones & Galliher, 2015). Although we did not measure identity, engagement in cultural activities may serve as a proxy related to ethnic/cultural identification.

Limitations

One limitation was that one item from the Microaggressions Distress Scale (Walters, 2005) was missing during data collection in the OK sample due to researcher error. Thus, this item was excluded from analyses. The overall total for the Microaggression Distress Scale here has a lower possible maximum than for studies that include all items; this should be taken into account in future research and comparisons. Given that we focused on differences in prevalence of individual items and still had nine items for comparison, this omission is a minor limitation. Another limitation includes study results not generalizing to other geographic regions and tribal groups given heterogeneity in history, culture, and contemporary contexts of the more than 500 tribes in the United States. Given that this was a college sample, results may not generalize to the microaggression experiences of non-college students, although the wide age range included does increase overall generalizability. In addition, the colleges and universities included in the current study had AI/AN student enrollment percentages ranging from 4% to 22%. It is possible that AI/AN students attending post-secondary institutions with lower Native student enrollment have different microaggression experiences in a culturally isolated setting. It would also be useful to look at microaggression experiences of AI/AN students attending tribal colleges compared to other post-secondary institutions, as these settings may be more culturally supportive.

CONCLUSION AND FUTURE DIRECTIONS

To our knowledge, the current study is the first to compare microaggression prevalence and distress ratings among two AI/AN samples from different regions and by age, gender, income level, and cultural involvement. This study adds literature demonstrating widespread prevalence of discrimination against AI/ANs in two distinct regions of the United States. Microaggressions have negative implications in a variety of domains for Indigenous communities. Research on microaggressions with Indigenous communities is accumulating on associated negative health impacts, including cardiac health (Walls et al., 2015), physical pain (Chae & Walters, 2009), low self-esteem (Fryberg et al., 2008), depression symptoms (Walls et al., 2015), and an indirect relationship to suicide ideation (O'Keefe, Wingate, Cole, Hollingsworth, & Tucker, 2015). There are also significant academic implications of microaggressions for AI/AN students. Continued research is needed to understand the lived academic experiences of Indigenous students attending institutions with historical legacies of assimilation and colonization concurrently with daily discrimination inside and outside the classroom. Academic settings should be safe environments in which AI/AN students can focus on achieving goals; however, the manifestation of microaggressions may represent a form of trauma for AI/AN students (Johnston-Goodstar & VeLure Roholt, 2017) and impede success and possibly retention. Further, invisibility and stereotyped representations impact behavior (e.g., physical attack – "microassault"). One example includes initial lack of media (i.e., invisibility) and subsequent stereotyped portrayals of Indigenous peoples protecting sacred lands and fighting environmental injustice at the Dakota Access Pipeline site (DAPL; Fryberg & Eason 2017). According to Fryberg and Eason (2017, p. 554), "the DAPL protests demonstrate that bias toward Natives manifests in the minds and behaviors of individuals (e.g., the police and paramilitary forces who attacked Native protesters) and at the collective, representational levels (e.g., the media representations of Native protesters as violent warriors)."

Future research should continue to examine microaggression prevalence and distress across regions with diverse tribal representation using a culturally validated microaggressions scale to capture unique experiences of AI/AN peoples. Such research will provide important information about the unique microaggression experiences of AI/ANs and similarities/differences across geographically, historically, and culturally heterogeneous communities and also its relation to physical, mental, and spiritual health outcomes. Qualitative research is also imperative to augment quantitative results to better understand differences across individual and community level factors.

In addition, research might help identify ways in which microaggressions may be decreased from an institutional standpoint (e.g., training and evaluation for all students) or support systems that AI/AN students can utilize. For example, student organizations (at public, private, or tribal colleges) and local communities might find points of collaboration to support students who experience microaggressions. Many AI/AN student organizations hold meetings, campus events, and other gatherings that may foster a sense of belongingness, cultural connection, and social support. Overall, continued research is vital to support local grassroots and national organizations calling for an end to microaggressions and other forms of discrimination against AI/ANs and Indigenous peoples globally.

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COMMUNITY-ENGAGED AND CULTURALLY RELEVANT RESEARCH TO DEVELOP BEHAVIORAL HEALTH INTERVENTIONS WITH AMERICAN INDIANS AND ALASKA NATIVES

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Abstract: American Indians and Alaska Natives experience pervasive mental, behavioral, and physical health disparities, yet access to culturally relevant and evidenced-based programs (EBPs) are severely limited. The purpose of this research is to describe the process of conducting a rigorous and culturally sensitive research approach, which was used to inform the development of a family-based substance abuse and violence prevention program that promotes resilience. The focus of this article is on the process of this development, rather than the intervention itself. We utilize a convergent mixed-methods design with distinct tribes in the Southeast that included 436 research participants across individual, family, and focus group interviews, field notes and existing data, and a quantitative survey (n = 127). This community-engaged, culturally sensitive, and rigorous research methodology provides a road-map for developing culturally relevant interventions.

INTRODUCTION

American Indians and Alaska Natives (AI/ANs) experience pervasive, disproportionate rates of violence and health disparities. AI/ANs are reported to have a 5.5 year lower life expectancy than the general U.S. population (Indian Health Service [IHS], 2018). These populations experience serious psychological distress at one and a half times the rate of the general population, and they are at twice the risk for posttraumatic stress disorder (PTSD; American Psychological Association [APA], 2010). Moreover, in comparison with non-AI/ANs, deaths related to accidents are 2.5 times higher, while diabetes-related, alcohol-induced, and cirrhosis and chronic liver death rates are 3.2 times, 6.6 times, and 4.6 times higher than for non-AI/ANs (IHS, 2018). Finally, suicides, drug-related, and homicide-related deaths all hover around twice that of non-AI/ANs (IHS, 2018). AI/AN peoples experience a high risk for violence as well; rates of intimate partner violence (IPV) are 1.7

times higher for AI/AN women (Breiding, Chen, & Black, 2014), and rates of child maltreatment are 1.5 times higher for AI/AN children as compared with Whites (U.S. Department of Health and Human Services, 2013). Given the disparities related to violence and substance abuse in particular, the overarching goal of this research was to identify and translate culturally specific risk and protective factors across ecological levels as they related to the primary health disparities of substance abuse, violence, and associated mental health disparities to develop behavioral health interventions.

In the United States, there are 573 federally recognized tribes (Bureau of Indian Affairs, 2014), more than 60 state-recognized tribes (National Conference of State Legislatures, 2015), and more than 400 tribes outside the federal or state jurisdictions (U.S. Government Accountability Office, 2012). Additionally, some people may identify as AI/AN and not have a tribal affiliation. Depending on their recognition status, tribes have unique needs and opportunities. Federally recognized tribes receive health care through IHS as part of treaty agreements, whereas state recognized tribes do not receive this benefit and may rely more on state funding. Thus, distinct trust relationships, based on treaties with sovereign federally recognized tribes, in addition to the high health disparities experienced by AI/AN peoples, warrants examining AI/AN disparities separately from other ethnic minorities (U.S. Commission on Civil Rights, 2004).

Acknowledging the need for more evidenced-based programs (EBPs), all 50 states now incorporate what is often a mandate to allocate resources to EBPs, ranging from programs in the criminal justice system to family services arenas (National Conference of State Legislatures, 2018). Tribal members from the over 60 state-recognized tribes, those from unacknowledged tribes, and the over four million tribal members residing in urban areas (which represent the majority of the U.S. AI/AN population) are often served by these state-funded and community-based agencies (Urban Indian Health Commission, 2007). Yet, the AI/AN communities served by these programs are often overlooked, and thus, receive services that may be evidence-based, but are not culturally relevant or vice versa. This is problematic in that some EBPs that are not culturally specific have actually been found to worsen outcomes, such as substance abuse, among AI/ANs, rather than improve them as intended (Dixon et al., 2007). Yet, some states, such as Tennessee, are working toward 100% of funding for juvenile justice being allocated for EBPs (National Conference of State Legislatures, 2018). A lack of EBPs, in general, contributes to the problem of requiring EBPs where no such empirically-based programs have been developed, but EBPs that are culturally relevant for AI/ANs are even scarcer. Not only is it ethically important to provide culturally relevant and empirically-

informed interventions for diverse peoples (Moran & May, 2015), many states require that a certain percentage of funding be allocated to such EBPs (Pew-MacArthur Results First Initiative, 2017). If AI/AN people lack access to culturally relevant EBPs, they may receive culturally incongruent EBPs or interventions that are culturally relevant but ineffective or even harmful (Dixon et al., 2007). Thus, despite the tremendous need for solutions to the aforementioned disparities, AI/AN families lack access to programs that are culturally relevant and evidenced-based to reduce violence and unwanted health outcomes (Gone & Trimble, 2012).

