The Role of Culturally-related Anxiety in Fulfilling a Tribal College’s Mission

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Background

• Original Plan:
  • Anxiety
  • College persistence

• Examined instruments:
  • Beck Anxiety Inventory
  • Hamilton Anxiety Rating Scale
  • Hospital Anxiety and Depression Scale
  • Manifest Anxiety Scale
  • State-Trait Inventory for Cognitive and Somatic Anxiety
  • College Self-Efficacy Inventory
  • College Persistence Questionnaire
Community-Based Participatory Research

• Open-recruitment community focus group – July 2016
  • Recruitment
    • Fliers
    • Student researchers visited places to discuss group
      • CDC
      • Tribal Council
      • Health Offices
      • Head Start
    • Student researchers confirmed participation
      • We “recruited” 16 and ended up with 12 that showed
      • Dinner provided & gas cards (local gas station)
Community-Based Participatory Research

• Open-recruitment community focus group – July 2016
  • 12 participants
  • Open discussions
    • Problems facing students
    • Defining a culturally-engaged person
    • Effects of cultural-engagement
    • Thoughts on degree of cultural-engagement in the community
    • Factors contributing to anxiety
    • Data collection methods
Community-Based Participatory Research

• Major themes:
  
  • Cultural-related anxiety
    • Fear to engage due to lack of knowledge
    • Rejection of family toward cultural practices
  
  • Historical trauma & past
  
  • Not enough cultural knowledge
  
  • Concerns about quantitative data
Two scales

- American Indian Enculturation Scale
- Cultural Involvement and Detachment Anxiety Questionnaire

***Designed for Native Americans
***Resonated more with this population
***Touched on similar issues discussed in focus group
American Indian Enculturation Scale

• Winderowd, Montgomery, Stumblingbear, Harless, & Hicks (2008)

• Create an instrument to assist in counseling practice
  • Enculturation – the process a person learns about and/or identifies with his/her cultural roots (not the way one interacts with Non-Native cultures)

  • Extended beyond the issue of succeeding in “two worlds”
  • Internalized struggles
American Indian Enculturation Scale

• Tribal College’s Mission Statement –
  • “maintaining and revitalizing” indigenous lifeways

• How much do colleges know or assess students’ current cultural knowledge?
• What are the reasons that students do not possess knowledge or do not engage in their culture?

• Can the answers to these questions help tribal college students learn and engage in their culture, thus developing a stronger, healthier sense of identity and belonging?
  • For counseling, what cultural interventions may work best for this form of identity healing?
American Indian Enculturation Scale

• Compared with Native American Acculturation Scale
  • This scale involved too much Western culture influences
    • What movies do you prefer?
    • What was the ethnic origin of your friends you had as a child 6 to 18?
    • Do you participate in Native American traditions, ceremonies, occasions, and so on?
    • In what language do you think?
    • What foods do you prefer?

• 17-item rating scale (1-7)
American Indian Enculturation Scale

• We piloted the instrument during the summer
  • Several items were adapted to minimalize intrusiveness and increase the likelihood of responding

• Attend Indian church
• Use Indian medicine
• Do Indian art

  Attend Native American Church (peyote meeting or other religious ceremony)
  Use traditional plants, herbs, berries
  examples: beading, traditional style art, modern but Indian-themed artwork, winter count, music/drums/singing
Cultural Involvement & Detachment Anxiety Questionnaire

  - Included Haskell Indian Nations University & Dine College

- Specific for Native American experiences; not a generalized anxiety approach

- Focused on acculturation issues
  - Social involvement with tribal members and other Native American groups
  - Degree of interaction with majority (Non-Native culture)
  - Knowledge of Native culture
  - 9-point scale (0 – no anxiety - 8 high anxiety)
Cultural Involvement & Detachment Anxiety Questionnaire

• After piloting, we adapted some items to minimalize intrusiveness and increase the likelihood of response

• We also added some items based on issues we discussed from our focus group

• Original scale – 20-items
• New scale – 25-items
Changes

• Working with people other than Native Americans

• Use of phrase “majority (white) culture”

• Use of “ethnic” group

• Getting along well with Non-Native coworkers or classmates

• Either “off the reservation” or “Non-Native culture”

• Native or tribal
Parallels

- Original mostly emphasized situations in Non-Native culture:
  - Housing
  - Employment
  - Healthcare
  - Satisfying career
  - Social acceptance – “ethnic group’s reaction” to level of involvement in Non-Native culture

- Parallels for both on and off the reservation:
  - Housing
  - Employment
  - Healthcare
  - Satisfying career
  - Social acceptance-what tribal members will say about involvement with Native and Non-Native culture
Other items

• Having access to my tribal and religious ceremonies

• Teaching my tribal customs to future generations

• Maintaining contact with my Native American friends

• Maintaining social interaction with my tribal people

• Continuing to acquire knowledge of tribal traditions
Research questions...

