agencies, and events throughout the Fond du Lac community every week. Outreach efforts seek not only to recruit participants, but to increase awareness of the program within the community. Stakeholders noted that ongoing outreach is essential; as one said, “It’s not a one-time effort, it has to be done over and over.” Awareness in the community helps increase confidence and credibility in the program.

6. Traditional Tobacco Education

Tobacco has a complex history for AIs. AIs have used traditional tobacco in ceremonies and daily life for centuries, a use that has been corrupted by commercial tobacco. Many AIs are disconnected from traditional tobacco due to decades of cultural suppression within mainstream society in the U.S. Some are unfamiliar with traditional tobacco customs. This situation creates special challenges for programs that seek to help Native people discontinue commercial use. Thus, it is important to incorporate traditional tobacco teachings into the Wiidookowishin curriculum. Many stakeholders feel especially strongly about this issue, and believe an important function of cessation programming is to seek to restore traditional tobacco customs among Fond du Lac members, as these customs are part of their history and culture. Although a number of participants do not observe traditional use and do not feel it is useful to them personally, in general participants feel that having information on traditional tobacco is important in programming, and should be available for any who need it.

This finding demonstrates the complexity of traditional tobacco use among tribal members, and is another indication that the flexibility of the program to adjust to individual needs is valuable. Regardless of the amount of emphasis on traditional tobacco in the curriculum, it is important that the information is available and that the tobacco health educator delivering services understand traditional use.

7. Curriculum Tailored to Fond du Lac

Stakeholders were often aware of the history of the Wiidookowishin curriculum and of the fact that Fond du Lac members had helped to adapt the curriculum to include Ojibwe language and stories as well as traditional tobacco teachings. This knowledge enhances the program’s credibility among stakeholders and makes them feel more confident about referring people. Stakeholders feel this tailored approach is an important element that improves the program. (Participants were not likely to know that the curriculum was adapted from a mainstream program, so this issue was not explored with participants.)

8. Tobacco Health Educator who is AI and from the Community

It matters to many participants and stakeholders that the current and past tobacco health educators are AI and are from the Fond du Lac community. Many participants and stakeholders know both the current and previous tobacco health educators and, while many believed the position could be filled by an outsider, as several people who work at Min No Aya Win are non-Native, all agree it would take an outsider much longer to gain trust, if s/he could do so at all. Previously, the program did have two non-Natives in this role; the lead health educator shared that they were unfamiliar with traditional tobacco and with the community's history and culture, which created an additional barrier to gaining trust. Participants feel that a tobacco health educator from the community knows and understands their concerns and is more likely to be nonjudgmental, thereby increasing trust.

It should be noted that many of the pharmacists are not Native, but have successfully gained the trust of community members because of their longevity within the community. However, some pharmacists interviewed said they often felt that their services might be more effective if provided by a Fond du Lac member. They also felt ill-equipped to provide information on traditional tobacco.

9. NRT and Medications; Required Participation in Cessation Counseling

The Wiidookowishin program offers a variety of aids to help participants who are trying to stop smoking: Nicotine gum, patches, Chantix, Wellbutrin, and other cessation aids are available at no cost. Participants are required to enroll in cessation counseling as a condition of receiving those aids. Participants feel these aids are very important, since they often try several until they find one that works for them. Being able to obtain them at no cost eliminates any barriers participants might face due to insurance limits or inability to pay, and removes any stigma that might be associated with limited resources. Pharmacists are familiar with research that shows that cessation medications are more effective if combined with counseling (Fiore et al., 2008). The type of cessation aid provided is based on a variety of considerations. In some cases, doctors or pharmacists make recommendations for some participants based on medical history or condition; in others, the tobacco health educator works with participants to help them select a cessation aid that fits their preferences and needs.

10. Pharmacists Engaged in Providing Cessation Services

Pharmacists provide cessation counseling at all three locations, and receive training so they can carry out cessation services and implement the curriculum. While Min No Aya Win and CAIR are served by a full-time tobacco health educator, there is no designated position to provide counseling or outreach at the metro pharmacy, so the pharmacists fit participants in around their normal duties. They have a high level of commitment to cessation, and cessation counseling fits well with other

advice they provide (e.g., nutrition, diet, exercise, diabetes prevention). The pharmacists are often a point of entry to cessation, because counseling is a requirement to get NRT and other cessation-related medication prescriptions filled, so their buy-in is important. Having pharmacists trained to provide cessation counseling expands the options available to participants and helps provide support for those with complicated medical histories.

Limitations

This evaluation examined participants who were currently enrolled in and/or participating in the Wiidookowishin program. Thus, a limitation of this evaluation is that we did not have the opportunity to interview individuals who had chosen *not* to participate in cessation services. There may be reasons some people decline to receive services that could further inform program outreach and implementation, or barriers that we were unable to identify by limiting our sample to participants.

Program enrollment data were obtained from reports to the funder by Fond du Lac staff. While participants at the Min No Aya Win and CAIR clinics are primarily Fond du Lac members, the metro pharmacy serves all AIs in the metro area and is not exclusive to Fond du Lac members; data on tribal membership was not available, but it is reasonable to assume that many of the urban participants are not Fond du Lac members. Projected estimates of smokers were based on statewide data, because data specific to Fond du Lac are not available. Despite these limits, enrolling 1,191 participants in 8.5 years is a laudable level of participation.

