SACRED CONNECTIONS –
A Substance Abuse Intervention with Native American Youth: Lessons and Results from a NIDA-Funded RCT

31st Annual Research & Policy Conference on Child, Adolescent, and Young Adult Behavioral Health
Tampa, Florida

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ACKNOWLEDGEMENTS
Historical Trauma

The unresolved psychological and emotional damage caused to a group of people that is passed from one generation to the next. This trauma has been caused by the effects of *genocide* inflicted on this group of people. We will look at the impact of history on the Native Americans, and how it has been passed down from generation to generation.
The focus of establishing Indian Boarding Schools in the 1800s, was to "reform the savage and amoral practices of Native people".

The motto of the Carlisle Indian School was "Kill the Indian, save the man".

• Native American, youth report higher alcohol, marijuana and other illicit drug use (e.g. 12-17 yr olds use was 26.0% compared to 10.6% use among non-Native) (Stanley, Harness, Swaim & Beauvais, 2014).

• By age 11, Native American/Alaska Native youth are more likely, compared with all other racial and ethnic groups, to have initiated substance use and to be on the path to lifelong substance abuse.

• Effective cultural appropriate interventions need to be developed and tested for Native American youth.

• A lack of understanding by health professionals has impeded development of more effective interventions (Gone, & Trimble, 2012; Goodkin et al., 2011; Knibb-Lamouche, & Institute of Medicine [IOM], 2012).
Objective of Study

The objective of the current study was to examine the effectiveness of a university-community research partnership to culturally adapt, implement and evaluate a brief evidence-based motivational substance use intervention among Native American youth in the rural South Central Region of the U.S.
Native Reliance Framework

Making Connections

Seeking Truth

Being Responsible
- Caring as Providing
  - Having an income
  - Accepting assistance for what is necessary
- Providing for Others
  - Speaking the language
  - Honoring the Creator through ceremony
  - Being accountable
  - Respecting others
  - Being present

Being Disciplined
- Seeking a Vision
  - Making decisions based on honor
  - Defending the vision
- Sharing the Vision
  - Consulting with elders
  - Accepting the vision
  - Speaking the vision in the first language

Being Confident
- Having a Sense of Identity
  - Being proud of heritage
  - Accepting tribal beliefs and values
- Having a Sense of Self-Worth
  - Overcoming personal shortcomings
  - Contributing to tribal knowledge and preserving ancient stories
Methods

• Study, “Brief Intervention for Substance Using Native Youth” (SACRED Connections; NIDA R01DA029779: Wagner, Lowe –PI’s)

• Tribal and University institution IRB processes

• Community Advisory Boards

• Randomly assigned to 3 conditions N=405
  1. Brief Advice (BA) + Personalized Feedback Report (PFR)
  2. BA + PFR + Motivational Interview (RFR+MI)
  3. BA+ PFR + MI + Booster Session (PFR+MI+ 6 month Booster)
Recruitment Flow Chart

Recruiting/Screening *
Assent Form

Getting to Know you Session

Parental Consent

Baseline**

Personalized Feedback Report (PFR) (Control)

PFR+MI (Motivational Interviewing)

(PFR+MI + Booster)

Follow-Up Assessments

3 mth

6 mth

9 mth

1 year

3 mth

6 mth

9 mth

1 year

3 mth

6 mth

Booster

9 mth

1 year

*participants recruited from 6 rural public high schools across 2 counties

**random assignment of condition
Motivational Interviewing Intervention (MI)

• A **directive**, client-centered, collaborative counseling style that **enhances motivation** for change by helping the **client** clarify and resolve **ambivalence** about behavior change.

• Goal of MI: to create and amplify discrepancy between behavior and goals.

• Motivation is a state of readiness to change.

• Each person has a powerful potential for change.
MI and “Ways of Being”

Processes of MI

- Partnership
- Acceptance
- Evocation
- Compassion

- Express Empathy
- Support Self-Efficacy
- Develop Discrepancies
- Roll with Resistance
## Baseline Characteristics

<table>
<thead>
<tr>
<th></th>
<th>Total sample (N=405)</th>
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<th>Total sample (N=405)</th>
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<tbody>
<tr>
<td><strong>Baseline Characteristics</strong></td>
<td></td>
<td><strong>Lifetime alcohol use (%)</strong></td>
<td></td>
</tr>
<tr>
<td>Mean Age (SD)</td>
<td>16.37 (1.26)</td>
<td>0 days</td>
<td>5%</td>
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<tr>
<td></td>
<td></td>
<td>1 - 2 days</td>
<td>21.2%</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td>3 - 9 days</td>
<td>24.2%</td>
</tr>
<tr>
<td>Female (%)</td>
<td>49.8%</td>
<td>10 - 19 days</td>
<td>12.8%</td>
</tr>
<tr>
<td>Grade level (%)</td>
<td></td>
<td>20 - 39 days</td>
<td>9.6%</td>
</tr>
<tr>
<td>9th</td>
<td>14.8%</td>
<td>40 - 99 days</td>
<td>9.4%</td>
</tr>
<tr>
<td>10th</td>
<td>25.4%</td>
<td>100+ days</td>
<td>3.7%</td>
</tr>
<tr>
<td>11th</td>
<td>30.0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12th</td>
<td>32.2%</td>
<td></td>
<td></td>
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<tr>
<td>Father's employment (%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full time</td>
<td>51.6%</td>
<td></td>
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</tr>
<tr>
<td>Part time</td>
<td>5.6%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Occasional</td>
<td>2.7%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unemployed</td>
<td>14.8%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mother's employment (%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full time</td>
<td>46.6%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Part time</td>
<td>8.8%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Occasional</td>
<td>1.2%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unemployed</td>
<td>25.4%</td>
<td></td>
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</tbody>
</table>
### Prevalence of Lifetime Other Drug use at Baseline