Interventions for AI/AN peoples have tended to be imposed from a non-Native perspective, and in some cases, such interventions have been ineffective and even harmful to AI/AN peoples (Burnette & Figley, 2016; Gone & Trimble, 2012; Urban Indian Health Institute, 2014). For example, Dixon et al. (2007) found that drug use *increased* among AI/AN youth after a non-targeted, multicultural substance abuse prevention and intervention program. This is consistent with other findings showing that interventions targeted to a specific cultural group are four times more effective than interventions provided to groups from a variety of cultural backgrounds (Griner & Smith, 2006). Moreover, the interventions that are available tend to use a deficits-based approach that ignore the profound resilience and heterogeneity of AI/AN peoples (Burnette & Sanders, 2017; Yuan, Belcourt-Dittloff, Schultz, Packard, & Duran, 2014). Finally, Western EBPs, with the priority exclusively on empirical evidence, may negate some AI/AN holistic and multifaceted ways of "knowing," which can include ancestral knowledge, spirituality, and intergenerational transmission of lifeways and life practices. This research attempts to be part of a decolonizing process to include these multifaceted ways of knowing by extensive inclusion of community voice throughout the research process.

The Framework of Historical Oppression, Resilience, and Transcendence

To fill the gap in knowledge on how to develop evidenced-based and culturally relevant interventions to address substance abuse, violence, and associated disparities, this article will describe a rigorous and culturally sensitive research approach to inform localized, responsible, and ethical interventions for AI/AN peoples. We integrate Burnette, Sanders, Butcher, and Rand's (2014) toolkit for culturally sensitive and ethical research with AI/AN communities (see Table 1) with an application of Whitbeck's (2006) five-stage culturally grounded research approach to develop EBPs addressing the aforementioned disparities (see Figure 1). The *specific strategies from the toolkit will be italicized throughout the article where they have been infused*, and the definition of each strategy is displayed in Table 1. This toolkit was derived from interviews with

Indigenous and non-Indigenous scholars of the United States each with 15-37 years of experience working with tribal communities (Burnette et al., 2014). Recommendations were gleaned through qualitative analysis, which then informed several studies that utilized this toolkit in framing and approaching culturally sensitive research with tribal communities.

Table 1
Toolkit of Strategies for Culturally Sensitive and Ethical Research with AI/AN Communities

Strategy for Researcher(s)	Description
Become Educated	Read about both specific and broad AI/AN history. Learn from AI/AN communities, colleagues, and insiders.
Work with a Cultural Insider	This insider will lead the way to working within culturally appropriate protocols and nuances of the AI/AN community.
Get Invited	Collaborate with key insiders and become invited because of demonstrated skills and competence.
Exhibit Cultural Humility	Approach work with AI/AN communities with a positive intent, authenticity, and respect for the people.
Be Transparent	Be completely open and honest about research intentions and resources available to do this work.
Spend Time in the Community	Take the time to get to know AI/AN community members before beginning the study.
Collaborate	Become embedded in the community and develop a network of people who conduct culturally sound research.
Listen	Attend to AI/AN community members who are experts on their own community.
Build a Positive Reputation	Build a reputation for doing worthwhile research.
Commit Long Term	Work with AI/AN communities long term to foster lasting change and collaboration.
Use a Memorandum of Understanding	Outline important guidelines such as who owns the data, how research findings are published, how researchers will follow-up with the community, etc.
Use a Cultural Reader	A cultural reader reviews reports and prevents inadvertent harmful publishing.
Go the Distance	Travel to AI/AN communities, which might be a long distance away.
Demonstrate Patience	Understand that relationship, trust-building, and the research process take time.
Enable Self-Determination	Incorporate the tribe's input and participation throughout the research design and implementation.
Use a Tribal Perspective	Avoid imposing a Western perspective.
Use Appropriate Methodology	Use culturally congruent community-based, qualitative, or quantitative methods.
Reinforce Cultural Strengths	Build on the many strengths within AI/AN communities by using a community-based participatory method, and incorporating traditions in research such as storytelling, family, attention to land and the spirit, and other strengths already present.
Honor Confidentiality	Consider community, family, and individual confidentiality and how to ensure it, especially in tight-knit communities.

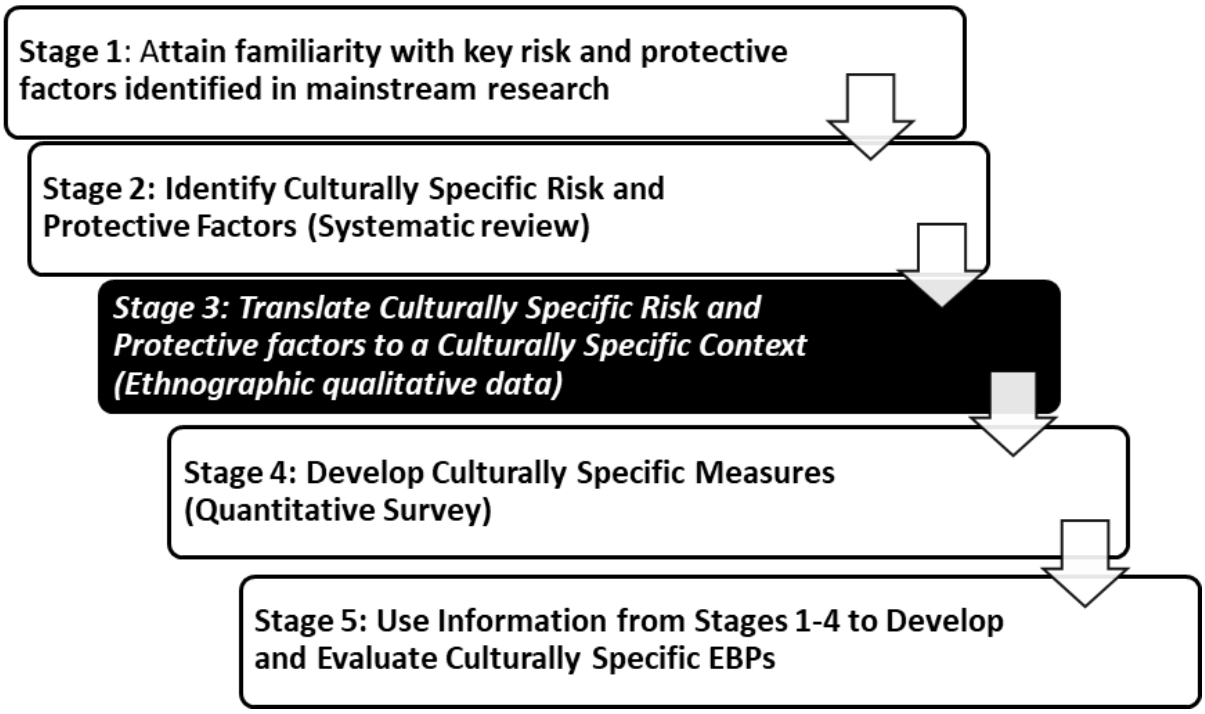
continued on next page

Table 1 Continued
Toolkit of Strategies for Culturally Sensitive and Ethical Research with AI/AN Communities

Strategy for Researcher(s)	Description
Advocate	Communicate the needs and rights of AI/AN peoples to decision-making bodies.
Reciprocate and Give Back	Develop programs, report results, provide compensation, and enable the AI/AN community to determine follow-up.
Allow for Fluidity and Flexibility	Balance rigor with culturally congruent research practices. Adapt the research process to honor the community's rhythm and traditions. Publishing institutions can support this flexibility as good research practice.
Develop an Infrastructure	Build a network with AI/AN and non-AI/AN researchers and community members to centralize and facilitate streamlined research that is useful for both AI/AN communities and academia.
Invest Resources	Funding sources can foster culturally congruent research by allowing for traditional customs, such as feeding participants or offering gifts to elders, through grants that can allocate funds to AI/AN communities, colleges, and infrastructure.

Note. Table has been reprinted with permission from Burnette et al. (2014). Strategy is listed in the first column, with the description of each strategy detailed on the second column.

