

## THERAPEUTIC INTERVENTIONS ADDRESSING PTSD, SUBSTANCE USE, AND SEXUAL RISK FOR NATIVE AMERICANS IN THE U.S.A.

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### Abstract

**Background:** Native Americans (NA) are reintroducing traditional knowledge and practices in clinical interventions to address health concerns. Multiple approaches have been taken such as “building from the ground up” or adapting westernized approaches. When the latter approach is taken, traditional ceremony and language complemented by community and cultural values are integrated into clinical practice. Cultural adaptations fall along two broad dimensions. Surface structure adaptations reflect surface aspects of a specific culture and deep structure adaptations which incorporate cultural, social, historical, environmental, and psychological factors of a population. Cultural adaptations can make western-based approaches more acceptable to other cultures for whom the intervention was not originally developed  
**Objective:** Describe the procedures and identify common processes and differences in adapting two therapeutic interventions: 1) Narrative Exposure Therapy (NET), an evidence-based trauma therapy aimed at reducing PTSD symptoms and enhancing wellness, and 2) Motivational Interviewing plus Skills Training (MIST), an evidence-based substance use reduction treatment with cognitive behavioral therapy skills training (i.e., communication skills, problem-solving, and building positive social support networks), to improve outcomes. **Method:** We followed a three-step iterative process allowing for feedback from our community advisory board (CAB,  $n=7$ ), counselors ( $n=11$  in NET,  $n=9$  in MIST), and NA clients (50 in each intervention). Acceptability was assessed through client surveys, client post-intervention debrief interviews, counselor post-training surveys, and counselor six-month follow-up surveys. **Results:** Surface-level changes included 1) incorporating guidelines for working with NA clients, 2) adjustments to the number and length of sessions, 3) reducing the complexity of the language in the treatment manual. 4) culturally tailoring the visual content and illustrations in the manual. Deeper changes included language revitalization, changing naming convention, modifying the included examples to better fit the lived experiences, and addressing historical trauma in a way that was validating for the community. **Conclusions:** NET and MIST were shown to be appropriate approaches for this community and should be considered as a treatment option for other Native American communities. Future work should consider strategies outlined in this adaption and following a similar process for working with indigenous communities to adapt and implement culturally appropriate interventions.

**Keywords:** *Native Americans, trauma symptoms, substance use, sexual risk, adapting evidence-based interventions.*

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### 1. Introduction

Native Americans (NA) are enhancing westernized evidence-based intervention for their communities through the integration of cultural knowledge and practices to address health concerns. Practices of wellbeing are embraced through ceremony and language interwoven with community and cultural values. For many tribal nations in the U.S., these successful coping skills were suppressed through the loss of ancestral homelands and language punctuated by institutionalized and structural laws against cultural practices and forced assimilation policies.(United Nations 2009) In this presentation, we describe the framework used to adapt and assess the acceptability and feasibility of two therapeutic interventions to address the “triangle of risk” factors (Simoni, Sehgal, and Walters 2004) of (a) trauma, (b) substance use, and (c) HIV risk behaviors that put Native Americans at increased risk for HIV exposure (Pearson et al. 2020).

### 2. Design

We took a tribally based participatory research approach guided by tribal Elders and community leaders to conduct a mix methods study.

### 3. Objective

To describe the procedures and identify common processes and differences in adapting two therapeutic intervention: 1) Narrative Exposure Therapy (NET), (Neuner et al. 2004) an evidence-based trauma therapy aimed at reducing PTSD symptoms and enhancing wellness, and 2) Motivational Interviewing (Venner et al. 2018) plus Skills Training (MIST), an evidence-based substance use reduction treatment with cognitive behavioral therapy (i.e., communication skills, problem-solving, and building positive social support networks), to improve outcomes.

### 4. Methods

*Setting:* The study took place at a behavioral health clinic on a rural tribal reservation.

*Ethical consideration:* Approved by the academic IRB and through the tribal review process.

*Intervention.* The NET and MIST curricula were delivered by local counselors in up to six, 90-120 minute sessions. NET's first session consisted of laying out the lifeline with rocks signifying a traumatic event and flowers signifying a positive event. The size of the rock/flower corresponded with the impact of the event. MIST consisted of 1-2 sessions of motivational interviewing (MI) and 4-5 sessions of skill building (CBT). Combining these two therapies intended to reduce ambivalence towards change via MI while unlearning negative patterns of substance use via CBT.

*Participants.* Clients were NAs aged 16 and older residing in and around tribal lands, with past-year substance use and at least sub-threshold trauma symptoms as measured by the PTSD checklist for the DSM-5. Most (90%) were members of the participating tribe. We recruited 50 participants in each study arm (NET: Mean age 36.9 years old and 76% female; MIST mean age 36.0, 74% female). Providers Eleven providers for NET (2 males, 9 females; 5 NA, 1 Latinx, 3 Caucasian and nine providers for MIST (1 male, 8 female: 4 NA, 1 Puerto Rican, 4 Caucasian).

*Cultural adaptation.* We followed a three-step iterative process allowing for feedback from our community advisory board (CAB), counselors, and Native Americans clients.