• Tribal College’s Mission Statement –
  • “maintaining and revitalizing” indigenous lifeways

  • How much do colleges know or assess students’ current cultural knowledge?
  • What are the reasons that students do not possess knowledge or do not engage in their culture?
    • Are they, in fact, anxious about learning about their culture or getting more involved in their culture?

• Can the answers to these questions help tribal college students learn and engage in their culture, thus developing a stronger, healthier sense of identity and belonging?
  • For counseling, what cultural interventions may work best for this form of identity healing?
Design

• Instruments:
  • American Indian Enculturation Scale
  • Cultural Involvement and Detachment Anxiety Questionnaire
  • Semi-structured Follow-up Interview based on survey items
    • Community Focus Group was concerned about survey studies
    • Answer questions that surveys cannot
      • Why?
      • How?
Participants

• Recruitment
  • Invitation letters
    • Did not do fliers due to randomization process
    • Letters differed based on survey-only and survey and interview participation
    • Letters were delivered and reviewed in-person
  
• 60 students were calculated as a representative sample based on enrollment numbers for Fall 2016
  • Had to be enrolled in the college
  • Had to be Native American

• Stratified randomization – 40-50% from each major selected randomly (every 3rd person chosen)
  • Every 3rd name from the chosen ones were invited for an interview (20)
Participants

• Age groups
  • 18-22 – 29 participants
  • 23-34 – 22 participants
  • 35 or older – 9 participants

• Gender
  • Female – 29
  • Male - 31

• Tribal affiliation
  • Tribe A – 27
  • Tribe B – 17
  • Both – 9
  • Other – 5
  • None – 9

• Major
  • Health Science - 13
  • Carpentry/Welding - 15
  • Science - 8
  • Humanities - 6
  • Social Sciences - 9
  • Business - 9
Incentives

- $2 coffee & breakfast card for the local AIBL coffee shop
  - Supports college food bank

- Drawing:
  - 10 drawings – gas cards (local), grocery cards, and gift card
Qualitative Interview

• Adapted some questions from the Native American Acculturation Scale
  • How do you identify yourself?
  • Tell me where you are from or where you grew up?
  • Tell me where you see yourself in relation to your (tribal) culture and heritage?
    • Rephrased: What role does your tribal culture or heritage play in your life?

• Ranged: 20 minutes to 1.5 hours
  • Audio recorded
Qualitative Interview

• Interview guide
  • Adapted several times based on pilot interviews

• Avoid questions that were intrusive

• Added questions based on responses or lack of quality responses

• Questions were all designed to provide more detail from the two survey instruments
IRB

• IRB approval – from tribal college’s IRB

• NIH & CITI training completed by all researchers

• Signed Informed Consent
  • Separate forms used for interview participants and survey-only participants
Confidentiality

• Six-digit identification numbers
  • On surveys
  • Stated on interview recordings
  • Key kept on locked computer

• Will remove all identifiable information (names, places, etc.)

• Limits of confidentiality were on the consent forms

• ***student researchers signed confidentiality agreements
  • Participants were notified of this agreement in the consent form
Community Consultant Team

• Recruited 6 members from our original focus group

• Met in August 2016 to approve all study instruments
  • Surveys
  • Interview guide

• Plan to consult again to review analysis
  • August 2017
  • Ask for “reviewers”
Internal Consistency

- **AIES**: To determine reliability, we conducted an item-total correlation for all 17-items on the AIES. Correlations for all items were greater than .3. The overall alpha was .917, indicating a high internal consistency, and the alpha would not increase with any deletion of items.