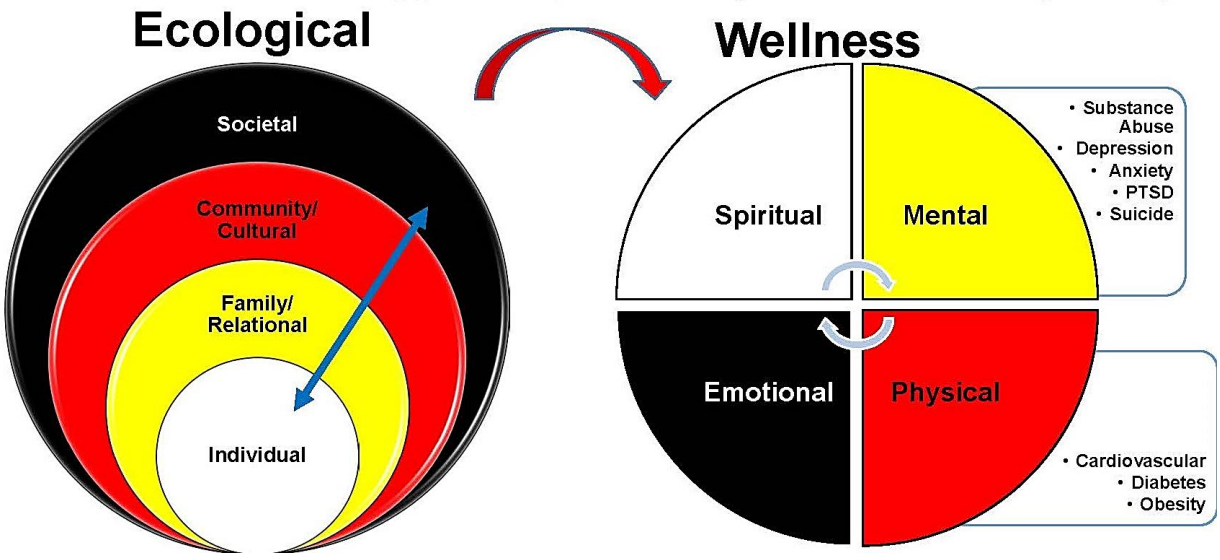
Figure 1. The Five-Stage Process to Develop Culturally Specific EBPs with AI/AN peoples



Note. Whitbeck's (2006) five stages are described with the focus of this article, Stage 3, emphasized.

This toolkit informed the studies that led to the development of a major theoretical contribution (the Framework of Historical Oppression, Resilience, and Transcendence [FHORT]), which helps explain the lived experiences of AI/ANs and approaches health equity in a culturally relevant way (Burnette et al., 2014; Burnette & Figley, 2017). The concept of *historical oppression* captures the chronic, pervasive, and intergenerational experiences of oppression that Indigenous peoples were exposed to throughout colonization and into the present, which, over time, may be normalised, imposed, and internalised into peoples' daily lives (including individuals, families, and communities; Burnette & Figley, 2017). It encompasses historical trauma and focuses on *both* historical *and* contemporary forms of oppression (i.e., proximal stressors) which tend to perpetuate oppression, such as higher levels of stress, lower incomes, and health disparities (Burnette & Figley, 2017). Figure 2 depicts this framework, which highlights interrelated risk and protective factors across ecological levels to predict wellness. The concept of wellness integrates social, mental, emotional, and physical health, and relates to disparities in behavioral and mental health (e.g., substance abuse, PTSD, and depression) and physical health (e.g., diabetes, obesity; Burnette & Figley, 2017). According to the FHORT, it is the interaction, accumulation, interconnections, and balance of risk factors (i.e., those that exacerbate problems) and protective factors (i.e., those that buffer negative outcomes or promote positive outcomes) across multiple levels (e.g., individual

Figure 2. Framework of Historical Oppression, Resilience, and Transcendence



Note. This research identified culturally relevant risk and protective factors related to substance abuse, violence, and associated mental health disparities. Yet, this framework may be applied to other aspects of wellness and health.

family/relational, community/cultural, societal) that explain whether a person experiences wellness (balance among the mind, body, spirit, and relations with others and the environment) after experiencing adversity. Resilience describes recovering well and bouncing back after adversity, whereas transcendence encompasses reaching new meaning and heightened quality of life (Burnette & Figley, 2017).

The Process of Culturally Adapting and Developing EBPs

Whitbeck's (2006) five stage process for developing culturally relevant EBPs includes (Figure 1): 1) attaining familiarity with key risk and protective factors in mainstream research; 2) the identification of culturally specific risk and protective factors; 3) the translation of culturally specific risk and protective factors to a culturally specific context; 4) developing culturally specific measures; and 5) using information from Stages 1-4 to develop and evaluate culturally specific EBPs.

Because Stages 1 and 2 can be completed through systematic reviews of risk and protective factors in mainstream and AI/AN contexts, respectively, we focus this article specifically on Stage 3 of the process: The translation of culturally specific risk and protective factors to a culturally specific context. This stage involves synthesizing extant research and the specific risk and protective factors within a given context to address the key factors that may drive inequities or buffer against them. This stage is the first stage that may provide significant complexity for researchers along with variability in the research approaches to identify factors. Thus, we describe our approach to Stage 3: A critical ethnography that is grounded in the voices of AI/AN peoples and a culturally congruent theoretical framework. The focus of this article is on the process of this particular study, rather than the outcomes. To make this exemplar more concrete, we will also provide some content related to study outcomes. This approach can serve as a model for use by other researchers to develop the highly needed culturally relevant EBPs to address AI/AN social and health inequities. A lot of emphasis is placed on empirically-informed interventions, yet ways to operationalize the infusion of empirical information into clinical practice is less delineated. This works provides a tangible process of informing and infusing empirical research into clinical interventions. The focus now turns to our goal of identifying and translating the culturally specific risk and protective factors across ecological levels as they related to the primary health disparities of substance abuse, violence, and associated mental health disparities.

According to Whitbeck (2006), Stage 1 begins with attaining a familiarity with key risk and protective factors identified in the mainstream research. This can be completed by doing a literature or systematic review focused on the outcome(s) of interest. The second stage involves the identification of culturally specific risk and protective factors. For the purpose of this research, Stage 2 was completed through a systematic review of culturally relevant risk and protective factors for mental health disparities and substance abuse across ecological levels among AI/AN youth, using an ecological framework of wellness (Burnette & Figley, 2016). Stage 3 (the focus of this article) identifies and translates risk and protective factors to a specific cultural context (e.g., specific tribes) through community-engaged partnerships with AI/AN community members. For context, Stage 4 focuses on developing measures of risk and protective factors specific to one's culture. Although details of this stage are outside the scope of this article and are described elsewhere, this process resulted in using Stage 3 results to create the culturally grounded scales of Historical Oppression and The Family Resilience Inventory (Burnette et al., In Press; Burnette, Boel-Studt, et al., 2019), which are described elsewhere. Finally, Stage 5 uses information in Stages 1-4 to develop and evaluate a culturally specific EBP, which is currently underway.

We integrate Burnette et al.'s (2014) Toolkit for Culturally Sensitive and Ethical Research (Table 1) and apply Whitbeck's (2006) Five-Stage theoretical framework (Figure 1) to develop evidenced-based culturally specific intervention programs for AI/AN peoples (Whitbeck, 2006). In addition to the already described adaptation process, Whitbeck (2006) outlines guiding assumptions for research partnerships with AI/AN communities, indicating the importance of developing programs for distinct tribal nations (i.e., culturally specific). Whitbeck (2006) also affirms that AI/AN communities have all the knowledge needed to socialize healthy children and families and that cultural practices and knowledge must inform social science knowledge (Whitbeck, 2006). Finally, the core of developing programs is the identification of key culturally specific risk and protective factors, which operate independently and in interaction with the key risk and protective factors of the general population (Whitbeck, 2006).

Although the need to reduce substance use, mental health, and violence disparities among AI/AN populations is urgent, there is a critical gap in knowledge of culturally specific risk and protective factors that could be integrated into social work interventions. If risk and protective factors lack cultural relevancy, it is unlikely that they will lead to EBPs, because they may not be well-matched to the communities with whom they are used. Indeed, there is an absence of a localized understanding of culturally specific risk and protective factors relating to AI/AN

populations (Fletcher, 2010), especially those from the Southeast, in contrast to tribes residing in the Southwest or Northern Plains (Burnette & Figley, 2016). Research consistently documents variability in risk and protective factors, depending on a given culture and context (Burnette & Figley, 2016). Thus, the aim of this research was to identify culturally specific risk *and* protective factors that exacerbate and buffer against the aforementioned health disparities with particular focus on substance abuse and violence.