We also were unable to compare Fond du Lac's experience with other tribal settings. A future evaluation might consider examining a setting where enrollment had been less successful, to determine areas where efforts were similar or different. While the experience of the Wiidookowishin program seems to hold valuable lessons for others attempting to design and provide cessation services for AIs, this evaluation is specific to Fond du Lac's experience.

Recommendations

Many of the elements that our evaluation identified as important to Wiidookowishin's success in connecting people to services might be applicable to program planning in other communities, including non-AI communities. However, they are of special importance in AI settings where issues around historical trauma and sovereignty are especially salient. Tribal ownership and control, cultural tailoring of the curriculum, and restoration of traditional tobacco are integral to work in AI settings.

Recommendations for program providers: The Wiidookowishin program indicates that at least ten elements are important to successful implementation of cessation programming in tribal settings. Tribal control and administration are important—tribal members need to feel confidence and trust

in the agency providing services. The systemic commitment to commercial tobacco cessation—specifically, integration of referrals from various providers—underlies the Wiidookowishin program's success. Programs that start without a strong level of commitment to cessation may not be as successful. The program should have the flexibility to be individualized to participant needs. Tobacco health educators should be flexible, willing to adjust schedules, and available between regular sessions to support and encourage participants. Ongoing outreach needs to be included to increase awareness among both potential participants and providers who may make referrals. The program needs to reflect the community by incorporating traditional tobacco teachings, adapting the curriculum to reflect the community to build trust and credibility, and hiring tribal community members. The program should provide a variety of medications and therapies for participants and remove cost as a barrier. Pharmacists should be engaged in providing services—their expertise makes them credible providers, and cessation fits with other advice they provide.

Recommendations for funding agencies: As the Wiidookowishin program has developed over the years, a close collaboration between the program funder (ClearWay Minnesota℠) and Fond du Lac Human Services has been important to the program's success. The funder has been flexible and has allowed Fond du Lac time to plan, revise the curriculum, and refine the cessation program. Further, Fond du Lac was given the opportunity to brand its own services in ways that were culturally appropriate and important to the community. When staffing transitions occurred, the funder allowed adjustment on grant timelines and deadlines that gave necessary assurance that the program would continue. Some funding agencies, especially government-based funders, might not have been able to be this flexible, but for new programs in tribal settings, this flexibility can be essential to successful program development, planning, and implementation.

Recommendations for future research: The disproportionate impact of commercial tobacco points to the need for more information on commercial tobacco cessation for AIs. Little research exists on culturally tailored programs, or the effectiveness of these programs compared to the mainstream programming that is most prevalent. This evaluation was limited by available resources, but still went beyond what program staff could have undertaken without outside funding for this purpose. Future evaluations should examine barriers to learn more about those who do not enroll in programs or those who begin a program but do not complete it.

CONCLUSION

It is essential that effective programs continue to address the impact of commercial tobacco use in AI communities. The Wiidookowishin program has demonstrated that a tailored program can be successful at helping tribal members stop smoking, and this evaluation identified several elements that contributed to success of the program. These findings may be valuable for program developers and funders to consider when attempting to implement a commercial tobacco cessation program in a tribal setting.

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DRUM-ASSISTED RECOVERY THERAPY FOR NATIVE AMERICANS (DARTNA): RESULTS FROM A PRETEST AND FOCUS GROUPS

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Abstract: Drum-Assisted Recovery Therapy for Native Americans (DARTNA) is a substance abuse treatment intervention for American Indians/Alaska Natives (AI/ANs). This article provides results from 1) an initial pretest of DARTNA provided to 10 AI/AN patients with histories of substance use disorders, and 2) three subsequent focus groups conducted among AI/AN DARTNA pretest participants, substance abuse treatment providers, and the DARTNA Community Advisory Board. These research activities were conducted to finalize the DARTNA treatment manual; participants also provided helpful feedback which will assist toward this goal. Results suggest that DARTNA may be beneficial for AI/ANs with substance use problems.

INTRODUCTION

Substance abuse among American Indians/Alaska Natives (AI/ANs) is a significant and long-standing public health problem in the U.S. Based on data retrieved from 2004 to 2008 from the National Survey on Drug Use and Health, rates of past month binge alcohol use and illicit drug use for adults were higher among AI/ANs than the U.S. national averages (30.6% vs. 24.5% and 11.2% vs. 7.9%, respectively), although the rate of past month alcohol use for adults was lower among AI/ANs than the national average (43.9% vs. 55.2%; Substance Abuse and Mental Health Services Administration, Office of Applied Studies, 2010). While the etiology of substance use disorders is complex, the shortage of treatment approaches that are congruent with AI/AN cultural values, traditions, and customs is a known barrier to care and negatively influences treatment seeking for AI/AN populations (Duran et al., 2005; Oetzel et al., 2006). For example, in two large community-based studies conducted in California (Dickerson, Johnson, Castro, Naswood, & Leon, 2012; Native American Health Center, 2012), AI/AN community members, substance abuse treatment providers/

administrators, and AI/AN elders expressed the importance of utilizing traditional-based practices (e.g., drumming, sweat lodge ceremonies, prayer, sage picking) for AI/ANs with substance use disorders and believed that a shortage of formalized treatment approaches integrating these practices contributes to high rates of substance abuse among AI/ANs.

