

# **Drum Assisted Recovery Therapy for Native Americans (DARTNA): Results from a Feasibility Clinical Trial**

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# DARTNA Community Advisory Board

- George Funmaker, *Lakota*
- Ben Hale, *Navajo*
- Carrie Johnson, Ph.D., *Dakota*



# Agenda



- Addressing the need for culturally responsive treatment.
- “Drum-Assisted Recovery Therapy for Native Americans (DARTNA)” developmental research overview.
- DARTNA feasibility randomized clinical trial findings



# Consequences of historical trauma on AI/AN communities.



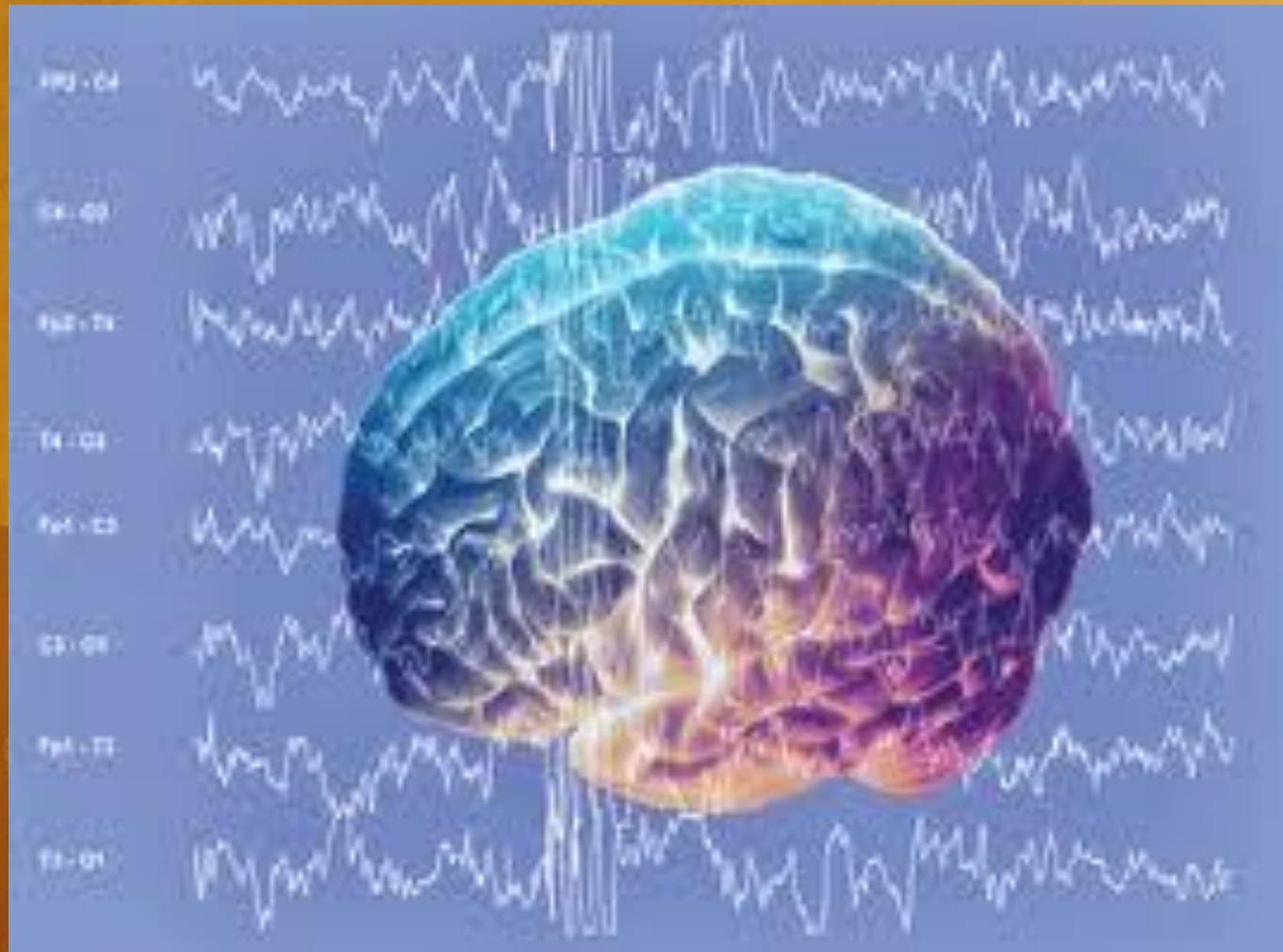
- Many U.S. historical actions, e.g., introduction of alcohol, removal and relocation acts, have resulted in fragmented AI/AN communities
- Challenges with cultural identity may contribute to increased drug and alcohol use.
- Many AI/ANs strongly believe that their problems with alcohol and other drugs stem from their sudden disconnection with AI/AN culture.
- Incorporating traditional aspects of healing has been recognized as being important in substance use recovery for AI/ANs.
- Numerous focus groups conducted within AI/AN communities report a need for more interventions that incorporate traditional practices.