METHODS

The Identification and Translation of Culturally Specific Factors (Stage 3)

This research used a convergent mixed-methods design, which merges findings from both quantitative and qualitative data (Creswell, 2015). The quantitative component took the form of a survey created from preliminary qualitative research. An in-depth, critical ethnographic approach was used to uncover the essential risk and protective factors related to intimate partner violence (IPV) and substance use. A critical ethnographic inquiry incorporates critical theory in its investigation by attending to power relationships among dominant and marginalized groups (Carspecken, 1996). With an overriding goal of generating understanding and eliminating oppression experienced by marginalized groups, critical ethnographies are well-suited to eliminate violence and health disparities experienced by AI/AN populations (Carspecken, 1996). Moreover, critical ethnographies aim to highlight participants' human agency, resilience, and resistance to historical oppression and subjugation (Quantz, 1992), all of which are central to reducing AI/AN IPV and health disparities. Critical ethnographies triangulate many forms of data including interviews, existing data, and direct observation (Carspecken, 1996).

Research Design: Data Collection and Analysis

Carspecken's (1996) five stage approach to critical ethnography served as a framework for data collection and analysis and has been found to be *a culturally appropriate methodology* (see Table 1), being used throughout the decade of preliminary research with the focal tribes (Burnette & Figley, 2017). In this method, data collection and analysis occur simultaneously with each informing the other; these components are therefore woven together and presented according to their respective research stage. Carspecken's (1996) approach to critical ethnography is rigorous (Levinson et al., 2015), particularly due to the validity requirements throughout all components of

research (see Table 2). Because the focus of this research is on the process rather than the specific methodology, which is described elsewhere (Burnette et al., 2014), we have streamlined the description of the method for the reader.

Table 2
Validity Requirements by Stage of Research

1.	Members Checks
2.	Peer Debriefings
3.	Multiple Recording Devices
4.	Prolonged Engagement
5.	Low Inference Vocabulary
6.	Flexible Observation Schedule
7.	Negative Case Analysis
8.	Expert Checking Coding
9.	Checking Findings with Data
10.	Use Data Analysis Software NVivo (Audit Trail)
11.	Consistency Checks
12.	Encourage Explanation By Participants
13.	Interview Repeated Times
14.	Adhere to Method in Stages 1-3
15.	Close Match Between Reconstruction and Participant Responses
16.	Match of Results and Existing Research

Setting and Samples

This study gained verbal consent from participants (upon recommendation of cultural liaisons and tribal personnel) after IRB approval was obtained from the first author's university, along with tribal council approvals from each tribe for study activities. To enable an understanding of distinct aspects as well as universal themes across AI/AN populations, two tribes were included in this research process: one tribe is federally recognized and the other is not. Tribal recognition may substantially affect opportunities, needs, resources, outcomes, and community infrastructure. For the protection of community identities, the names of these tribes are kept confidential. Both tribes are located in the Southeastern United States and have enrolled tribal populations of over 10,000 members.

Tribe A is a federally recognized tribe inland from the Gulf of Mexico. It is characterized by economic development, with tribal schools, health care services, as well as law enforcement, emergency and land management, and social services facilities. Tribe B is a state recognized tribe located in proximity to water and the Gulf Coast. Tribe B has more constrained economic resources

and tribal infrastructure for its members. Tribe B offers employment, educational, and other individual programs for youth and tribal members. As indicated by the ethnographic methodology (Carspecken, 1996), this research included multiple forms of data (i.e., existing data, qualitative data, and quantitative survey). Each form of data is described in its respective section of the data collection and analysis phases with summary information depicted in.

Reflexivity

Crucial to this methodology is the researcher's ability to be self-aware, forthright, and intentional about her/his position and motivation for doing the work (i.e., reflexivity). This is an important component of qualitative research, more generally (Carspecken, 1996). Toward this aim, the first author is a Caucasian female academic who has *committed long-term* (see Table 1) to working with the focal tribes and has grounded her work in a decade of commitments and relationships with the focal tribes (Burnette et al., 2014; Burnette & Figley, 2017). Prior to conducting research with AI/AN communities, she completed a study on how to conduct ethical and culturally sensitive research, which has guided all of the research in which she has been involved (Burnette et al., 2014). This process has helped her to understand her distinct positionality and its implications for work with AI/AN peoples. Since then, she has had the opportunity to present on this topic and *advocate* (Table 1) for culturally sensitive and community-engaged research with the National Congress of American Indians. She was initially *invited* (Table 1) by an AI/AN colleague to work with Tribe A on violence against women. After completing research on this topic, she *spent time in the communities* building long-term and *reciprocal* relationships and partnerships with both tribes (Table 1). The present study *reinforces cultural strengths* (Table 1) and arose out of findings from preliminary research showing that risk and protective factors are culturally specific and that family and cultural systems are important to recovery from and transcendence of historical oppression, concomitant violence, and substance use disparities (see Burnette & Figley, 2016 for a synthesis).

Data Collection and Analysis

Carspecken's (1996) methodology begins with analyzing existing data that is collected prior to the researcher interacting with the participants through interviews. This enables the triangulation (comparing all forms of data to ensure they implicate the same results and

interpretations) of such data with more interactive, interview data that is collected later in the research process. Data sources included the first author's field notes with in-depth field and participant observations (n = 58). It also included analysis of existing data records, such as behavioral health intake forms for Tribe A (n = 202) and a needs assessment for Tribe B from tribal social service agencies (n = 293).

Participant observation data collection varied by context and was *fluid and flexible* to be congruent with specific research contexts (Table 1; Burnette et al., 2014). For instance, in Tribe A's context, video-taped participant observation sessions of the batterer education program (BEP)—a program that is court-ordered for perpetrators of IPV—was conducted. These programs were not offered in Tribe B's context. The 11 BEP sessions that made up the participant observation lasted one to two hours.

Along with BEP sessions, field observations were recorded in the form of field notes (n = 58) across both tribes. Field notes, or simple descriptions of informal conversations and interactions with key informants and community members, were provided to two colleagues for review and to ensure fidelity to the methodology. Debriefing with colleagues occurred throughout the data collection and analysis process. Because this was the first author's second study focusing on IPV with Tribe A, and participant observation had previously been collected, the sample for Tribe A's field observations was smaller (i.e., n = 15, whereas 43 field observations were collected for Tribe B). Thus, more observations were collected with Tribe B to balance out the earlier BEP data of Tribe A and the prior research with that tribe.

The second part of this process involved gathering and analyzing existing data, which took the following two distinct, but related forms in each respective tribe. Tribe A provided access to secondary data in the form of psychosocial intake forms from the tribal behavioral health clinic. We made a concerted effort to *build a research infrastructure* and *reciprocate and give back* by training, *collaborating with,* and hiring tribal members (Table 1). A tribal member was hired to de-identify 202 randomly selected intake forms between the years 2001-2014. Under the supervision of the first author, three Masters of Social Work (MSW) students with strong interest in AI/AN communities assisted with creating a data set from Tribe A's existing records. This process involved students a) entering information into Microsoft Excel, b) creating a dataset and codebook of the data, c) entering the data into Excel, and d) importing the data-set into SPSS for analysis. Although Tribe B did not have existing data from agencies available, they conducted a needs assessment, which was sent out to all tribal members. A total of 293 tribal members

completed and returned the questionnaire, and the summary data were available for the purpose of this study. The primary record enabled the first author to gain awareness of what appeared to be the predominant challenges tribal members' experience (i.e., health disparities and violence).

Thematic analysis was utilized to analyze all qualitative data collected in this critical ethnography. All field notes, participant observation sessions, and interview data followed the same analysis process. This process includes: a) reading and listening to audio-recordings and transcriptions, two to four times, to understand the meaning holistically; b) line-by-line coding, from which a hierarchical scheme of codes and sub-codes were created; and c) in-depth identification of explicit and implicit meaning of data (for an in-depth description of this analysis, see Burnette et al., 2014).

Due to the breadth of data collected for this ethnography, *collaborative* (Table 1) team-based qualitative data analysis methods were utilized (Guest & MacQueen, 2008). Following Guest and MacQueen's (2008) recommendations, after all qualitative data (i.e., field notes/observations, interviews, observation sessions) was collected, the interviews were professionally transcribed and transferred to two separate NVivo[1] files—one for Tribe A and one for Tribe B. Data collection occurred concurrently, beginning with Tribe A and followed by Tribe B. As such, data analysis followed this same pattern. Once the data was transferred to NVivo, the first author created a codebook and analyzed a number of interview transcriptions to begin the open coding process and create an exhaustive list of preliminary codes with definitions. A hierarchical coding scheme was created, focusing on cultural, community, family, couple, and individual resilience with risk and protective factors listed within each code. All codes were organized within this overarching coding scheme.