- **CIDAQ**: We also performed an item-total correlation for all 25-items on the CIDAQ. Correlations for all items were greater than .3. The overall alpha was .933, indicating a high internal consistency, and the alpha would not increase with any item deletions.
Validity

• Principal components analysis was used to determine construct validity

• Each item had 60 respondents and our factor loadings were greater than 0.6, which makes it reliable regardless of our smaller sample

• KMO values ranged from 0.7 and 0.8 for the CIDAQ and .8 to 0.9 for the AIES, indicating that this method is highly reliable (Hof, 2012).
<table>
<thead>
<tr>
<th>Item</th>
<th>Factor I</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Attend Native American Church</td>
<td>.49</td>
</tr>
<tr>
<td>B. Attend Indian ceremony</td>
<td>.63</td>
</tr>
<tr>
<td>C. Choose Indian activity before others</td>
<td>.75</td>
</tr>
<tr>
<td>D. Socialize with Indians who take part in traditional activities</td>
<td>.68</td>
</tr>
<tr>
<td>E. Use traditional plants, herbs, berries</td>
<td>.74</td>
</tr>
<tr>
<td>F. Seek help from Elders</td>
<td>.76</td>
</tr>
<tr>
<td>G. Attend pow-wows/Dances</td>
<td>.45</td>
</tr>
<tr>
<td>H. Sing Indian songs</td>
<td>.76</td>
</tr>
<tr>
<td>I. Participate in Indian prayers</td>
<td>.80</td>
</tr>
<tr>
<td>J. Write Indian stories, papers on Indian history/issues or share family stories</td>
<td>.73</td>
</tr>
<tr>
<td>K. Eat or cook Indian cultural food</td>
<td>.63</td>
</tr>
<tr>
<td>L. Do Indian art</td>
<td>.52</td>
</tr>
<tr>
<td>M. Use or know the Indian language</td>
<td>.66</td>
</tr>
<tr>
<td>N. Perform or practice Indian dances</td>
<td>.70</td>
</tr>
<tr>
<td>O. Know or participate in tribal politics</td>
<td>.49</td>
</tr>
<tr>
<td>P. Know or share Indian history</td>
<td>.78</td>
</tr>
<tr>
<td>Q. Work in Indian communities/population</td>
<td>.56</td>
</tr>
</tbody>
</table>
Factor Structure – Principal Components Analysis - CIDAQ

• Original solution – 6 factors with eigenvalues greater than 1
  • Conducted analysis for 2, 3, and 4 solutions
• 3-factor solution most interpretable and similar to original researchers’ structure
• Direct oblimin rotation

• Economic and Health Issues
• Social Involvement with Non-Native Culture
• Social Involvement with Native Americans and Cultural Knowledge
I. Economic & Health Issues

15. having adequate healthcare on the reservation  .87  .13  .16
3. having affordable housing and transportation  .80  .19  .22 off the reservation
9. having a satisfying career off the reservation  .78  .07  -.06
23. maintaining employment off the reservation  .74  -.07  -.15
2. having affordable housing and transportation on the reservation  .66  -.11  -.09
22. maintaining employment on the reservation  .65  .06  -.23
16. having adequate healthcare off the reservation  .62  -.23  -.17
10. having a satisfying career on the reservation  .63  -.09  -.15
8. learning about employment opportunities off the reservation  .55  -.02  -.30
1. getting along well with Non-Native coworkers or classmates  .48  .41  .01
II. Social Involvement with Non-Native Culture

6. what my tribal members will say/think about my level of involvement with Non-Native culture  
   -0.09 0.75 -0.10

17. maintaining social interaction with my tribal people  
   -0.11 0.72 -0.39

5. having access to my tribal and religious ceremonies  
   0.30 0.74 0.11

7. what my tribal members will say/think about my level of involvement with Native culture  
   0.02 0.56 -0.20

13. maintaining contact with my Native American friends  
   -0.03 0.51 -0.49

4. finding opportunities off the reservation to make Native American friends  
   0.52* 0.42 0.00

25. damaging relationships with my tribal family or friends because of friendships or romantic relationships with Non-Native people.  
   0.46* 0.42 0.10
III. Social Involvement with Native Americans and Cultural Knowledge

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>20. continuing to acquire knowledge of tribal traditions</td>
<td>-.05</td>
<td>.07</td>
<td>-.86</td>
</tr>
<tr>
<td>19. misunderstanding my tribal cultural practices</td>
<td>.00</td>
<td>.07</td>
<td>-.78</td>
</tr>
<tr>
<td>12. maintaining knowledge of my ancestry</td>
<td>.19</td>
<td>.02</td>
<td>-.74</td>
</tr>
<tr>
<td>11. teaching my tribal customs to future generations</td>
<td>.19</td>
<td>.02</td>
<td>-.72</td>
</tr>
<tr>
<td>18. misunderstanding Non-Native cultural practices</td>
<td>.27</td>
<td>.11</td>
<td>-.47</td>
</tr>
<tr>
<td>24. feeling confident to practice my tribal traditions</td>
<td>-.03</td>
<td>.13</td>
<td>-.59</td>
</tr>
<tr>
<td>21. interacting in a predominantly Non-Native peer group</td>
<td>.40</td>
<td>-.27</td>
<td>-.44</td>
</tr>
<tr>
<td>14. being able to have close, personal Non-Native friends</td>
<td>.32*</td>
<td>.12</td>
<td>-.30</td>
</tr>
</tbody>
</table>
Interview Analysis