A widely held theory regarding the etiology of the disproportionate rates of substance abuse and other health disparities between AI/ANs and other racial/ethnic groups is *historical trauma* (Brave Heart, 2005; Duran & Duran, 1995; Johnson, 2006). Historical trauma refers to the forced relocation of AI/ANs from Native lands, broken U.S. treaties, forced placement into boarding schools, and other policies of the "civilizing mission" that sought to eradicate Native ways of life and instill Western religion and culture. These events resulted in anomie, disenfranchisement, poor economic conditions, and loss of a cultural base and cultural identity, all of which have contributed to deleterious health behaviors and health disparities. Variants of this theory of historical trauma, which attempt to capture colonialism's role in the etiology of illness and distress, are widespread throughout colonized peoples worldwide (Alexander, 2004; Alexander, 2012; Eyerman, Alexander, & Breese, 2011). Furthermore, many AIs strongly believe that their problems with alcohol can be traced to their sudden disconnection from traditional AI culture in modern U.S. history (Duran & Duran, 1995; Spillane & Smith, 2007). Consistent with this theory is the call for more resilience-based, positive psychology approaches to treatment and prevention in Indian Country. Thus, the development of culturally relevant substance abuse treatment interventions that incorporate traditional-based healing has the potential to attract more AI/ANs into treatment, which may aid in the optimizing of substance abuse treatment outcomes in these populations.

Drumming is one of the most recognizable and important activities symbolizing tribal cultures throughout the U.S. and the world. Historically, drumming has been used for many important social occasions and sacred ceremonies (e.g., hunting ceremonies) and in conjunction with the expression of stories and traditions. Drumming continues to be viewed as a source of healing and community cohesion among many AI/AN tribes. In addition to its culturally relevant benefits among AI/ANs, several studies have demonstrated physical and psychological effects associated with drumming (Bittman et al., 2001; Reuer, Crowe, & Bernstein, 1999; Winkelman, 2003). However, to our knowledge, no federally funded research has been conducted to develop and empirically evaluate a formal approach to substance abuse treatment centered on drumming for AI/ANs.

DRUM-ASSISTED RECOVERY THERAPY FOR NATIVE AMERICANS (DARTNA)

Drum-Assisted Recovery Therapy for Native Americans (DARTNA) is a culturally relevant, tribally adaptable drum behavior therapy that was developed initially by the first author and Francis Robichaud, C.A.D.C. II for AI/ANs with substance use disorders (Dickerson, Robichaud, Teruya,

Nagaran, & Hser, 2012). This treatment incorporates drumming, talking circles, the 12 steps of Alcoholics Anonymous (A.A.)/Narcotics Anonymous (N.A.), and *The Medicine Wheel and 12 Steps* program developed by White Bison Inc. (2007), within the conceptual framework of the Medicine Wheel, which is widely utilized as an integrative approach to health and wellness for AI/ANs (Dapice, 2006). However, DARTNA incorporates drumming as its primary focus of treatment.

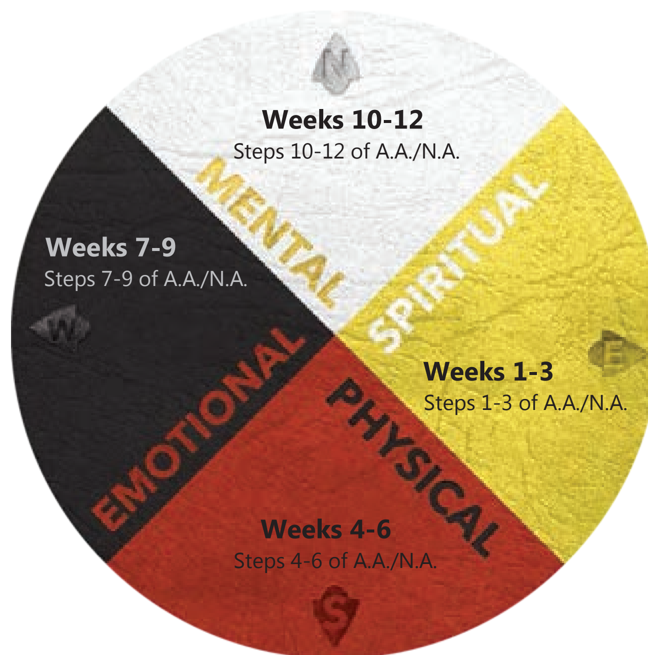
The nearly finalized DARTNA treatment protocol consists of 3-hour treatment sessions, provided 2 times per week over a 12-week period (see Figure 1). DARTNA is provided by an AI licensed substance abuse treatment provider and a cultural leader. Each week sequentially focuses on a step of A.A./N.A., starting with Step 1 in Week 1 and ending with Step 12 in Week 12. The protocol and educational focus is separated into four parts corresponding to each of the four quadrants of the Medicine Wheel (See Figure 1). While there are numerous meanings ascribed to the Medicine Wheel, in our intervention, the first three weeks correspond to the teachings of the Eastern quadrant (spiritual focus), weeks 4-6 correspond to the Southern quadrant (physical focus), weeks 7-9 correspond to the Western quadrant (emotional focus), and weeks 10-12 correspond to the Northern quadrant (mental focus). We begin the intervention with a focus on the spiritual dimension to allow participants the opportunity to learn about the sacredness of drumming and to align their recovery process with a Higher Power. During the first session, participants make their own drums, which they will use throughout the intervention. This creative and generative element is offered to participants as both a therapeutic activity and an educational opportunity to learn the cultural significance of drum making and to facilitate their own personal connection to their AI/AN identity and commitment toward recovery. This initial conceptualization preceded the discussions outlined in this article, which relate to the core DARTNA educational components: (1) drumming education, (2) drumming activities, (3) gender roles, (4) *The Medicine Wheel and 12 Steps* education, and (5) linkages to drumming within the community.