Data analysis teams were composed of doctoral students, two of whom were AI/AN (one from each tribe) and two of whom were non-AI/AN. The tribal doctoral students each came from the tribal backgrounds under investigation—with one having resided on Tribe A's reservation and the other being a member of Tribe B. *Collaborating by including tribal members* in data collection and analysis increases cultural sensitivity and accurate interpretations of the data. The first author developed coding schemes in consultation with team members, and all team members reviewed coding schemes for cultural appropriateness. Any suggestions were integrated into the final coding scheme. As part of their training, each team member reviewed numerous background readings,

[1] A qualitative data analysis software program.

underwent training in the use of the software NVivo (2012) from the first author, and training on the data analysis method itself. These trainings occurred in groups and were individualized based on the background and familiarity with the research method to ensure everyone had a solid understanding. Foci of the training included sharing examples of transcripts that had been coded by the first author, going through the examples and explaining why they were coded the way they were, answering questions, and explicating the data analysis framework in relation to the data. After each team member coded one to two transcripts, they were reviewed by the first author, who provided feedback and direction.

Team members completed analysis on a timeline in which multiple team members reviewed transcripts for increased trustworthiness of findings. Likewise, because at least two team members were coding simultaneously, they were able to utilize peer support for any questions. Each team member recorded any questions, codes added, and communication on a coding log that was shared among the team, which served as an audit trail. The analysis team met bi-weekly throughout data analysis to discuss interpretations, questions, and engage in dialogic discussion of results. Finally, Cohen's Kappa coefficients were calculated with each team member in NVivo to ensure interrater reliability (McHugh, 2012). This coefficient was examined at the start of data analysis and throughout the process to ensure consistent data analysis. If the coefficient was ever lower than what is considered strong or above (i.e., .80 or higher), a closer look at interrater reliability would have been made. However, the vast majority of statistics showed extremely high Kappa coefficients (.90 or above).

Qualitative Sampling

In total, 436 participants were part of the qualitative portion of the study in the forms of individually focused interviews, family interviews, and focus groups, with 228 total participants from Tribe A and 208 participants from Tribe B. Some participants completed more than one type of interview, which adds to study rigor (Carspecken, 1996). A total of 254 participants completed individually-focused interviews (n = 145 Tribe A; n = 109 Tribe B), 217 participated in 27 focus groups (n = 113 Tribe A participants across 14 focus groups; n = 104 Tribe B participants across 13 focus groups), and 163 participants completed family interviews (n = 80 Tribe A participants across 34 family interviews; n = 83 Tribe B participants across 30 family interviews).

Because the aim was to identify culturally specific risk and protective factors that were *culturally relevant to all tribal members*, these broad samples were made up of subsamples of

elders, adults, professionals, and youth within each of the aforementioned types of interviews. Regarding the different categories of participants, 70 practitioners working with survivors of violence participated in the study (*n* = 47 Tribe A*; n* = 23 Tribe B), 105 elders[2] (aged 55 and above) participated (*n* = 44 Tribe A*; n* = 61 Tribe B), 147 adults (ages 24-54) participated (*n* = 76 Tribe A*; n* = 71 Tribe B), and 114 youth (ages 11-23) participated (*n* = 61 Tribe A*; n* = 53 Tribe B). The inclusion of subsamples ensures an accurate depiction of risk and protective factors across various cohorts of tribal participants.

Interview data involved in-depth focus groups, along with family and individually-focused interviews, all of which followed semi-structured interview guides (Carspecken, 1996). Recruitment included posting fliers on social media and tribal websites and in newsletters and tribal agencies. Word-of-mouth was a main recruitment method. Finally, focus groups provided the opportunity for participants to decide to participate in subsequent parts of the study (i.e., interviews), and this method resulted in many interview participants. Consistent with preliminary research with Tribe A (Burnette, 2015), to *give back* to tribal members (Table 1), participants received $20 gift cards for participation in individual interviews and focus groups, whereas, families received a $60 gift card for family interviews.

Focus groups and interviews followed a semi-structured guide to ascertain answers to research questions, which were derived from our research aim of identifying culturally specific risk and protective factors across ecological levels related to substance abuse, violence, and associated health and mental health disparities. Where participants consented, video and audio-recorded focus groups and interviews were transcribed by a professional transcription company. All except two participants agreed to audio-recording, and extensive notes documented these interviews. Because they are a *culturally sensitive methodology* (Table 1) recommended for use in critical methods (Carspecken, 1996), life history interviews made up individually-focused interviews. Practitioners who worked with survivors of violence could choose to participate in the life history component of the interviews. *To give back to participants,* a copy of their life history interview was given to participants. Wording targeted the fifth-grade comprehension level. On average, most interviews lasted about an hour; specifically, individual interviews were 63.49 minutes, family interviews were 69.69 minutes, and focus groups were 57.18 minutes. The total interview time for each participant (many participated in more than one) was 88.99 minutes.

[2] We use the term “elders” to be culturally congruent with the terminology used by tribal members.

In the final stages of this methodology, results were compared to uncover universal and distinct themes, deepening the understanding of IPV, substance abuse, as well as risk and protective factors associated with mental health. This occurred qualitatively and quantitatively. First, qualitative themes were compared across tribes, identifying universal and context specific themes. To do this, the hierarchical coding schemes were exported to Excel where the number of sources (i.e., interviews) and times the themes were coded were examined across tribes. Next, a quantitative survey was created from the qualitative themes, using existing scales (where culturally appropriate and available) and creating scales based on qualitative findings. This was a systematic process and was documented using the Excel hierarchy of themes with respective scales measuring each overarching theme. Although the frequency with which overarching themes appeared varied across tribes, the overarching themes themselves were consistent, and thus, the same survey was used for comparison across tribes. Table 3 depicts a synthesis of the overarching themes across ecological levels that were uncovered. Culturally specific scales were created for this project, including the Family Resilience Inventory (Burnette, Renner, et al., 2019), The Historical Oppression Scale (Burnette et al., In Press), as well as items inquiring about community needs and services, and satisfaction with partner and parenting.

Participants in the qualitative portion of the study were invited to participate in the online survey, which was entered into the online survey program, Qualtrics (2014). The purpose of the follow up survey was to quantitatively examine the relationships identified between risk and protective factors. To *give back* and compensate people for their valuable time, participants were entered into a drawing for $50 gift cards and approximately one in two (n = 70, 55%) participants received a gift card. Participants had the option to complete the anonymous survey online themselves, have someone assist them, complete the survey as a hard copy (i.e., mailed and returned in a self-addressed envelope), or have the survey read over the phone to them while a research team member entered their answers. All of these methods were employed. Based on the totality of results, similarities and differences among contextual factors and results were examined.

Quantitative Sampling

A total of 127 participants from Tribe A and Tribe B completed the quantitative online survey. Participant names were only supplied for the purpose of participant compensation and kept separately from data. This survey was open to any Tribe A and Tribe B members over the age of 18; a total of 161 participants began the survey and 79% completed the survey (n = 127). The final

sample of 127 had a total of 80 Tribe A and 47 Tribe B members. Research results and analysis from Tribe A were compared with those of Tribe B. Likewise, results were compared qualitatively across different samples, including professionals, community members (youth and adults), elders, and families. Because this paper focuses on the qualitative portion of the study, further details of the quantitative portion are beyond the scope of this article. As another means of *giving back* to tribal members (Table 1), a summary of results was presented on at least 10 occasions to the tribal chiefs, each tribal council, heads of key tribal agencies (e.g., domestic violence services and behavioral health), tribal community group(s), and to each participant of the study. A brochure and training has been developed to disseminate information in an applicable way for professionals and community members of the focal tribes and tribes in the Southeast, as well as cross-nationally.