• Currently in progress

• 1st read – develop initial code list
• Imported “clean” transcripts into Dedoose
  • Set up descriptors and codes
• Blind recoding using the “disenabled” function
• Next step – discuss results and re-code as
  • Participant checks
  • Consult Community Consultant Team
Initial codes

- **Group I: Cultural Connecting**
  - Cultural connecting & learning
  - Cultural disconnecting

- **Group II: Cultural Well-being**
  - Cultural confidence
  - Cultural insecurity

- **Group III: Healing & Belonging**
  - Culture as healing
  - Bound to community
  - Historical trauma/reacting to racism
Qualitative Validity & Reliability

- *Naturalistic Inquiry* (Lincoln & Guba, 1985)
  - *Truth Value* (credibility)
    - Multiple realities that are fairly represented (respondents and interpreters)
    - Participant checks, multiple interpreters (Native and Non-Native), audit trails/notes
    - Knowing culture/context (investigators are local) – prolonged engagement
Qualitative Validity & Reliability

• **Naturalistic Inquiry** (Lincoln & Guba, 1985)
  • **Applicability** (transferability)
    • Rejects notion that time and context do not impede results from similar populations
    • Provide descriptive, rich data*** to help other researchers determine if research may produce similar results in a new context

• ***we wanted a study meaningful to OUR context (Community-based Participatory Research)
Qualitative Validity & Reliability

• **Naturalistic Inquiry** (Lincoln & Guba, 1985)
  • *Neutrality* (objectivity or confirmability)
    • Focuses more on the data – only interpreting what is in the data
    • Participant checks and multiple interpreters
    • Audit trail – **assign an auditor***
      • Raw data – transcripts and notes
      • Data reduction process and analysis
      • Data reconstruction and synthesis
      • Process notes
      • Research journal notes
      • Instrument development information
Quantitative Results
Descriptive Statistics

<table>
<thead>
<tr>
<th>Scale</th>
<th>Range</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIES (119)</td>
<td>84</td>
<td>21</td>
<td>105</td>
<td>58.15</td>
<td>22.02</td>
</tr>
<tr>
<td>CIDAQ (200)</td>
<td>163</td>
<td>1</td>
<td>164</td>
<td>80.03</td>
<td>39.38</td>
</tr>
</tbody>
</table>
Relation between AIES and CIDAQ total scale scores:

• Spearman correlation
  • Chosen because AIES is not normally distributed
  • Data is ordinal

• Not significant
  • $R(60) = -.011, p > .05$

• Instruments analyzed independently
Gender Comparisons – total scale scores

• AIES – Mann-Whitney independent samples test
  • $H_0$: The two populations are equal
  • $H_1$: The two populations are not equal.
  • Results not significant $p > .05$

• CIDAQ – Independent samples $t$ test
  • Male ($M = 84.09; SD = 44.64$) and Female ($M = 75.69; SD = 33.09$)
  • Not significant ($t = .82; df = 58; p > .05$).
CIDAQ subscales & Gender

• Economic & Health Issues:
  • Independent $t$ test not significant
  • Not significant ($t = .18; df = 58; p > .05$)
  • Male ($M = 39.81; SD = 21.05$) and Female ($M = 38.90; SD = 17.34$)

• Social Involvement with Non-Native Culture:
  • Mann-Whitney independent samples test
  • Not significant ($p > .05$)
  • Male ($M = 17.82; SD = 12.81$) and Female ($M = 16.07; SD = 12.0$)

• Social Involvement with Native Americans and Cultural Knowledge:
  • Independent samples $t$ test
  • Not significant ($t = 1.55; df = 58; p > .05$)
  • Male ($M = 26.46; SD = 15.45$) and Female ($M = 20.72; SD = 12.92$)
One-Way ANOVA analysis of variance – Age

• Levene’s $F$ test to ensure homogeneity of variance
  • $1.457 (p > .05)$ for the AIES and CIDAQ .415 ($p > .05$)
  • Reduces Type 1 errors

• $H_0$: $\mu_1 + \mu_2 + \mu_3$

• $H_a$: $\mu_i \neq \mu_k$ Where $i$ and $k$ indicate unique groups.