# Drumming and American Indians/Alaska Natives

- Drumming is one of the most widely recognized cultural activities among American Indians/Alaska Natives (AI/ANs)
- AI/AN traditions, cultural identity, and cultural pride has survived in songs, drumming, and traditional stories
- Drumming is used in ceremonies, social dances, feasts, in preparation for hunting historically.
- A way of bringing AI/ANs together and staying clean and sober.



# Electroencephalography (*EEG*): Brain Wave Activity and Drumming



# Drum-Assisted Recovery Therapy for Native Americans (DARTNA)

DARTNA is a 6-, 12-, or 24-session program

## Session format

- **1 hour:** Education/Cultural Discussion: drumming, teaching of songs, Medicine Wheel, 12-steps, White Bison concepts
  - **1 ½ hours:** Drumming (based on local traditions)
  - **½ hour:** Talking Circle
- \*First session involves making your own drum or group drum.  
\*DARTNA is provided by a substance use provider or cultural/drumming teacher.







**WEEKS 10-12**  
STEPS 10-12 OF AA/NA

**MENTAL**

**SPIRITUAL**

**WEEKS 1-3**  
STEPS 1-3 OF AA/NA



**PHYSICAL**

**WEEKS 4-6**  
STEPS 4-6 OF AA/NA



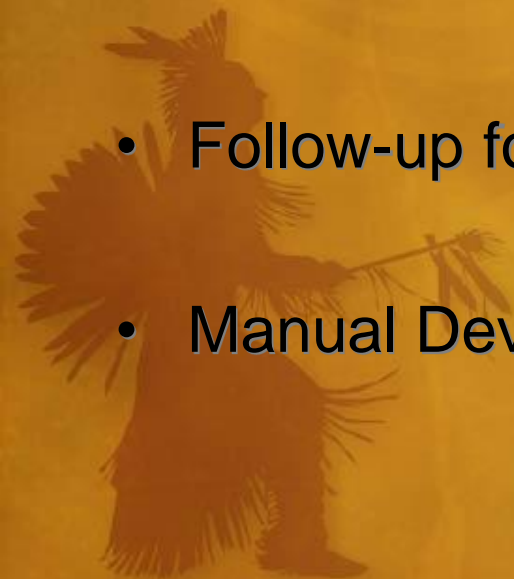
**EMOTIONAL**

**WEEKS 7-9**  
STEPS 7-9 OF AA/NA



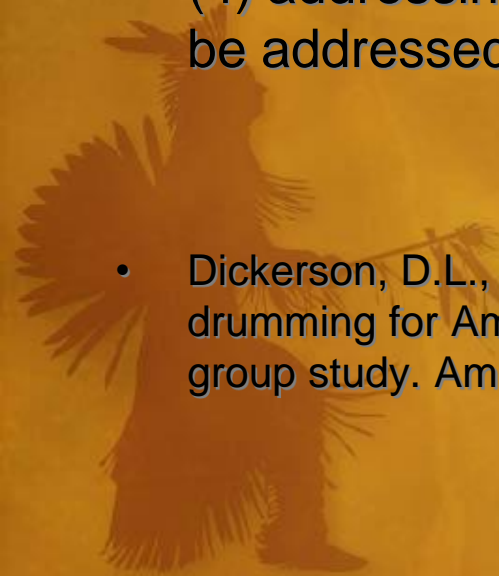
# NCCAM Primary Grant Activities

- Focus groups (treatment providers, patients, community advisory board) to discuss initial treatment format and to obtain feedback
- Pretest of DARTNA among 10 AI/ANs
- Follow-up focus group to finalize DARTNA intervention
- Manual Development.



## DARTNA focus group overarching conceptual themes

- (1) drumming can be especially beneficial for AI/ANs with substance abuse issues
  - (2) assuring a culturally-based focus is necessary as it relates to drumming for AI/ANs with substance abuse issues
  - (3) providing a treatment format which will provide a foundation of cultural ideals which cross the landscape of diverse tribes while recognizing tribal diversity is necessary
  - (4) addressing gender roles as it relates to drumming activities must be addressed within the treatment setting.
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- Dickerson, D.L., Robichaud, F., Teruya, C., Nagaran, K., Hser, Y-I. Utilizing drumming for American Indians/Alaska Natives with substance use disorders: a focus group study. *American Journal on Drug and Alcohol Abuse*. 2012; 38:505-510.