DARTNA Developmental Study Overview

The refinement and testing of the DARTNA treatment protocol was funded by the National Institutes of Health/National Center for Complementary and Alternative Medicine. The developmental study consisted of three key phases: (1) focus groups among AI/ANs with histories of substance abuse, substance abuse treatment providers, and the DARTNA community advisory board (CAB) to review and enhance the treatment protocol; (2) an initial pretest of DARTNA among 10 AI/ANs; and (3) three follow-up focus groups (with many of the same participants, although the composition of the substance abuse treatment provider focus group differed).

Figure 1

DARTNA Medicine Wheel



The DARTNA CAB consisted of four individuals who are respected cultural leaders, elders, drummers, or community leaders in the Los Angeles AI/AN community. These individuals have substantial knowledge and/or expertise and community credibility related to AI/AN drumming, AI/AN traditions, and the treatment needs of AI/ANs with substance use disorders. Two of the four CAB members were recognized AI cultural leaders in Los Angeles County: Benjamin Hale (Navajo) and George Funmaker (Ho-Chunk/Dakota); they also served as the DARTNA pretest providers. The third CAB member was a well-recognized mental health leader both locally and nationally. The fourth CAB member was a well-respected cultural leader within the Los Angeles County AI/AN community. The CAB listened to responses from the first two focus groups (conducted among AI/ANs with histories of substance abuse and substance abuse treatment providers) and provided their own input in order to synthesize the information and arrive at potential strategies to deliver DARTNA in a culturally appropriate manner.

The first set of focus groups was conducted to review the preliminary DARTNA treatment protocol and to enhance it for a subsequent initial pretest. Overall, there was consensus among the focus group participants that DARTNA represents a potentially beneficial and powerful, culturally appropriate substance abuse treatment intervention for AI/ANs (Dickerson, Robichaud, et al., 2012).

The purpose of this article is to provide findings from the second and third components of the DARTNA developmental study: the DARTNA pretest and the three follow-up focus groups. Feedback obtained from DARTNA pretest and the follow-up focus groups will facilitate the necessary refinements to the DARTNA treatment manual for a subsequent study.

METHODS

The study protocol was reviewed and approved by the University of California, Los Angeles Institutional Review Board.

DARTNA Pretest

The DARTNA pretest was conducted between December 2011 and February 2012. DARTNA pretest participants were recruited via flyers posted in clinics and community organizations serving AI/ANs in Los Angeles County. Eligibility criteria included (1) meeting Diagnostic and Statistical Manual of Mental Disorders (American Psychiatric Association, 2000) criteria for current or past alcohol or drug abuse or dependence, (2) having at least one quarter AI/AN heritage (self-identified), (3) being at least 18 years old, and (4) reporting no psychiatric or medical conditions that would preclude focus group participation. Such conditions included requiring inpatient rehabilitation treatment, having significant psychiatric disorders not stabilized by medication, requiring medical detoxification, or having significant medical problems as determined by trained research assistants and the first author of this article (a licensed, board-certified addiction psychiatrist). No potential participants were excluded due to these criteria. A total of 11 participants were recruited into the DARTNA pretest; one moved out of the area within the first week and was excluded. The DARTNA research assistant provided a complete description of the study to the participants and obtained written informed consent (participants consented to both the DARTNA pretest and follow-up focus group simultaneously). The final 10 participants were provided the 12-week DARTNA treatment protocol at a health clinic serving AI/ANs in Los Angeles County.

DARTNA Pretest Participants

Table 1 describes the demographic characteristics of DARTNA pretest participants. Five participants were male and five were female. Ages ranged from19-71 years. Education level ranged from 10th grade to some college. Eight participants reported alcohol as their drug of choice, and two reported marijuana as their drug of choice. With regard to marital status, five were divorced, four were single, and one was married. Six were employed (either full time or part time), three were unemployed, and one was on disability.

Table 1
Substance Abuse Patient, Substance Abuse Treatment Provider, and DARTNA Community Advisory Board (CAB) Characteristics - Pretest and Focus Groups

Characteristics	DARTNA Pretest	Focus Groups		
	AI/AN Patients w/ Past or Current Substance Use Disorders (*N* = 10)	AI/AN Patients w/ Past or Current Substance Use Disorders (*N* = 4)	Substance Use Treatment Providers (*N* = 7)	DARTNA CAB (*N* = 4)
Gender				
Male	5 (50.0%)	2 (50.0%)	1 (14.3 %)	2 (50.0%)
Female	5 (50.0%)	2 (50.0%)	6 (85.7%)	2 (50.0%)
Average age in years	52.5	52.3	48.8	47.8
AI/AN	10 (100.0%)	10 (100.0%)	4 (57.1%)	10 (100.0%)
Bachelors degree or above	2 (20.0%)	0 (0.0%)	6 (85.7%)	1 (25.0%)
Average substance use experience in years	n/a	n/a	11.4	10.5

DARTNA Pretest Study Measures

The following measures were collected by the DARNTA research assistant from each pretest participant, in order to analyze the potential benefits of DARTNA as it relates to treatment retention/completion, substance use, psychiatric status, medical status, social functioning, spirituality, physical/functioning levels, cognition, cultural identity, and 12-step adoption. These assessments were collected anonymously, in person, using paper-and-pencil; forms continuity was ensured with the use of identification numbers for each participant.

