Development and Evaluation of the American Indian Life Skills

American Indian Higher Education Consortium Meeting
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Presentation Goals

★ Review extent of the problem of Native American adolescent suicidal behavior

★ Describe a pathway to resilient adaptation that features approach coping strategies

★ Showcase an evidence-based intervention for Native youth suicide prevention
Funders

- Zuni Tribe
- Kellogg Foundation
- SAMHSA
  - Oklahoma University Health Sciences Center (D. BigFoot, PI)
  - Kauffman, Inc., Native Aspirations (J. Kauffman, PI)
  - Puyallup Tribal Health Authority (D. Reed, PI)
- Henry J. Kaiser Foundation
- Marguerite Casey Foundation
- SAMHSA
  - Oklahoma University Health Sciences Center (D. BigFoot, PI)
  - Kauffman, Inc., Native Aspirations (J. Kauffman, PI)
  - Puyallup Tribal Health Authority (D. Reed, PI)
Why are concerned?

- AI/AN males aged 15-24—the most vulnerable group.
Why are concerned?

- Suicide is ranked as the 2nd leading cause of death behind unintentional injuries for AI/ANs from ages 10 to 34.

- Estimated rate of death by suicide among AI/AN youth ages 15 to 24 ranges anywhere from 1.5 to 3 times the national average.
Suicide Attempts Among Youths as a Function of Gender and Ethnicity

One-year rates of Youth Risk Behavior Surveillance self-reported suicide attempts

Goldston et al., 2008
“The loss of family members reverberates throughout our communities, putting other family members at risk for depression, grief reactions, poor work performance, drug and alcohol use, and domestic violence as well as for the contemplation of suicide themselves.”

Dr. Charles Grimm, IHS
Acculturation Stress
Historical Trauma
Pervasive Poverty
Community Violence
Family Disruption
Interpersonal Problems
Depression
Substance Abuse
Psychological Disorder
Age/Gender

Risk Factors

介入

Proximal Mediating Factors

Outcome Variables

Stress

Avoidant Coping

Ineffective Problem Solving

Negative Thinking

Suicide

AILS Intervention

Effective Problem Solving

Positive Thinking

Resilient Adaptation

LaFromboise & Fatima, 2011
Cultural Resilience
Cultural Resilience

The Four Directions

Context  Spirit

Body    Mind

Resilience
“The closest translation of ‘resilience’ is a sacred word that means ‘resistance’ ... resisting bad thoughts, bad behaviors. We accept what life gives us, good and bad, as gifts from the Creator. We try to get through hard times, stressful times, with a good heart. The gift [of adversity] is the lesson we learn from overcoming it.”

James Clairmount, Lakota elder, quoted in B. Graham, 2001
Mainstream Perspectives on Resilience

- Personal bootstrapping
- Recovery from trauma
- Sustained competence under stress
- Invulnerability despite risk
- Interaction between protective & risk factors

![Diagram showing the interplay of protective and stress processes and their influence on individual competence across the life span.](image-url)
Resilience Through Enculturation
1. Who am I? Building self-esteem. (7)
2. What am I feeling? Emotions and stress. (9)
3. How can I communicate with others and solve problems effectively? (5)
4. How can I recognize self-destructive behavior and find ways to eliminate it? (4)
5. Why do people attempt suicide? (4)
6. How can I help my friends who are thinking about suicide? (3)
7. How can I plan ahead for a great future? (8)

LaFromboise, 1995
Working Together to Get Things Done

[Image of people painting on a wall]
Zuni Life Skills Intervention

Target Skills

Positive thinking / Problem solving

- Open communication
- Handling depression
- Stress management
- Anger regulation
- Suicide prevention
- Individual/community goal setting

LaFromboise & Hussain, 2015
Effectiveness of Zuni Life Skills

Participants
101 freshman and 27 junior students in language arts classes in Zuni Public High School
65% girls, 35% boys
14-19 year age range

81% were in the moderate to severe range on suicidal ideation at pretest
40% had a relative or friend who had died by suicide
18% reported having attempted suicide

-LaFromboise & Howard-Pitney, 1995
Effectiveness of Zuni Life Skills

Treatment vs. Control Group at Posttest

Survey
- Less hopelessness *
- More confidence in ability to manage anger *

Behavioral Role Play Study
- Better peer suicide intervention skills **
- Better peer problem solving skills¹

¹ p<.07, *p<.05, **p<.01

-LaFromboise & Howard-Pitney, 1995
How Effective Is American Indian Life Skills?

Longitudinal study of mental health status of Sequoyah High School in Tahlequah, OK reported in 2001 found:

--Reduction of a 20-year suicide rate
--No deaths by suicide since AILS implemented in early 1990s

National Center for American Indian Alaska Native Health Research
FIGURE 1—Suicide gestures, attempts, and completions among members of the Western Athabaskan Tribal Nation.