• Alpha of .05 for all analysis

• AIES – significant difference/reject null hypothesis $F(2, 57), p < .05, MS_{error} = 448.04$

• CIDAQ – not significant/retain null hypothesis $F(2, 57), p > .05, MS_{error} = 1594.27$
Post hoc comparison – Gabriel test (nonparametric)

<table>
<thead>
<tr>
<th>Age Category</th>
<th>Mean</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-22</td>
<td>50.79/78.16</td>
<td>0.00/0.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>23-34</td>
<td>65.77/79.40</td>
<td>14.98**/1.24</td>
<td>0.00/0.00</td>
<td></td>
</tr>
<tr>
<td>35+</td>
<td>63.22/87.56</td>
<td>12.43/9.39</td>
<td>2.55/8.15</td>
<td>0.00</td>
</tr>
</tbody>
</table>

** p < .01

(Effect Size is indicated in parentheses)
Correlation – total scale scores with Age

• AIES
  • Spearman Correlation
  • Statistically significant $r(59) = +.344 \ p < .01$, two-tailed
  • Positive correlation

• CIDAQ
  • Pearson Correlation
  • Not significant $r(59) = +.07, \ p > .05$, two-tailed
CIDAQ subscales - Age

• One-Way ANOVA – alpha .05
  • Economic & Health Issues
    • Levene 1.36 (p > .05)
    • Not significant ($F(2, 57), p > .05, MS_{error} = 376.75$)
  • Social Involvement with Non-Native Culture
    • Levene .338 (p > .05)
    • Not significant ($F(2, 57), p > .05, MS_{error} = 157.14$)
  • Social Involvement with Native Americans and Cultural Knowledge
    • Levene statistic of 1.37 (p > .05)
    • Not significant ($F(2, 57), p > .05, MS_{error} = 214.38$)
Tribal affiliation

• Identifying with a tribe or not (yes/no)

• AIES – Mann-Whitney independent samples test
  • $H_0$: The two populations are equal
  • $H_1$: The two populations are not equal
  • identified with a specific tribe, $M = 60.62$, $SD = 21.37$ and for those who did not, $M = 42.13$, $SD = 20.55$.
  • Significant $p < .05$
Tribal affiliation

• CIDAQ
  • identified with a specific tribe, $M = 82.76; sd = 37.27$) and for those who did not identify with a specific tribe, $M = 62.3; sd = 50.33$
  • Independent samples $t$ test
  • Not significant ($t = 1.38; df = 58; p > .05$)

• Subscales
  • Economic & Health Issues – Not significant/independent samples $t$ test ($t = 1.86; df = 58; p > .05$)
  • Social Involvement with Non-Native Culture – Not significant/Mann-Whitney independent samples test ($p > .05$)
  • Social Involvement with Native Americans and Cultural Knowledge – Not significant/independent samples $t$ test ($t = .81; df = 58; p > .05$)
Tribal affiliation

- One-Way ANOVA, .05 alpha
- Levene’s .821 (p > .05) for the AIES and .874 (p > .05) for the CIDAQ
  - $H_0$: $\mu_1 + \mu_2 + \mu_3 + \mu_4 + \mu_5$
  - $H_a$: $\mu_i \neq \mu_k$ Where $i$ and $k$ indicate unique groups

- AIES – not significant $F(4, 55)$, $p > .05$, $MS_{error} = 495.92$
  - Spearman correlation not significant $r(59) = -.176$, $p > .05$, two-tailed
- CIDAQ – not significant $F(4, 55)$, $p > .05$, $MS_{error} = 1580.24$
  - Pearson correlation not significant $r(59) = + -.204$, $p > .05$, two-tailed
Tribal affiliation by specified tribe

Table 1

Means and Standard Deviations of AIES/CIDAQ Total Scale Scores by Tribal Category

<table>
<thead>
<tr>
<th>Tribal Category</th>
<th>n</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Tribe A)</td>
<td>20</td>
<td>60.65/88.80</td>
<td>22.14/32.44</td>
</tr>
<tr>
<td>(Tribe B)</td>
<td>17</td>
<td>62.29/82.59</td>
<td>23.86/40.44</td>
</tr>
<tr>
<td>(Tribe A/B)</td>
<td>9</td>
<td>56.44/76.60</td>
<td>15.26/36.30</td>
</tr>
<tr>
<td>Other</td>
<td>5</td>
<td>54.40/60.40</td>
<td>16.27/45.16</td>
</tr>
<tr>
<td>None</td>
<td>9</td>
<td>48.56/70.04</td>
<td>27.24/52.49</td>
</tr>
<tr>
<td>Total Group</td>
<td>60</td>
<td>58.15/80.03</td>
<td>22.02/39.38</td>
</tr>
</tbody>
</table>
Tribal affiliation CIDAQ subscales

• One-Way ANOVA, .05 alpha

• Economic & Health Issues:
  • Levene Statistic of .554 (p > .05)
  • Tribe A = 44.20 (SD = 14.88); Tribe B = 42.06 (SD = 19.19); Both = 37.36 (SD = 22.06); Other = 29 (SD = 25.20); and None = 31.33 (SD = 20.76)
  • Not significant \((F(4, 55), p > .05, M_{error} = 162.04)\).