Treatment retention and completion: This was defined as the number of days attending DARTNA sessions from the first session to the end of the intervention.

Substance Use Report (SUR): This questionnaire was used to obtain the quantity and frequency of substance use (opiates, cocaine, alcohol, marijuana, amphetamines, sedatives, phencyclidine, and prescription medications) by participants. The information was elicited by study staff using a modified "timeline follow-back" method, which asks about most recent use, then use during the prior day, then the day before that, recalling backward until the day of the last visit (Sobell & Sobell, 1992). We collected the treatment retention and completion and SUR information upon beginning the DARTNA pretest and at every clinical encounter thereafter.

The following assessments were given at baseline, at 6 weeks, and upon completion of the DARTNA pretest at 12 weeks:

Addiction Severity Index, Native American Version (ASI-NAV): The ASI-NAV is an adaptation of the ASI developed to accommodate AI/AN cultural practices (Carise, Wicks, McLellan, & Olton, 1998). It was used to assess severity in each of eight problems areas: alcohol use, drug use, employment/support status, family/social relationships, legal status, psychiatric status, medical status, and spiritual and ceremonial practices (Carise & McLellan, 1999). The ASI has been shown to have good reliability and validity among various populations (Grissom & Bragg, 1991; Kosten, Rounsaville, & Kleber, 1983; McLellan et al., 1985).

Functional Assessment of Chronic Illness Therapy (FACIT)-Spiritual Questions Only-Expanded: This 23-item spirituality scale measures comfort and strength derived from one's spiritual beliefs or connection to God or a Higher Power (Brady, Peterman, Fitchett, & Cella, 1999). This scale includes three subscales (meaning/peace, faith, and Sp12 total [meaning/peace + faith scores]), and 11 additional questions. This measure has demonstrated high reliability among diverse population samples (Bormann et al., 2009), including a small but representative AI/AN sample (Bormann et al., 2006).

Functional Assessment of Chronic Illness Therapy-Fatigue (FACIT-F), (Version 4: This 40-item scale includes five subscales that measure areas associated with physical well-being, social/family well-being, emotional well-being, functional well-being, and additional concerns, which covers fatigue-related questions (Fisk, Ritvo, & Ross, 1994). The FACIT-F Trial Outcome Index (TOI) is the sum of the physical well-being, functional well-being, and additional concerns subscales. This scale has demonstrated good reliability and internal consistency (Hwang, Chang, & Kasimis, 2003; Yellen, Cella, Webster, Blendowski, & Kaplan, 1997) and good validity (FACIT.org, 2013), and has been used with various populations and translated into 57 languages although, to our knowledge, its reliability and validity have not been established for AI/ANs.

Functional Assessment of Cancer Therapy-Cognitive Function (FACT-Cog), Version 3: This 37-item cognitive function scale measures areas associated with cognitive function, including perceived cognitive impairments, comments from others (i.e., observations by others regarding cognition), perceived cognitive abilities, and impact on quality of life (Wagner, Sweet, Butt, Lai, & Cella, 2009). Although cancer related, this assessment was chosen because it contains direct questions relating to cognitive function. This measurement has demonstrated good validity and reliability, and has been used successfully with diverse ethnic populations (Cheung, Lim, Shwe, Tan, & Chan, 2013) although, to our knowledge, its reliability and validity have not been established for AI/ANs.

American Indian/Alaska Native Cultural Identity Scale**:** This 11-item survey measures the importance to respondents of areas associated with AI/AN cultural identity, such as attending traditional activities/events, maintaining AI/AN cultural identity and traditional ways, and participating in traditional ceremonies. With permission, we created this scale using items derived from questionnaires used in two prior research studies analyzing AI/AN cultural identity (Beals, Manson, Mitchell, & Spicer, 2003; Gossage et al., 2003).

The General Alcoholics Anonymous Tools of Recovery (GAATOR 2.1): This instrument was used to measure adoption of the prescribed A.A. 12-step principles and practices (Tonigan, Miller, & Montgomery, 1994). The total GAATOR score has shown good to excellent internal consistency, significant association with increased abstinence, and good internal reliability (Montgomery, Miller, & Tonigan, 1995; Tonigan, Miller, & Vick, 2000). This assessment also has been used successfully in a study analyzing 12-step program attendance, attrition, and outcomes among urban AIs (Tonigan, Martinez-Papponi, Hagler, Greenfield, & Venner, 2013).

The Brief Symptom Inventory (BSI): This instrument is the abbreviated version of Symptom Checklist-90-R and was used to assess nine physical and psychiatric symptom dimensions, summarized into three global indicators of distress (Derogatis & Melisaratos, 1983). It is a 53-item self report measure that uses a 5-point Likert scale. The BSI has demonstrated good internal reliability (Derogatis, 1993). All of the subscales (except for the psychoticism subscale on the BSI's parent instrument) have high construct reliability (Derogatis & Cleary, 1977) and good convergent validity (Derogatis, 1982). The BSI has also been used successfully in a study conducted among AI/ANs (Westermeyer et al., 2009).

To our knowledge, clinical thresholds for these assessments used in our study have not been determined.