Step 1) Revised the original manuals by removing jargon and improving readability (Flesch reading ease, NET: 58.4%, MIST: 65%; and grade level, NET: 9.0, MIST: 7.8), and incorporated previous study's findings regarding length of sessions, "homework", and number of sessions. For NET there was no "homework". For MIST, we deemphasized "homework". This was replaced with brief worksheets with the main session points explained. For clients worksheets served as a reminder of their new skills at home. For counselors, the worksheet helped focus on the content during the session and decrease preparation time. Step 2) Tribal Participatory research: Community leaders/Elders ( $n=7$ ), providers for MIST ( $n=9$ ) and for NET ( $n=11$ ). For NET we held a 1-day meeting to review content and solicit feedback on the content and delivery method. The NET protocol remained mostly unchanged except for the removal of the community testimonial at the end to avoid harming others in this small community. For MIST, we held five, 2-hr CAB meetings and three, 1-hour meetings with providers. We identified the following relevant CBT skills: 1) Goal setting and substance use triggers; 2) Getting and increasing positive support; 3) Relapse prevention; 4) Communication; and 5) Negative Moods. Step 3) Counselor input during training, a 6-month follow-up to clarify concepts, materials, and fine-tune the intervention delivery.

*Measures.* Client survey: 14 items rated on a 10-point scale (ranging from 0 = not at all to 9 = extremely) assessed therapy expectations, counselor satisfaction, and acceptability of therapy format. (Ayala and Elder 2011) Two open-ended questions asked clients what they liked and what they would change to make it better. Client post intervention debrief interviews assessed counselor style, therapy approach, client outcomes, and cultural fit of treatment. Counselor post-training survey consisted of knowledge of intervention theory, core components, rationale and confidence in content delivery and treatment success, in reducing symptoms. Counselor six-month semi-structured interviews asked: how satisfied they were with the therapy; what they liked and disliked; and whether they thought therapy helped their clients in several domains and usefulness of the weekly supervision.

*Data analysis.* Completion rates: Client survey, NET ( $n=44$ , 88%) and MIST ( $n=39$ , 78%) and debrief interviews, NET ( $n=18$ , 36%) and MIST ( $n=20$ , 40%). Counselor post training and 6-month surveys: NET ( $n=11$ , 100%) and MIST ( $n=9$ , 100%).

### 5. Results

*Surface structural adaptations* to both interventions: 1) Presented guidelines for providers on working with NA clients; 2) Adjusted the number and length of sessions; 3) Reduced the complexity of language used in the treatment manual; 4) Culturally tailored the visual content and illustrations in the manual; 5) incorporated greater protections for confidentiality in a small community; and 6) Included information about linkages to traditional and cultural support systems. The decision to limit the number of

sessions to six was decided by the team; a priori to balance busy provider schedules and difficulties with getting clients into sessions. However, this is a deviation from how NET is typically delivered (i.e., 8-10 sessions) and required counselors and participants choose the most impactful traumatic and positive memories to process in each session. Preferring more time in session and a longer course of treatment was mentioned in the qualitative feedback from some participants, which suggests, that this may be a place where number of sessions is allowed to be more flexible in response to individual participant needs. *Deep structural adaptations*. For MIST: 1) We focused on language revitalization with the incorporation of the Nine Virtues of Níix Títáwaxt guided by the CAB for their appropriate use; 2) changed the naming conventions (e.g., goal setting was renamed as “personal vision”; “assertiveness” to “honoring your vision”) and treatment rationale. As the CBT component was skill based, clients chose the order that skills were developed, thus affirming client autonomy and control. For NET, we modified the examples to better fit the lived experiences of this tribe; 2) We addressed historical trauma in a way that was validating for the community but stayed within the core principles of NET; and 3) We added culturally acceptable ways to process recent deaths while still allowing for emotional processing of those traumatic memories. These adaptations required changes in therapy implementation but did not require changes in the basic approach of NET. For example, the lifeline was still utilized, and memories were still processed systematically, but individuals did not have to speak explicitly about the identity of someone who had died recently to align with cultural traditions. A novel approach was that historical trauma was processed as the memory of when one learned about those events, rather than being ignored or being processed as if one had experienced the event itself, neither of which would have been consistent with NET’s focus on processing and integrating significant autobiographical memories.(Elbert, Schauer, and Neuner 2015)

## 6. Discussion and conclusion

NET and MIST were shown to be appropriate approaches for this community.(Walker et al. 2023; Bedard-Gillgan et al. 2022) Overall, the adapted forms of NET and MIST were favorably received by the participants, and the implementation appeared to be feasible, with improved retention over past trials of culturally adapted treatments for trauma and substance misuse with this community and with highly positive satisfaction ratings and feedback. Traditional practices are a source of strength for NA communities and the adaptation framework used for both interventions present a model of successfully leveraging some of these practices into (a) a trauma-specific intervention as well as (b) an MI and CBT-based intervention. For NET, the use of a tactile intervention, without explicit written between-session practice, and with a foundation based on oral storytelling may have increased the cultural fit of the intervention for this community. Future work may consider strategies outlined in this adaption as well as following a similar process for working with indigenous communities to adapt and implement other culturally appropriate interventions.

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