• Social Involvement with Non-Native Culture
  • Levene Statistic of 1.41 (p > .05)
  • Tribe A = 18.15 (SD = 10.66); Tribe B = 16.71 (SD = 14.90); Both = 15.94 (SD = 9.48); Other = 14.20 (SD = 9.91); and None = 17.44 (SD = 16.16)
  • Not significant \((F(2, 57), p > .05, M_{error} = 157.14)\).
Tribal affiliation CIDAQ subscales

• One-Way ANOVA, .05 alpha

• Social Involvement with Native Americans and Cultural Knowledge
  • Levene statistic of .450 (p > .05)
  • Tribe A = 26.45 (SD = 13.78); Tribe B = 23.82 (SD = 14.46); Both = 23.30 (SD = 14.65); Other = 17.20 (SD = 15.12); and None = 21.27 (SD = 17.03)
  • Not significant \(F(4,55), p > .05, M_{error} = 216.45\)

• Identifying with a specific tribe is significant but no significant differences among tribal affiliations
College Major – total scale scores

<table>
<thead>
<tr>
<th>College Major</th>
<th>n</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allied Health/Nursing</td>
<td>13</td>
<td>61.54/28.45</td>
<td>17.21/28.45</td>
</tr>
<tr>
<td>Carpentry/Welding</td>
<td>15</td>
<td>49.80/73.19</td>
<td>21.34/43.69</td>
</tr>
<tr>
<td>Environmental Science/Computer Information Systems</td>
<td>8</td>
<td>50.50/74.38</td>
<td>18.72/39.12</td>
</tr>
<tr>
<td>American Indian Studies/Liberal Arts</td>
<td>6</td>
<td>74.50/78.83</td>
<td>23.57/47.32</td>
</tr>
<tr>
<td>Education/Human Services/Psychology</td>
<td>9</td>
<td>62.89/73.11</td>
<td>23.76/37.76</td>
</tr>
<tr>
<td>Business</td>
<td>9</td>
<td>58.33/90.11</td>
<td>26.15/47.70</td>
</tr>
<tr>
<td>Total Group</td>
<td>60</td>
<td>58.15/80.03</td>
<td>22.02/39.38</td>
</tr>
</tbody>
</table>
College Major – total scale scores

• One-Way ANOVA, .05 alpha
  • $H_0: \mu_1 + \mu_2 + \mu_3 + \mu_4 + \mu_5 + \mu_6$
  • $H_a: \mu_i \neq \mu_k$ Where $i$ and $k$ indicate unique group

• AIES
  • Levene’s .443 ($p > .05$)
  • Not significant $F(5, 54), p > .05, MS_{error} = 465.70$

• CIDAQ
  • Levene’s .415 ($p > .05$)
  • Not significant $F(5, 54), p > .05, MS_{error} = 1628.65$
CIDAQ subscales & college major

• One-Way ANOVA, .05 alpha

• Economic & Health Issues:
  • Levene Statistic of .457 (p > .05)
  • Allied Health/Nursing = 44.61 (SD = 16.49); Carpentry/Welding = 34.61 (SD = 19.37); Environmental Science/Computer Information Systems = 37.50 (SD = 20.12); American Indian Studies/Liberal Arts = 42.33 (SD = 23.60); Social Sciences = 35.33 (SD = 19.24) and Business = 43.44 (SD = 21.10)

• Not significant ($F(5, 54)$, $p > .05$, $MSE_{error} = 1382.54$)
CIDAQ subscales & college major

• One-Way ANOVA, .05 alpha

• Social Involvement with Non-Native Culture:
  • Levene’s .407 (p > .05)
  • Allied Health/Nursing = 21.54 ($SD = 13.25$); Carpentry/Welding = 15.30 ($SD = 12.87$); Environmental Science/Computer Information Systems = 16.13 ($SD = 11.73$); American Indian Studies/Liberal Arts = 10.67 ($SD = 10.88$); Social Sciences = 14 ($SD = 9.08$) and Business = 21.67 ($SD = 13.96$)
  • Not significant ($F(5, 54)$, p > .05, $MS_{error} = 151.842$)
CIDAQ subscales & college major