May et al., 2005
SW Tribal Nation Comprehensive Suicide Prevention Project

Integrated Program Components

- American Indian Life Skills in the school
- Counseling provided by knowledgeable and trusted laypersons in less formal settings
- Professional mental health staff and natural helpers work together as a team

May et al., 2005
SW Tribal Nation Comprehensive Suicide Prevention Project

**Integrated Program Components**

- Increased surveillance *via* constant data/information gathering
- Screening, clinical interventions, extensive outreach in conventional and unconventional settings (e.g., outdoor venues) and community functions
- Neighborhood volunteers acted as “natural helpers” to engage in peer training

*May et al., 2005*
Participants

- 122 middle school students
- 47% males, 53% females
- 11-15 year age range

At pretest

- 19.6% reported having attempted suicide
- 8.1% at the critical level on SIQ-JR

LaFromboise, Medoff, Harris, & Lee, 2007
Northern Plains Reservation
RCT of the AILS

Baseline results

19.6% made non-fatal suicide attempts (N=122)
  – 96.1% did not go to the reservation clinic, hospital, or see a doctor

Of those who had attempted suicide:
  – 21.5% of those who attempted were girls
  – 17.5% of those who attempted were boys
  – 10.8% had attempted once
  – 5.9% had attempted twice
  – 2.9% had attempted 3 or more times
  – 6.9% had attempted with the last month
  – 2.9% had attempted within the last 6 months
## Northern Plains Reservation
### RCT of the AILS

#### Reconnecting Youth

<table>
<thead>
<tr>
<th>Measure</th>
<th>Pretest (n=37)</th>
<th>Posttest (n=28)</th>
<th>10 month Follow up (n=32)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M (SD)</td>
<td>M (SD)</td>
<td>M (SD)</td>
</tr>
<tr>
<td>Hopelessness (range: 0-17)</td>
<td>4.8 (4.3)</td>
<td>3.5 (2.9)</td>
<td>2.4 (2.5)</td>
</tr>
<tr>
<td>Suicidal Ideation (range: 0-90)</td>
<td>14.0 (23.8)</td>
<td>6.8 (9.5)</td>
<td>3.7 (4.8)</td>
</tr>
</tbody>
</table>
Southwestern Partnership
Pre-Posttest Evaluation of AILS

Participants
• 90 high school students
• 40% males, 60% females
• 14-18 year age range

Native Language Spoken Often at Home
• 50% Yes
• 50% No
Southwestern Partnership
Pre-Posttest Evaluation of AILS

Examining the Effect of Time on Outcomes at Post-Test Controlling for Pretest Score

Hopelessness*
Suicide Risk *
Public Collective Esteem* (What participants believe others think about their race/ethnicity)
Self-Efficacy**
Self-Awareness***

*p<.05, **p<.01. ***p<.001
AILS Middle School Version
(30, 35 minute lessons)

1. Who am I? Building self-esteem. (2)
2. What am I feeling? Emotions and stress. (9)
3. How can I communicate with others and solve problems effectively? (6)
4. How can I cope with stress? (3)
5. Why do people attempt suicide? (3)
6. How can I help my friends who are thinking about suicide? (4)
7. How can I plan ahead for a great future? (3)

LaFromboise, 2009
Randomized Controlled Trial (RCT)
AILS Middle School Version

Participants
151 Southwestern Native Middle School students
51% males, 49% females
11-17 year age range

At pretest
17.8% reported having attempted suicide
24.1% clinically depressed (score > 26) RADS

LaFromboise & Malik, in press
### RCT of AILS--Middle School Version

#### Risk Factor Measures

**Treatment vs. Wait-List Control Group**

<table>
<thead>
<tr>
<th>Measure</th>
<th>Treatment (Gr1) (n=76)</th>
<th>Control (Gr2) (n=75)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>M (SD)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depression</td>
<td>20.17 (6.48)</td>
<td>19.12 (6.1)&lt;sup&gt;1&lt;/sup&gt;</td>
</tr>
<tr>
<td>Hopelessness</td>
<td>13.17 (3.32)</td>
<td>13.66 (3.36)&lt;sup&gt;1&lt;/sup&gt;</td>
</tr>
<tr>
<td>Suicidal Ideation</td>
<td>4.44 (.92)</td>
<td>4.27 (4.34)&lt;sup&gt;1&lt;/sup&gt;</td>
</tr>
<tr>
<td>Suicidal Behavior</td>
<td>12.14 (1.89)</td>
<td>12.00 (2.19)&lt;sup&gt;1&lt;/sup&gt;</td>
</tr>
</tbody>
</table>

(Gr1 at posttest vs. Gr2 at pre-test)