DARTNA Pretest Data Analysis

The main analyses were *t*-tests to compare measures at intake and follow up, and analysis of variance (ANOVA) for measures with two follow-up time points. ASI composite scores at intake and follow up were compared with paired *t*-tests; FACIT-F subscores were calculated for the baseline, week 6, and week 12 assessments and were compared using ANOVA.

Follow-up Focus Groups

Three follow-up focus groups were conducted among (1) DARTNA pretest participants, (2) substance abuse treatment providers serving AI/ANs, and (3) the DARTNA CAB. The focus groups were conducted during April and May 2012.

The purpose of the focus groups was to obtain and discuss participant impressions of DARTNA in order to determine its cultural appropriateness and acceptability, to assess the feasibility of delivering the DARTNA treatment protocol, and to obtain feedback on the core educational topics: (1) drumming education, (2) drumming activities, (3) gender roles, (4) *The Medicine Wheel and 12 Steps* education, and (5) linkages to drumming within the community.

Although the substance abuse treatment providers in the second focus group did not deliver the DARTNA treatment protocol, we conducted this focus group to obtain viewpoints from providers who work on a daily basis with AI/ANs and have expertise with regard to their substance abuse treatment needs.

Due to the sacred nature of AI/AN drumming and the respect historically given to the drum in AI/AN cultures, including the importance of being sober at the drum, procedures for Breathalyzer tests to ensure participant sobriety during drumming were discussed among the substance abuse treatment providers and the DARTNA CAB. Specifically, we sought feedback from these focus groups with regard to addressing positive Breathlyzer tests among DARTNA participants.

Focus Group Recruitment

AI/ANs with current or past substance use disorders who participated in the DARTNA pretest were invited to participate in the follow-up focus group. Therefore, formal recruitment was not needed for this focus group. All 10 participants were eligible, but only 4 were able to participate.

Substance abuse treatment providers were recruited for the follow-up focus group via flyers distributed in clinics serving AI/AN clients in Los Angeles County and in one large AI/AN community center in the county. This focus group was not comprised of the same individuals as the first substance abuse treatment provider focus group. Inclusion criteria included (1) being a substance abuse treatment provider as well as a certified alcohol and drug counselor, social worker, counselor, psychologist, or physician; and (2) having experience providing substance abuse treatment to AI/ANs in the Los Angeles area. A total of seven substance abuse treatment providers responded, all of whom were deemed eligible to participate and were able to attend the scheduled focus group. Input and experiences retrieved from the preceding DARTNA pretest participant focus group were incorporated into the discussion prompts and questions asked during this focus group. Following an overview of the DARTNA intervention, focus group members were asked to provide their impressions of the participants' experiences, and then to provide feedback regarding the core educational components as well as Breathalyzer procedures.

The third focus group was conducted with the DARTNA CAB. All four CAB members were available to participate.

Our research approach utilizes elements of the community-based participatory research method; that is, it is a collaborative approach in which community partners and members assist in the development of DARTNA. For example, the two CAB members who served as DARTNA pretest providers also contributed to the writing and review of this article. As a result, we believe that our strategy increases the validity of our research, establishes community trust, and has the potential to guide the development of DARTNA in order to provide a culturally appropriate substance abuse treatment intervention for AI/ANs.

Focus Group Participants

Table 1 describes the demographic characteristics of the focus group participants (four DARTNA pretest participants, seven substance abuse treatment providers, and four DARTNA CAB members). Among the pretest participants, half (2/4, 50%) were female. Among the substance abuse treatment providers, females constituted the majority of the sample (6/7, 86.7%) and, among the CAB, half of the sample (2/4, 50%) consisted of females. The average age was 52.3 years among the pretest participants, 48.8 years among the substance abuse treatment providers, and 47.8 years among the CAB. With regard to education level, all of the pretest participants had less than a bachelor's degree. Among substance abuse treatment providers, the majority had at least a bachelor's degree (6/7, 85.7%) and one quarter of the CAB had at least a bachelor's degree (1/4, 50%). The average length of time in the substance abuse field was 11.4 years among substance abuse treatment providers and 10.5 years among the CAB. Tribal affiliation was not obtained in order to protect the confidentiality of participants.

Focus Group Data Collection

All three focus groups were held at the same treatment program in the Los Angeles area, followed identical procedures, and included similar discussion topics. However, some questions were added or emphasized based on information from the previous focus groups. The focus groups were moderated by the first author of this article and his assistant. After the consent form was reviewed and questions were answered, those who did not wish to participate were free to leave the group, although none chose to do so. Each focus group lasted approximately 2 hours, and participants were given a $40 gift card for their participation. The focus groups were audio recorded (with participant consent) and later transcribed. One research team member took written notes during the discussions.

Focus Group Data Analysis

The principal aim of the focus groups was to obtain participants' impressions of DARTNA and then to obtain specific information to aid in the finalization of the DARTNA treatment manual. In order to achieve this goal, a code list was developed based on specific focus group topics (i.e., impressions of benefits, Breathalyzer tests, and the core educational components: drumming education, drumming activities, gender roles, *The Medicine Wheel and 12 Steps* education, and linkages to drumming within the community). Content analysis of the focus group transcripts followed generally accepted analytic procedures for qualitative research (Cresswell, 2003; Marshall & Rossman, 1995). The first author of this article and his assistant reviewed the transcripts for completeness and accuracy. The transcripts and notes taken during the focus groups were then reviewed for categories, patterns, and themes within and across the groups. Transcripts were coded and analyzed using ATLAS.ti software. Emerging themes were identified, then cross-checked and validated in several ways. The first author and his assistant discussed observations and the emerging patterns and themes after each focus group and after reading the notes and transcripts. They then discussed the overarching themes until reaching consensus. Representative exemplary quotations were selected to illustrate the themes.