Table 3
Emergent Risk and Protective Factors Across the Ecological Levels of the FHORT

Community/Cultural Resilience		**Family Resilience**		**Individual and Relational Resilience**	
Protective Factors	Risk Factors	Protective Factors	Risk Factors	Protective Factors	Risk Factors
Community Resilience		**Family Resilience**		**Individual Resilience**	
Community resources	Organizational risk factors	Extended family support	Substance abuse	Healthy living	Substance use/ mental health and physical health
Community-based initiatives	School risk factors	Accountability discipline	Lack of accountability and discipline	Determination, self-sufficiency, self-advocacy	Teenage pregnancy
Tight-knit communities	Poverty and unemployment	Boundaries	Poor boundaries	Talents/goals/ aspirations	Low socioeconomic status
Pro-social activities	Community fragmentation	Closeness	Lack of closeness	Commitment to education/growth	Dysfunctional coping
Cultural Resilience		Commitment	Lack of commitment	Faith	Daily hassles
Enculturation	HO	Communication	Poor communication	Humor, pride, identity	Adverse childhood events
Healing through culture	Forms of HO	Nonviolent norms	Family violence	**Relational Resilience**	
Decolonization	Factors that per-petuate oppression	Members' working together	Fragmentation, conflict/discord	Commitment	Lack of relationships skills
Ethnic pride and identity	Consequences of HO: 1. Substance abuse/violence	Support/affection	Lack of affection	Constructive communication	Jealousy/infidelity
Traditions	2. Distrust/losses	Time together	Absent parents/ lack of supervision	Mutual respect/ partner support	Lack of suitable partners
Tribal values and beliefs	3. Internalized oppression	Instilling values	Instability	Relationship boundaries	IPV

Note. Emergent risk and protective factors informed the core components that were focal to the intervention development. HO=Historical Oppression; IPV=Intimate Partner Violence.

Rigor and Cultural Sensitivity for Qualitative Research

The following standards of rigor are outlined by this specific methodology. Peer debriefing occurred weekly with a colleague during data analysis. Every step of creating the data-set from existing data was saved and documented, creating an audit trail, which is a qualitative term elucidating how and when decisions were made throughout data collection and analysis process. Multiple recording devices were used to create the primary record, including video, audio, and written transcription. The first author has also engaged in a decade of research with Tribe A, and six years with Tribe B—thus fulfilling the requirement of prolonged engagement in the field. A simple and understandable vocabulary was used for all field notes. Finally, a flexible observation schedule was used. Likewise, regarding cultural sensitivity, following Burnette et al.'s (2014) research recommendations, the first author worked with multiple *cultural insiders* from each tribe, including *hiring two tribal research assistants* from both Tribe A and Tribe B, who assisted with data collection and analysis (Table 1). Bi-weekly research team meetings included negative case analysis, which involved discussing and explicating why some data did not fit overarching interpretations. Likewise, one tribal member was collecting data concurrently with this project and had other experiences to triangulate with study participants. An outside expert familiar with the methodology reviewed all coding, including coding hierarchy, ensuring fidelity to the methodology.

Data results were compared with existing research for comparison. Finally, multiple coders analyzed the majority of data (74%). In fact, 66% of Tribe A's data and 86% of Tribe B's data was analyzed by two or more coders. Thus, resultant interpretations were triangulated across multiple expert coders, including those from the given tribe(s). For *cultural sensitivity*, a member of each tribe was on the data analysis team and member checks were completed with each available participant to ensure accurate interpretations. To ensure everyone was involved, numerous attempts were made to follow-up with participants. A protocol and script were created for member-checking to ensure consistency in the process. All participants were contacted by either phone or email or both. Among Tribe A's participants, attempts were made to contact the 165 participants with phone numbers on file and attempts were made to contact 132 participants by email. Among Tribe B's participants, attempts were made to contact the 208 participants with phone numbers on file and attempts were made to contact 90 participants by email. Attempts were made by each method at least twice.

Member check information included the results summary, with themes and explanations of themes, interview transcripts (for individual interviews), information about follow-up, and opportunities to discuss or change any information in the transcript or results. To protect confidentiality, group interview transcripts were not shared with participants, but the descriptive summary of results was. Some participants elaborated on findings, yet no participants disagreed with results or interpretations. Consistency checks were completed by the first author during the interviews. She encouraged participants' explanations of their perspectives. Finally, many participants were interviewed multiple times; specifically 72 members of Tribe A (31.6%) and 50 members of Tribe B (24%) were interviewed two to three times.

As stated, Stage 4 has been completed, which involved developing the culturally specific measures, the Family Resilience Inventory (Burnette, Renner, et al., 2019), and the Historical Oppression Scale (2018). We have also completed the development of the intervention through community-based participatory research and a community advisory board. The modified intervention is currently being piloted across two tribal communities. Thus, this method for intervention development has resulted in a precise and culturally relevant intervention that can be tested for efficacy, effectiveness, and broader dissemination and application.

DISCUSSION

This research described community-engaged, culturally sensitive, and in-depth qualitative research, which informs culturally relevant intervention development to address health disparities and violence. Numerous aspects of this research process were critical in uncovering meaningful and culturally relevant outcomes. First, choosing a *culturally appropriate methodology* is crucial to gaining meaningful data and results (Table 1). The critical ethnography chosen was recommended and used with the tribes by the first author for many years. This methodology incorporated several aspects important to working with peoples who have been chronically oppressed, such as an attention to power dynamics. It also includes immersion in the field, which offsets tendencies to misinterpret information from groups which may differ from researchers'. Burnette et al.'s (2014) recommended tools for cultural sensitivity and community engagement in research were integrated throughout the study (Table 1). For example, research was flexible according to the tribal context, allowing data to emerge from culturally appropriate contexts, relying on key insiders to guide this process. The use of life history interviews was a culturally

congruent form of data collection, and interviews were held at times and places that were self-determined by participants, including office buildings, homes, and private conference rooms.

This research was inclusive of all community voices, with sampling from elders, adults, youth, and professionals. Likewise, multiple interview techniques were used to ensure the collection of credible data, depending on what participants preferred, including individual interviews, group interviews (e.g., focus groups), and whole family interviews. Whole family interviews were important to honor the primacy of the family unit, as self-determined by participants. Tribal members were involved and hired throughout the data collection and analysis process, not only receiving compensation for their valuable time, but also cultivating the skills to conduct research in their own communities and advance as future scholars.

Limitations

Though we believe that the use of two tribal contexts allowed for a more nuanced ability to compare and contrast differences in risk and protective factors between tribes, we are limited in our ability to draw generalizations to other tribal populations. Future research should apply this approach to its additional specific tribal contexts. It is imperative that researchers follow tribal protocols for research, ensuring research is ethical and useful for tribes (Burnette et al., 2014). Moreover, research is subject to the ever-shifting political climate and localized context of each given tribe; sustaining the ability to engage, continue, and complete research projects is a delicate process. The real risk of not being able to conduct research and having the research process stalled or stopped altogether is ever present and must be considered before entering the field. Undoubtedly, many researchers will lack the capacity to engage in the level of rigorous data collection, analysis, and member checking that we believe is needed to respectfully and appropriately conduct research with AI/AN communities.

Due to cost and feasibility, interviews were conducted in English; in one interview with an elder who spoke limited English, a family member helped with interpretation. This may pose a limitation, as conducting interviews both in tribal language(s) and English may be the most culturally sensitive approach. This is particularly true given some words in tribal language(s) do not have a precise English translation. The research steps provided here are intended as a rubric with the understanding that they will be tailored according to local context. The importance of a sustained research method built on trust and the respect of tribal insiders cannot be emphasized

enough, but the details such as sample size, outreach, and follow up methods will differ by tribe. Long-term and prior relationships with each tribe are necessary to sustain this in-depth work.

CONCLUSIONS AND IMPLICATIONS

This article provides a roadmap for developing culturally relevant interventions through a rigorous and community-engaged approach to research. When interventions are not culturally tailored or relevant, they tend to be ineffective and may exacerbate existing disparities. (Dixon et al., 2007; Gone & Trimble, 2012). This research *invested resources* (Table 1) into two tribal communities to identify and translate risk and protective factors from the ground up. Although this methodology is demanding in the time and resources it requires, we have found very promising results, which has led to the culturally grounded scales (i.e., the Historical Oppression Scale and the Family Resilience Scale) that have significantly predicted important outcomes, such as ds depressive symptoms (Burnette, Renner, & Figley, 2019). With this groundwork complete, future research could build from extant factors, using a smaller number of focus groups or interviews to culturally adapt it to specific contexts.

It is our hope that this example of community-engaged and culturally sensitive research will be used by other researchers to inform interventions that aim to eradicate disparities, as this approach was designed to do. We are currently infusing culturally specific content with an appropriate EBP, which has an AI/AN cultural overlay. However, without first identifying and translating the culturally specific risk and protective factors, the identification of an appropriate EBP to adapt or develop would not have been possible, or important culturally relevant factors might have been missed (Whitbeck, 2006). The culturally appropriate and community-engaged approach to identifying culturally relevant risk and protective factors across multiple levels is a promising way to eradicate highly concerning AI/AN health disparities.