• One-Way ANOVA, .05 alpha

• Social Involvement with Native Americans and Cultural Knowledge:
  • Levene’s .488 (p > .05)
  • Allied Health/Nursing = 24 (SD = 13.01); Carpentry/Welding = 23.28 (SD = 15.05); Environmental Science/Computer Information Systems = 20.75 (SD = 14.29); American Indian Studies/Liberal Arts = 25.83 (SD = 15.13); Social Sciences = 23.78 (SD = 16.93) and Business = 25 (SD = 16.34).
  • Not significant \((F(5,54), p > .05, MS_{error} = 226.04)\)
Summary of significant results

• AIES total scale scores & age – positive correlation

• AIES total scale scores & 23-34 age group (increasing scores)

• Identifying with a specific tribe & total AIES scores

• ***homogeneity of group may account for lack of significant differences
Preliminary Qualitative Results
Tribal Affiliation

We still have tribe names identified in our data, so we will not present a chart.

Tribe A

highest in cultural connecting, cultural insecurity, bound for community, culture as healing, and historical trauma.

Tribe B

highest in cultural confidence
AIES total scale scores

- Cultural Connecting
- Culturally Connecting
- Culturally Disconnecting
- Cultural Well-Being
- Cultural Confidence
- Cultural Insecurity
- Healing & Belonging
- Bound to Community
- Culture as Healing and Health
- Historical Trauma

Legend:
- Blue: 21-32
- Red: 33-44
- Green: 45-56
- Purple: 57-68
- Teal: 69-80
- Orange: 81-92
- Gray: 93-104
CIDAQ total scale scores

- Cultural Connecting
- Culturally Connecting
- Culturally Disconnecting
- Cultural Well-Being
- Cultural Confidence
- Cultural Insecurity
- Healing & Belonging
- Bound to Community
- Culture as Healing and Health
- Historical Trauma

Legend:
- Blue: 20-40
- Maroon: 41-61
- Green: 62-82
- Greenish: 83-103
- Aqua: 104-124
- Orange: 125-145
- Orange: 146-166
Culturally Connecting
Culturally Connecting — having people to teach the culture, being supported to learn the culture, fostering ongoing cultural learning, and/or serving as a culturally connection point for others.

• “I think it be nice to have fluent conversations with Elders in the language, because not very many people that are able to talk too fluently in the language that can understand. I really like to talk with Elders and listen to their stories and stuff. I think it would be really nice that I could talk fluently with them.”
Culturally Disconnecting — no connection, rejecting culture or being influenced to reject culture, forgetting knowledge once learned, or having little access to culture (moving away or multicultural households).

• “My mom didn’t really care, but my grandma always told me not to. Because even my great grandmother, she was ninety when she died, she became a Christian in her older years. She told me not to follow those ways because they’re not the same as they used to be and everything’s changed. Just to keep going to church is what she told me.”

• “I’m not really culturally connected, and I think it’s a little late in the game to be—to be trying to culturally connect after um, I’m going to say, half my life has been in one direction, you know. I don’t know if there would be a point to me switching back to um, learning something brand new. I really don’t.”
Cultural Well-Being
Cultural Confidence — *feeling knowledgeable, sharing knowledge, expressing cultural pride, and/or actively participating in activities*

- “I’d say hunting and fishing. I mean, I like doing them a lot, me and my son, um, like this past hunting season, I hunted like 5 days a week, and it’s just like being out there, and you know, if like I’m walking brush or whatever, I always like think why, you know, what if some of my ancestors were here, or you know, I mean, just small stuff like that like, I like thinking about it.”
Cultural Insecurity – feeling “othered” by other Native people and/or Non-Native people, anxiety created from cultural exposure, little involvement/passive involvement with culture and/or discouragement from participating.

- “I don’t like to do it [pray] in front of everybody, though. Yeah, just do it at my house and stuff. Yeah, because a lot of things I don’t like to do publically because I don’t like, I don’t like the feeling of people thinking that I’m showing off or something. And it makes my anxiety kick in. You’re being cocky. You’re being arrogant. Look at him, you know. And I don’t...makes me feel nervous. I don’t know, I just have anxiety, so...” [laughs]
Healing & Belonging
Bound to Community — wanting to stay in the community or with other Native people, wanting to give back to the community, and/or not wanting to live outside the reservation.