RESULTS

DARTNA Pretest Participants: Retention, Intervention Completion, and Substance Use

Fifty percent (5/10) completed the 12-week DARTNA program. Eighty percent (8/10) completed at least the 6-week (midpoint) assessments. Three of the five participants who completed the full 12-week DARTNA intervention had past histories of substance use disorders and continued to report no drug or alcohol use per the SUR at the 6- and 12-week follow-up time points. The other two participants who completed the full DARTNA intervention had current substance use disorders. One of these individuals reported drinking alcohol a single time during weeks 8-10, and the other participant reported no drug or alcohol use. The three additional participants who completed the 6-week follow-up assessments reported no recent alcohol or drug use at baseline. One of these participants reported drinking alcohol on one day during treatment, whereas the other two continued to report no alcohol or drug use at the 6-week follow up.

DARTNA Pretest: Additional Measures

ASI-NAV: As shown in Table 2, with regard to the ASI psychiatric status composite score, results achieved statistical significance at 6 weeks ($p < 0.05$) and trended very closely to statistical significance among completers at 12 weeks ($p = 0.059$). Also, completers demonstrated significant improvement on the ASI medical status composite score ($p < 0.05$). No other significant scores were noted in the remaining ASI problem areas. (Scoring methods for the spiritual and ceremonial practices problem area were not available from the developers of this assessment.)

FACIT-Spiritual Questions Only-Expanded: Among completers, the total FACIT-Spiritual Question score trended very closely to statistical significance at 12 weeks ($p = 0.076$), and there was significant improvement in the meaning/peace subscale ($p < 0.01$) and in Sp 12 total ($p < 0.05$). No significant changes were noted on the faith subscale.

FACIT-F: Among completers, results trending toward statistical significance were noted on the additional concerns subscale (0.054), and results demonstrated statistically significant improvement in the TOI subscale ($p < 0.05$).

No noticeable improvements were observed on the FACT-Cog, AI/AN Cultural Identity, GAATOR 2.1, or BSI measures (total score and all individual domains).

Table 2
DARTNA Pretest Results

ASI[a] Results				
	Baseline Score		**6-week Score (n = 8)**	**12-week Score (n = 5)**
ASI composite score in each problem area	6-week completers (n = 8)	12-week completers (n = 5)		
Alcohol use	0.18	0.12	0.07	0.14
Drug use	0.18	0.17	0.01	0.02
Employment	0.66	0.65	0.65	0.58
Family/social relationships	0.06	0.26	0.17	0.24
Legal status	0.04	0.30	0.12	0.04
Psychiatric status	0.18	0.36	0.10*	0.09
Medical status	0.17	0.46	0.18	0.14*

continued on next page

Table 2, Continued
DARTNA Pretest Results

Results on Additional Measures - Participants who Completed 6-week Assessments Only (*n* = 3)			
Assessment	**Baseline Score**	**6-week Score**	**12-week Score**
FACIT[b]-Spiritual Questions Only-Expanded	58/92	67.3/92	n/a
FACT[c]-Cognitive	89.6/132	105/132	n/a
FACIT-F	125/160	130.7/160	n/a
AI/AN Cultural Identity Scale	26.3/39	26.7/39	n/a
GAATOR[d] 2.1	24.6/48	30.0/48	n/a
BSI[e]	44.3/212	24/212	n/a

Results on Additional Measures - Participants who Completed 6- and 12-week Assessments (*n* = 5)			
Assessment	**Baseline Score**	**6-week Score**	**12-week Score**
FACIT-Spiritual Questions Only-Expanded	68.2/92	76.8/92	81.2/92
Meaning/peace subscale	21.6	26.4	27.6**
Faith subscale	12.0	14.0	14.4
Sp 12 total subscale	68.1	77.2	81.8*
FACT-Cognitive	89.4/132	94.4/132	94/132
FACIT-F	125/160	138.6/160	140.4/160
Trial Outcome Index (TOI) subscale	88.2	96.8	100.8*
Additional concerns subscale	42.4	47.6	49.8
AI/AN Cultural Identity Scale	21.4/39	21.6/39	23.6/39
GAATOR 2.1	23.5/48	27.4/48	29.0/48
BSI	31.8/212	14.2/212	20.4/212

* $p < 0.05$, ** $p < 0.01$
[a] ASI = Addiction Severity Index; [b] FACIT = Functional Assessment of Chronic Illness Therapy; [c] FACT = Functional Assessment of Cancer Therapy; [d] GAATOR = General Alcoholics Anonymous Tools of Recovery; [e] BSI = Brief Symptom Inventory

Focus Groups: Impressions from DARTNA Pretest Participants, Providers, and the CAB

The overall consensus among pretest participants was that DARTNA was an exceptional, powerful, and very beneficial culturally based substance abuse treatment intervention. Participants reported that their experiences in DARTNA assisted in their recovery path, and they believed that AI/ANs with substance use disorders would benefit from this treatment intervention. One consistent theme was the power and therapeutic strength of the culturally based DARTNA treatment protocol. For example, one individual reported, "Yes, that was a reconnection for me back into my cultural place, where I need to be. I didn't have no idea I was part of that medicine, so now I do realize that I'm part of that medicine…"

Another participant stated, "…it was reconnecting with my people, my ancestors, my Creator, the people that was around, the people that was around us. I didn't feel by myself no more. I felt a part of."