<table>
<thead>
<tr>
<th>Lifetime other drugs (%)</th>
<th>Total sample (N=405)</th>
<th>PFR (n=140)</th>
<th>PFR + MI (n=265)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marijuana</td>
<td>45.8%</td>
<td>45.7%</td>
<td>45.8%</td>
</tr>
<tr>
<td>Prescription pain killers</td>
<td>19.1%</td>
<td>24.3%</td>
<td>16.3%</td>
</tr>
<tr>
<td>Synthetic drugs</td>
<td>8.9%</td>
<td>6.4%</td>
<td>10.2%</td>
</tr>
<tr>
<td>Tranquillizers</td>
<td>8.9%</td>
<td>7.9%</td>
<td>9.5%</td>
</tr>
<tr>
<td>Amphetamines</td>
<td>5.9%</td>
<td>10%**</td>
<td>3.8%**</td>
</tr>
<tr>
<td>Inhalants</td>
<td>5.4%</td>
<td>5%</td>
<td>5.7%</td>
</tr>
<tr>
<td>LSD/Hallucinates</td>
<td>4%</td>
<td>5%</td>
<td>3.4%</td>
</tr>
<tr>
<td>Gasoline</td>
<td>3.7%</td>
<td>5%</td>
<td>5.7%</td>
</tr>
<tr>
<td>Heroin/Morphine/Opiates</td>
<td>3.2%</td>
<td>5%</td>
<td>2.3%</td>
</tr>
<tr>
<td>Methamphetamines</td>
<td>3%</td>
<td>2.9%</td>
<td>3.0%</td>
</tr>
<tr>
<td>Crack/Cocaine</td>
<td>2%</td>
<td>1.4%</td>
<td>2.3%</td>
</tr>
<tr>
<td>Ecstasy</td>
<td>1.2%</td>
<td>1.4%</td>
<td>1.1%</td>
</tr>
</tbody>
</table>

*includes those assigned to PFR+MI+Booster

**statistically significant difference by condition (p<.05)
Results

• Analysis conducted using SPSS v.20 and MPLUS

• Participants who were older (β= .32, p<.001), had unemployed mothers (β= .14, p<.05), and scored lower on Native-Reliance (β= -.74, p<.001) demonstrated greater and more frequent substance use.

• Results also revealed a statistically significant protective relationship between Native-Reliance and baseline lifetime and past month alcohol use, as well as, marijuana use.
  • After controlling for covariates:
    • for every one-unit increase in Native-Reliance, reported lifetime alcohol use at baseline decreased on average by 0.80 units (p< .001).
    • for every one-unit increase in Native-Reliance, lifetime marijuana use decreased on average by 0.78 units (p= .001).
Marijuana use at 3-month f/up

Lifetime marijuana use (Yes or No)

Baseline Native self-reliance (average scores)

Study condition (i.e. PFR vs. PFR+MI)

Main Effect Reduced Marijuana Use by Condition at 3 Month Follow-Up

Note: Exogenous variables are correlated. Age and mother’s employment were included as covariates. *p<.05; **p<.01; ***p<.001
Participant Feedback Reports

89 Students Completed Participant Satisfaction Survey
(1 year after completing intervention)

**SACRED Connections**

- **92%** Reported that the Health Educators (HE) were 'always helpful'
- **92%** Liked the materials used
- **97%** Reported that the HES were 'always caring'
- **97%** Reported that the HES were 'always accepting'
- **100%** Liked the program
- **91%** Found the program helpful
  - of which 36% found it 'very helpful'
- **98%** Reported that the HES were 'always knowledgeable'
- **97%** Reported that the HES were 'always understanding'
- **97%** Reported that the HES were 'always competent'

*FIU-BRIDGE*
Connecting Research with Communities
Discussion

- SACRED Connections represents a successful university and AI community partnership
  - Worked in tandem to culturally tailor project protocols and materials
  - Engaged tribal and community leaders as well as school administrators
  - Recruited over 400 AI youth participants

- Our preliminary findings reveal the importance of age, economics, and culture in determining substance use severity among AI/NA teens

- Preliminary results also indicate that a culturally responsive MI-based brief intervention may be effective in reducing substance use among AI youth
  - Statistically significant reductions in marijuana use at 3 month follow-up

- Findings also suggest that the Native-Reliance theory serves as an appropriate guiding framework, model, and measure for working with this population.
Thank you!