• “Because like, I was so used to being around other Natives all the time, it was kind of hard to make friends cause, you don’t really. Like when you’re just around nothing but Native people, you don’t really know how to start a conversation, I guess. And then other places weren’t too bad because there were Natives everywhere. And that’s just where I tend to be drawn to is just other Natives.”

• “And we still, you know, the reservations, it’s not what people make it out to be. Like all the drinking and suicides, you know—I mean, yeah that stuff happens, but people look at the negativity but they don’t look at the positive stuff. You know, we still got our—we still got um, own pretty much our whole land, the reservation, you know, and well, I’m proud to be from [reservation] because that’s my ancestry.”
Culture as Healing: using cultural activities/ceremonies to ease negative emotions or psychological conditions or using culture as a way to help others

• “I just started thinking, what can I do to make myself feel better because sometimes, when it’s mental, it’s hard. So that’s when, you know, I pray and I smudge up and stuff. It really does, you know. It really helps me. It helps me out a lot. And when I learn like my language, and all my cultural things that really takes my anxiety away because I don’t know. It’s just soothing. I don’t know why.”

• “Yeah, I like to do smudging when I can. It's, I like it. It makes me feel cleansed, and like I'm going to have a good day especially if I do it in the morning.”
Preliminary conclusions

• Age:
  • 23-34 impact on AIES total scores
  • Positive correlation
  • Qual: highest in culturally connecting, cultural confidence, bound to community, culture as healing and historical trauma

• Age group is forward thinking
• Age group is more experienced (work and life)
• Age group may have children – see value in passing on knowledge
• Age group still comfortable learning
Preliminary conclusions

• Gender:
  • No significant results in Quantitative

• Qualitative:
  • Males – higher in culturally connecting, cultural confidence, bound to community, culture as healing, and historical trauma
  • Females – higher in culturally disconnecting and cultural anxiety
Preliminary conclusions

• Tribe identity:
  • Identifying with a tribe is significant
  • No specific tribe showed a difference

• Still analyzing qualitative data for specific tribes
Preliminary conclusions

• College Major
  • No significant results for qualitative or quantitative
Preliminary conclusions

• Economic & Health Issues Subscale
  • No quantitative significant data

• Social Involvement with Non-Native Culture
  • No quantitative significant data

• Social Involvement with Native Americans and Cultural Knowledge
  • No quantitative significant data
Preliminary conclusions

• Several participants discussed family members not supporting culture
  • Our survey said other tribal members; should change to family
  • May be other items to change after more analysis

• Qualitative data more useful
  • More detailed in what knowledge people possessed and the cultural issues they face
  • Talking about issues helps people reflect and make realizations; surveys do not
  • A more thorough qualitative study with more participants and multiple interviews would be stronger
    • Grounded theory/phenomenology vs. semi-structured
Preliminary conclusions

• Participants interviewed seemed to show more concern about lacking support from other Native people versus issues in Non-Native culture.
  • Survey items on Non-Native culture may imply prejudice thinking (they will seem racist if they answer that way)
  • Many grandmothers were mentioned as not supporting the cultural development of participants.
    • Boarding school era
    • Influence of Western religion
  • Debates on the “right” way of doing cultural activities or using the language
  • Humbleness – those who were knowledgeable or involved often downplayed it
    • May impact survey self-reports
Challenges

• Student recruitment
  • Build closer relationship to students who show this potential
  • Assuming new program position – Human Services
  • Working space – Spring 2017

• Participant population

• Access to materials – databases, software, etc.
  • U. of Montana access

• Time for faculty researchers
  • No leave from classes
  • Moving closer
Future research

• Working definition on what involvement/engagement is:
  • Ceremonially
  • Secular
  • Consistent values (mostly family extended)
    • Reinforcement of culture
• Increasing institutional support for cultural development
  • Safe space for learning and participating
  • Promote active engagement vs. passive
  • Establish people/students who can become “mentors” for others
  • Find ways to “measure” revitalizing indigenous lifeways
Student Experience

• Joined project September 2016

• Work
  • Transcription
    • Patience
  • First reading of transcripts
    • Cultural interest/participation starts at home.
    • Older participants show more interest in trying to go back.
    • Interesting to see how participants identify themselves and historical trauma.
Student Experience

• Work
  • Personal/professional interests
    • Understand the different perspectives within the community.
    • Understanding research and calculating data.
    • Use research data to benefit the community on & off campus.
  • Learning about research
    • Participants are worried they might say/do things wrong.
    • Some participants do not show interest in cultural lifeways/history.
    • Some participants may go to cultural events/activities but do not participate.
    • A lot of participants turn to smudge or ceremony for stress relief.
Thank you!