<sup>1</sup> ns

LaFromboise & Malik, in press
# RCT of AILS--Middle School Version

## Self-Efficacy Measures

**Wait-List Comparison Group Pretest vs. Posttest**

<table>
<thead>
<tr>
<th>Measure</th>
<th>Pretest (n=75)</th>
<th>Posttest (n=75)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SE</td>
</tr>
<tr>
<td>Manage Depression</td>
<td>52.2%</td>
<td>19.65</td>
</tr>
<tr>
<td>Cope with Stress</td>
<td>52.7%</td>
<td>18.93</td>
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<tr>
<td>Enlist Community Support</td>
<td>49.6%</td>
<td>10.92</td>
</tr>
<tr>
<td>Enlist Social Resources</td>
<td>56.1%</td>
<td>13.79</td>
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</table>

*p<.05, **p<.01
### Regression Models Predicting Suicidal Ideation

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
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<tbody>
<tr>
<td></td>
<td>b/se</td>
<td>b/se</td>
<td>b/se</td>
<td>b/se</td>
</tr>
<tr>
<td>Gender</td>
<td>-0.33*</td>
<td>-0.19</td>
<td>-0.13</td>
<td>-0.08</td>
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<tr>
<td></td>
<td>0.16</td>
<td>0.15</td>
<td>0.15</td>
<td>0.14</td>
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<tr>
<td>SES</td>
<td>0.68**</td>
<td>0.41</td>
<td>0.37</td>
<td>0.08</td>
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<tr>
<td></td>
<td>0.25</td>
<td>0.22</td>
<td>0.21</td>
<td>0.20</td>
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<tr>
<td>Grades in School</td>
<td>-0.14***</td>
<td>0.05</td>
<td>0.01</td>
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<tr>
<td></td>
<td>0.04</td>
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<td>Adult having an alcohol or drug problem</td>
<td>-0.04</td>
<td>-0.12</td>
<td>-0.11</td>
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<td></td>
<td>0.15</td>
<td>0.15</td>
<td>0.13</td>
<td></td>
</tr>
<tr>
<td>Sibling having attempted suicide</td>
<td>0.16</td>
<td>0.25</td>
<td>0.21</td>
<td></td>
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<tr>
<td></td>
<td>0.24</td>
<td>0.24</td>
<td>0.22</td>
<td></td>
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<tr>
<td>Verbal abuse by an adult</td>
<td>0.41</td>
<td>0.37</td>
<td>0.44*</td>
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<tr>
<td></td>
<td>0.22</td>
<td>0.22</td>
<td>0.20</td>
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<tr>
<td>Bullying in school</td>
<td>0.74***</td>
<td>0.77***</td>
<td>0.61***</td>
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<td></td>
<td>0.19</td>
<td>0.18</td>
<td>0.17</td>
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<tr>
<td>Rumors</td>
<td>0.16</td>
<td>0.07</td>
<td>-0.02</td>
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<td></td>
<td>0.17</td>
<td>0.17</td>
<td>0.16</td>
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<tr>
<td>Friend having attempted suicide</td>
<td>0.38*</td>
<td>0.34*</td>
<td>0.25</td>
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<td></td>
<td>0.17</td>
<td>0.17</td>
<td>0.15</td>
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<tr>
<td>Serious argument with a friend</td>
<td>-0.07</td>
<td>-0.02</td>
<td>-0.10</td>
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<tr>
<td></td>
<td>0.16</td>
<td>0.15</td>
<td>0.14</td>
<td></td>
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<tr>
<td>Mastery</td>
<td>-0.23*</td>
<td>-0.09</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>0.09</td>
<td>0.09</td>
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<td>Sense of School Belonging</td>
<td>-0.06</td>
<td>-0.01</td>
<td></td>
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<tr>
<td></td>
<td>0.09</td>
<td>0.09</td>
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<tr>
<td>Depression</td>
<td>0.37***</td>
<td></td>
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<tr>
<td></td>
<td>0.10</td>
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<td></td>
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<tr>
<td>Hopelessness</td>
<td>0.08</td>
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<td></td>
<td>0.10</td>
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<tr>
<td>_cons</td>
<td>0.51</td>
<td>-2.07</td>
<td>-2.32</td>
<td>-1.56</td>
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<tr>
<td></td>
<td>0.45</td>
<td>0.68</td>
<td>0.66</td>
<td>0.64</td>
</tr>
<tr>
<td>N</td>
<td>139</td>
<td>135</td>
<td>135</td>
<td>134</td>
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<tr>
<td>R-squared</td>
<td>0.17</td>
<td>0.43</td>
<td>0.47</td>
<td>0.50</td>
</tr>
</tbody>
</table>

*p<.05, **p<.01, ***p<.001
Where do we go from here?

**Desperately seeking**

500 Native American Middle School Students to conduct a RCT of AILS-Middle School Version

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Thank You!