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

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

INTRODUCTION

For American Indians and Alaska Natives (AI/ANs), culture is a social determinant of health, in which loss is a risk factor; whereas, strengthening or re-connecting to culture are protective factors on multiple levels (Chandler & Lalonde. 1998; Menzies & Lavallee, 2014, Walters, Beltran, Huh, & Evans-Campbell, 2011). Health for Indigenous people has been negatively affected by hundreds of years of colonization and historical traumas (Ehlers, Gizer, Gilder, & Yehuda, 2013; Burton, Matthews, Leung, Kemp, & Takeuchi, 2011; Walters,

Mohammed, et al., 2011; Brave Heart & DeBruyn, 1998). One of the more recent federal assimilation policies impacting the communities in this study is the Relocation Act of 1956 which began moving large numbers of Indigenous peoples off reservations and into cities throughout the United States. San Francisco, Oakland, Los Angeles, San Jose, and Sacramento were among the cities in California that Indigenous peoples were removed to. The Relocation Act resulted in California becoming the home for many out-of-state tribes in addition to the many Indigenous tribes of California.[1]

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

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

[1] In this paper we use Indigenous or American Indian/Alaska Native [AI/AN] interchangeably to represent the original peoples of North America prior to colonization.

different approaches than Indigenous people to decision-making, health, risk assessment, and evaluation (Bartgis, 2016; Ellerby, McKenzie, McKay, Gariépy, & Kaufert, 2000).

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

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

More recent examples illustrating this include government funder requirements to use "evidence based practices" (EBPs) where: a) the practices and/or instruments were not developed by and for Indigenous persons; and b) the practices/instruments were not tested in multiple culturally different Indigenous communities. Thus, it was not well known if the EBPs were effective or harmful. In addition, and until recently (such as with the California Reducing Disparities project), the dominant culture also did not demonstrate much willingness to understand or consider community-defined evidence practices as being evidence-based and deriving from equally valid methods based upon hundreds of years and multi-generational observations

(California Department of Public Health, 2019; Larios, Wright, Jernstrom, Lebron, & Sorensen, 2016; Whitbeck, Walls, & Welch, 2012).

Indigenous and dominant cultural differences in evaluation also exist. For example, government project officers or university-based researchers typically find it difficult to accept that the community programs reduce substance abuse (and subsequently support mental health/well-being) without specifically measuring and demonstrating reductions in substance use. However, Indigenous communities, such as the partner communities in the *Culture is Prevention Project*, argue that programs that strengthen or reconnect to culture achieve those outcomes as a result of the strengthening of Indigenous culture and that the supporting evidence (in part) is that substance abuse was not an issue prior to colonization. We do know that both traditional knowledge and recent research has linked culture as a protective factor for better health and social outcomes for Indigenous peoples (Snowshoe et al., 2015; Garroutte et al., 2003; Gone, 2013; McIvor, Napoleon, & Dickie, 2009; Pu et al., 2013; Walter & Simoni, 2002; Whitbeck, Hoyt, Stubben, & LaFromboise; 2001). Given this, we argue that culture is a determinant of health and that strengthening or reconnecting to culture can then be considered both an important program objective and program outcome that then could be measured.

Background and Context

The *Culture is Prevention Project* is a 6-phased project (See Table 1) that derived from a Substance Abuse and Mental Health Services Administration (SAMHSA) funded project intended to address youth alcohol and prescription drug abuse and in general, per the SAMHSA mission statement, the impact of substance abuse and mental health. The *Culture is Prevention Project* was initiated because of concerns expressed by the 30-person Community Advisory Workgroup comprised of staff and community members from the six participating urban AI/AN health organizations. Specifically, the workgroup members were concerned about the program evaluation questions required by SAMHSA. Workgroup members and the participating Indigenous health organizations understood that the purpose of the funding was to reduce alcohol and prescription drug abuse in youth. However, the programs being delivered by the organizations were broad in purpose, scope, and objectives and expected outcomes. All fit into the Center for Substance Abuse and Prevention (CSAP) strategy type *Alternative Drug Free Activities* (USDHHS, 2017), where the interventions were further described by the partnering health services organizations as *Alternative Drug Free Activities – Traditional Culture-Based Activity/Ceremony*. There were

concerns that some of the strengths and outcomes of interventions that were considered important by the providing communities were not of interest or being addressed by SAMHSA.

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

Table 1
Culture is Prevention Project

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

A primary goal was to develop and implement a more culturally informed approach to demonstrating that the programs being delivered were achieving their objectives which included:

a) increasing and strengthening connection to AI/AN culture, values, history, teachings, and community; b) increasing skills; and c) building empowered, strong, and resilient youth. This community-based participatory research (CBPR) project is guided by a theory of change that the building and strengthening of Indigenous culture supports the development of youth to be resilient, emotionally and mentally healthy, and thus, less likely to engage in destructive behaviors such as alcohol/substance abuse and suicide.

Phase 1 & Phase 2

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

Table 2
Phase 1 Consensus Generating Workshop

Participants	Adult AI/ANs (*n* = 33). Included members of the Community Advisory Workgroup and additional community members considered to be knowledgeable community leaders.	
Research Questions	1) What traditional Native American practices are associated with positive changes in youth and community? 2) What are the positive health-related changes that result from these practices?	
Methods	Trained facilitators provided by SAMHSA – Center for Application of Prevention Technologies. Participants were randomly assigned to workgroup tables. Data collection and analysis took place during the workshop. Small group and large group consensus were achieved using a modified group consultation approach based upon the Nominal Group Technique (Jones & Hunter, 1995; Lloyd-Jones, Fowel, & Bligh, 1999; Masotti et al., 2015).	
Results	Our main interest was the results from the second question addressing health-related outcomes. The Workshop participants reached consensus that positive health-related changes that result from Native practices could be grouped into health-related outcomes in four categories:	
	1) Cultural Identity	Pride in being Native, reconnect to culture, revitalizing Native culture, knowledge of traditional practices and history, self-esteem, walking in two worlds (Native and non-Native), knowledge sharing
	2) Empowerment	Interdependence, competence, confidence, independence, locus of control, leadership
	3) Resiliency	Critical thinking, adapting in the face of adversity, trauma, tragedy, threats or significant sources of stress
	4) Generosity	Sense of contribution vs. burden to the community, volunteering, mentorship, sense of being a productive community member, sense of citizenship, natural helper, advocacy work, chores, and desire to give back

Table 3
Phase 2 Literature Search & Knowledge Synthesis

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

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

The Cultural Connectedness Scale (CCS) was developed in Canada by First Nations/Indigenous persons for First Nations/Indigenous persons. The 29-item CCS consists of three sub-scales: identity, traditions, and spirituality. A strength of Dr. Snowshoe's and her colleague's CCS is based in the development approach that was described as using an "Indigenous Quantitative Methodological framework" that embodies First Nations people's stand point, in which community and strengths-based approaches are the core of the framework. The development of the CCS included three main stages: 1) item generation (i.e., items were generated using key informants interviews and youth and community focus groups, which resulted in the

generation of 56 items); 2) judgment quantification (the 56 items were reviewed and evaluated by Indigenous/First Nation expert judges using a content validity index [Grant and Davis, 1997]); and 3) item selection (items were selected based on the review of rational expert judgments and the expert judgments' feedback on the items). This stage resulted in narrowing the number of items to 45 items that were then examined using exploratory and confirmatory factor analyses to refine and develop the final 29-item instrument (Snowshoe et al., 2015).

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

Table 4
Correlations between CCS Scales and Well-Being Measures

Variable	Identity	Traditions	Spirituality
Life Satisfaction	.176**	.006	.136**
Sense of Self in the Present	.166**	.131**	.136**
Sense of Self in the Future	.276***	.097*	.192***

*p < .05 **p < .01 ***p < .0001

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

to adapt the Snowshoe instrument to be appropriate for our more multi-tribal community. This then initiated Phase 3.

METHODS

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

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

Phase 3 Research Questions (asked in the focus groups)

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

Overview

A series of five scripted focus groups were conducted at the participating AI/AN health services organizations in Oakland, San Francisco, Sacramento, and San Jose, and additional key informant interviews were conducted among AI/AN staff and community members (n = 20). The

focus groups were facilitated by an elder (and MSW) who was known by each community. Supporting the facilitator were two additional note takers in each focus group.