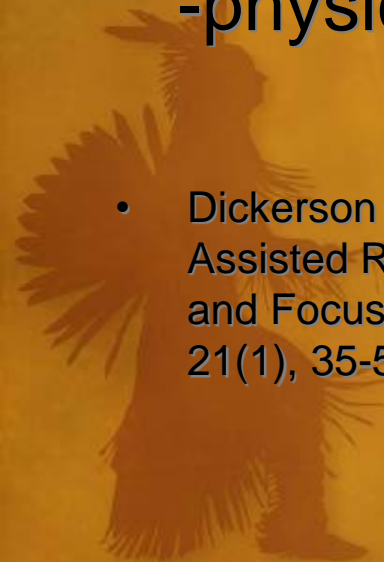
## Quote from community advisory board member

*“So we know there is a relationship with someone’s cultural identity and their substance use or other behavior problems. So there is already that relationship. So by being more connected to the culture is really going to help them whether they’ve drummed before or whether they’ve ever had any knowledge about their tribal culture. I think it’s their first step that will really help.”*



# DARTNA Pretest Findings

- Promising results suggest benefits of DARTNA in the following areas:
  - medical status
  - psychiatric status
  - spirituality
  - physical/functioning levels
- Dickerson DL, Venner KL, Duran B, Annon JJ, Hale B, & Funmaker G. (2014). Drum-Assisted Recovery Therapy for Native Americans (DARTNA): Results from a Pretest and Focus Groups. *American Indian and Alaska Native Mental Health Research*, 21(1), 35-58. Doi: 10.5820/aian.2101.2014.35.



# Feedback from participants after participating in DARTNA

- “I’m grateful it’s my time to reconnect with the cultural, traditional way of life to find out who I really am and where I come from.”
- “It’s uplifting and the drum itself is spiritual. I never thought of doing drugs or drinking.” “(I) start to feel spiritual connection. This is where I need to be, where I should be. I feel at home...”

# DARTNA feasibility randomized clinical trial (RCT)

- Funded by National Institute on Alcohol Abuse and Alcoholism (NIAAA), 2016-2019
- To determine feasibility of conducting a larger future RCT.
- To identify potential benefits of DARTNA
- We recruited 63 AI/ANs with current substance use disorder to analyze potential benefits of DARTNA.
- Thirty-eights were randomized to DARTNA and 25 randomized to Usual Care Plus.
- Baseline, end of treatment, and 3-month follow-ups collected.

# Sample characteristics (n=63)

- The age range was 20-65 years of age.
- 58 (92%) were male.
- 50 (79%) were enrolled in an inpatient rehab program.
- Approximately one-half were employed full-time during the past 3 years.
- Thirty-three tribes represented.
- Alcohol (37%), marijuana (27%), and methamphetamine (22%) were the most commonly reported substances.
- Sixty-two percent used commercialized tobacco use.
- The majority of AI/AN adults (78%) engaged in at least one traditional practice during the past month.



# Assessments

- *Urban American Indian Identity Attitude Scale*
- *Functional Assessment of Chronic Illness Therapy (FACIT)-Spiritual Questions Only-Expanded*
- *Functional Assessment of Chronic Illness Therapy (FACIT)-Fatigue*
- *Functional Assessment of Cancer Therapy-Cognitive Function (FACT-Cog)*
- *The General Alcoholics Anonymous Tools of Recovery (GAATOR 2.1)*
- *Physical Health Questionnaire*
- *Patient Health Questionnaire*
- *Generalized Anxiety Disorder-7*
- *Experiences in Close Relationships Scale-Short Form*

# Results

- End of treatment
- DARTNA participants reported significantly lower cognitive impairment and lower counts of physical ailments.
- Promising benefits among DARTNA participants related to better physical health, fewer drinks per day, and lower odds of marijuana use.
  
- 3-month follow-up
- DARTNA participants reported less adoption of 12-step principles, less cognitive impairment, and lower anxiety with relationships.
- DARTNA participants reported more drinks per day and more commercialized cigarette use.
  
- Dickerson, DL, D'Amico, EJ, Klein, DJ, Johnson, CL, Hale, B, Ye, F, Dominguez, B. Drum-Assisted Recovery Therapy for Native Americans (DARTNA): Results from a Feasibility Randomized Controlled Trial. *Journal of Substance Abuse Treatment*, *In Press*.

# What do results show?

- Drumming may help with cognition, an important component of recovery and abstinence from alcohol and other drug use.
- Ongoing participation in traditional practices, including drumming activities, may be necessary in order to help with achieving and sustaining long-term recovery.
- Opportunities to link participants with other drumming activities and cultural activities need to be further discussed within Native communities, especially in urban areas.
- DARTNA demonstrated high satisfaction levels, which suggest its ability to retain clients seeking recovery.
- Ongoing advocacy for the utilization of AI/AN traditional practices is needed.
- Need for more Native investigators and new ideas to push the field of cultural interventions forward!

# Contact Info

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