Participants and Focus Groups

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

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

Table 5
Focus Group Tribal Affiliations

Apache	Kiwa Pueblo	Nez Perce Tribe	Shawnee	Wappo
Blackfoot	Konkow-Maidu	Northern Cheyenne	Taino	Washoe
Cherokee	Kootbah Indian Rancheria	Oneida	The 3 Affiliated Tribes of N. Dakota	Yaqui Apache
Chickasaw	Lakota	Osage	Tohono O'odham	Yokut
Choctaw	Lumbee	Paiute	Tongva	Yurok-Karuk
Dine	Miwok Tribe of Ione	Pomo	Tubatulabal	Yuki
Hopi	Nashville El Dorado Miwok	Quenchua	Uki	
Karuk	Navajo	Sac-N-Fox Nati		

Data Collection and Analysis

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

a. Do you find any of the wording in the question confusing or do you have suggestions for how the wording could be changed to be less confusing or a better fit (for multi-tribal communities in California)?
b. Are there some examples/measures that you feel are missing and should be added?
c. Are there some examples (e.g., linking to Native American/Indigenous culture, traditions, or spirituality) that you feel are not a good fit for our multi-tribal Native American/Indigenous Communities?

Participant Responses

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

Following the first two focus groups, results were then presented to the following three focus groups to address consensus. As with the previous focus groups, these participants were also asked the same questions for each of the 29 CCS original questions and were also asked to identify items that should be included in the growing Examples Lists.

Table 6
Original CCS Subscales

IDENTITY

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

TRADITONS

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

SPIRITUALITY

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

RESULTS

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

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

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

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

instrument when it was developed and requested to keep copies of the Examples Lists they had worked to develop.

DISCUSSION

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

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

Throughout Phases 1-3, there was a high degree of interest and engagement among the overall team comprised of the Community Advisory Workgroup, staff from the participating Indigenous Health Organizations, and community members they brought into the project. In part, this was because people were addressing an issue relating to mental health/well-being using a more Indigenous perspective. For example, SAMHSA's mission is to reduce the impact of substance abuse and mental illness (SAMHSA, 2019). However, as indicated earlier, there were concerns that the required outcome measures were overly focused on decreasing ‘at-risk’ behaviors such as drug and alcohol use and that there did not appear to be interest in capturing ‘health promoting behaviors’ or strength-based outcomes known to Native persons to improve health at individual, family, and community levels. One of these missing areas was the importance of Native culture as a social determinant of health.

Participants in the *Culture is Prevention Project* frequently indicated they were pleased to be working on a project they considered to be timely and important and which was aligned with their Indigenous strength-based narrative. Increasing protective factors, quality of life, and well-being is more aligned with traditional Native holistic, strength-based, and resiliency-based approaches to health versus the Western approach, which focuses more on decreasing risk or illness (Bartgis, 2016; Singer 2009; Arquette et al., 2002). As described by Bartgis:

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

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

Lessons Learned

Introducing the Project and CCS

How the project is introduced is important. After engagement with many people interacting with the *Culture is Prevention Project* and original CCS, it became clear that what people knew about the CCS in the beginning had an impact on how they viewed and accepted it. People were

open and willing to help when they were informed: a) that the original CCS was developed by an Indigenous person and scholar (Dr. Angela Snowshoe) in Canada for Indigenous persons with the objective of demonstrating the relationships between Indigenous culture and health; and b) that revised CCS-CA was developed by AI/ANs in California for AI/ANs. In some settings where the CCS-CA was presented without this history, the opposite reaction occurred. Individuals were immediately skeptical and assumed it was another attempt by science to quantify Native culture based upon Western concepts, biases, and assumptions. We thought this negative response could have been associated with a historical trauma response relating to negative or harmful impacts of outside research on AI/AN communities.

Adapting the CCS-CA for the Community

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

Implications

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

- The degree of culture or cultural connectedness can also be seen as an important health program objective.
- Given that the loss of culture has negatively impacted the well-being of Indigenous peoples (e.g., resulting in poor mental, emotional, spiritual, and physical health; lowered life satisfaction; and substance abuse), the degree of reclaimed culture or increased cultural connectedness may be a more important outcome measure, for Indigenous people, than the reduction in frequency of a risky behavior.

- CBPR projects, particularly those in Indigenous communities and in collaboration with government funders, may help to counteract some outcomes of colonization. This approach may facilitate a paradigm shift by increasing the willingness of the dominant culture to acknowledge and understand that some AI/AN practices have thousands of years of use and are successful in creating and supporting health/well-being and are therefore, by definition, "evidence based" (Brave Heart et al., 2011).
- Efforts should continue on the part of Indigenous people to push for increased promotion and use of Indigenous epistemology and approaches to program evaluation and health outcomes measures.
- Government, academia, and Western medicine should be cognizant that Indigenous cultures historically manufactured good health. Therefore, government, academia, and Western medicine should try to better understand and promote Indigenous epistemology and community-defined evidence practices and not undermine it.

Limitations

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

Future Research

Future research will include completing Phases 4-6 of the *Culture is Prevention Project*. In the next paper, we will present the results of the pilot and psychometric testing (Phase 4) that

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

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APPENDIX

Appendix A - Cultural Connectedness Scale – California, Sub Scales

Traditions - 11 Items

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

Identity - 11 Items

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

Spirituality - 7 Items

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

Response Format

[a] = Yes, No (or Not Applicable)
[b] = Strongly Disagree, Disagree, Do Not Agree or Disagree, Agree, Strongly agree
[c] = Never, once/twice past year, every month, every week, every day

Appendix A – Examples Lists: Cultural Connectedness Scale – California

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

List #6 Feathers
• Eagle • Condor • Flicker • Hummingbird • Raven • Hawk • Turkey • Quail • Woodpecker

Appendix B - Community-Specific Adaptation of the Cultural Connectedness Scale – California

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

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

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

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

2.1) Review each question. Evaluate words and terms such as 'Native American', 'Indian', 'Indigenous', 'First Nations', or 'Aboriginal'.
2.2) Change terms or names to what is appropriate to be community or Tribally specific such as changing 'Clan Mother' or 'Traditional Person' to what is typically used in its place.
2.3) This step could also mean changing the possible answers such as what we did for the Question: I know my cultural/spirit name or Indian name, to include the possible answers to be: Yes, No or Not Applicable (We do not have/use 'Indian Names').

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

Step 3: Review and revise the Example Lists

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

Appendix C – Operational Cultural Connectedness Scale – California

Background and Introduction

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

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

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

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

We thank you for your participation!

Snowshoe, A., Crooks, C. V., Tremblay, P. F., Craig, W. M., & Hinson, R. E. (2015). Development of a cultural connectedness scale for First Nations youth. *Psychological Assessment, 27,* 249-259. http://dx.doi.org/10.1037/a0037867

Cultural Connectedness Scale - California

QUESTIONS 1 - 11, Circle the Most Accurate Answer

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

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

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

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

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

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

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

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

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

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

11. **I have a traditional person, elder or other person who I can talk to (See Examples List #5).**
    Yes No

QUESTIONS 12 - 29, Circle the Most Accurate Answer

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

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

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

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

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

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

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

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

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

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

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

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

24. When I am overwhelmed with my emotions, I look to my Native American/Indigenous culture or community for help.
Strongly Disagree Disagree Do Not Agree or Disagree Agree Strongly Agree

25. When I need to make a decision about something, I look to my Native American/Indigenous culture or community for help.

Strongly Disagree Disagree Do Not Agree or Disagree Agree Strongly Agree

26. When I am feeling spiritually ill or disconnected, I look to my Native American/Indigenous culture or community for help.

Strongly Disagree Disagree Do Not Agree or Disagree Agree Strongly Agree

Please answer how often you experience the following:

27. How often do you offer a ceremonial/ traditional medicine for cultural/traditional purposes? (See Examples List #1)

Never Once/Twice in the Past Year Every Month Every Week Every Day

28. How often do you use ceremonial/traditional medicines? (See Examples List #1)

Never Once/Twice in the Past Year Every Month Every Week Every Day

29. How often does someone in your family or someone you are close to use ceremonial or traditional medicines? (See Examples List #1)

Never Once/Twice in the Past Year Every Month Every Week Every Day

CCS-CA SCORING

Yes = 5 No = 1 NA = 3

Strongly Disagree = 1
Disagree = 2
Do Not Agree/Disagree = 3
Agree = 4
Strongly Agree = 5

Never = 1
Once/Twice Past Year = 2
Every Month = 3
Every Week = 4
Every Day = 5

CCS-CA Range: 29 – 145

Identity Subscale: 11 - 55
Traditions Subscale: 11 - 55
Spirituality Subscale: 7 - 35

Examples Lists: Cultural Connectedness Scale - California

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

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