Participants also reported powerful benefits from their opportunity to participate in drum making. For example, one participated stated, "that drum building, that drum singing, drum playing, really woke me up to who I am."

Very few additional suggestions were made regarding the general delivery of DARTNA. In keeping with Native tradition, participants wanted to honor the local tribes by learning about local tribal traditions in California. For example, one participant stated, "We need something to keep them California Indians…We need somebody to come in with their medicine, their people's medicine, since we're in California."

DARTNA treatment format feedback

In general, participants in all focus groups were in favor of the DARTNA treatment format. However, the CAB, including the two pretest providers, believed that participants especially enjoyed and benefitted from drumming. They stated that the time allocated for the talking circle—1 hour—typically was not used up, and that devoting some of the talking circle time to drumming would have been more beneficial for the participants.

Spiritual benefits of DARTNA

Many participants said that they received spiritual benefits from their participation in DARTNA. For example, one participant stated,

> …I felt like I was equal in the spirit, of everybody. They were taking time out of their lives, I was too, so we had consensus right there, and we're sitting around the drum and that's why the spirit works when we're all together.

Mood benefits

Participants reported mood benefits associated with DARTNA, and the pretest providers also reported that they noticed mood improvements among the participants. For example, one provider stated,

> Some of them would say they only have distractions and problems, depression, or something going on in their family, but then they said once they came to that drum workshop [DARTNA session], that it made things okay in their minds.

Drumming Education

Providers had some general questions about the approach to drumming education in DARTNA. For example, one provider asked, "Did you talk about environments of drumming? … the difference between drumming in ceremony? Drumming at powwows?" Providers also asked what types of songs, traditions, and ceremonial context were being taught. We advised providers that participants were being taught powwow-style drumming; one provider, along with the DARTNA CAB, expressed that this approach made sense due to the wide use of powwow-style drumming in the Los Angeles County area.

The CAB also advised that the style of drumming used for DARTNA should be social, rather than sacred or ceremonial. This approach, which we followed, was advised to assist in providing a basic foundation in AI/AN drumming, which could then prepare individuals to learn more about the sacred and ceremonial uses of drumming as they progress.

Drumming Activities

After further discussion in the DARTNA CAB focus group, it was decided that the goal for future DARTNA interventions in Los Angeles would be for participants to learn two songs, due to the introductory nature of this treatment and the length of time typically needed for new drummers and singers to learn the songs. Furthermore, the CAB believed that changing the DARTNA treatment protocol to 1.5 hours of drumming and 30 minutes of talking circle would make the most of the 3-hour time period for the final DARTNA structure. The CAB also recommended that the style of drumming and singing should be different for different tribal communities, suggesting that the drumming activities would need to be suited to local tribal traditions. As a result, DARTNA would be able to accommodate most tribal areas.

Gender Roles

The first author and the two DARTNA treatment providers noted that women in the DARTNA pretest chose to not participate in the drum-making session or drumming activities. They felt that it was not their role to participate in these activities, but rather to accompany the men by singing. These perspectives were echoed by providers and the other CAB members. For example, one female CAB member expressed, "Us women, we're not supposed to tie a drum. I've never seen a woman sit at that drum…They don't drum in public. They do it more for their own healing." Another female provider stated,

> If you start changing the traditions, you start watering it down and watering it down. Pretty soon, you don't have a nice, strong cup of coffee and don't have a clean glass of water; you just have something in between. I know things are changing and that's why I think it's even more important to teach the traditions and try to keep that alive, and for the women that want to drum I think a hand drum is good."

One DARTNA pretest participant expressed an opinion that women should have an opportunity to drum:

> Maybe, I don't know. It's based on [the] individual. I feel the women have as much right as we do, as the men. Now everybody's entitled to their own approach, but I know that if I had my wife, I would want her sitting right next to me, not behind me, so she could share with what I'm learning too.

The authors have noted that many AI/AN women around the U.S. are interested in drumming and have their own drumming groups. This controversial issue was summarized by one male CAB member: "It's a very touchy sensitive issue because there are so many different tribes and then at the same time, you don't want to step on anybody's toes."

Various approaches to the issue of women and drumming were offered by participants. For example, one provider stated, "…if there are tribes where women do drum, to allow that opportunity for them to make their own hand drum, and to participate in that way…" One pretest participant stated that women could participate in DARTNA by making and using their own personal hand drums and by singing. The need for education regarding the typical roles of men and women in drumming activities was emphasized by both providers and the CAB. Also, individuals from these focus groups advised that drumming roles for men and women should mirror the traditions of the local tribal community where DARTNA is being provided.

Women who participated in DARTNA expressed a need for further mentoring, specifically regarding their roles in AI/AN drumming activities. They reported that, although they sang with the women around the drum and were actively participating, they did not have any female mentors to serve as role models.

***The Medicine Wheel and 12 Steps* Education**

Participants from all three focus groups expressed that incorporating educational concepts from *The Medicine Wheel and 12 Steps* program would be beneficial for future DARTNA participants. Thus, further enhancements or changes to DARTNA were not advised. However, providers and the DARTNA CAB supported referring clients to *The Medicine Wheel and 12 Steps* supplemental educational materials (White Bison, Inc., 2007) to assist toward understanding the 12-step principles within an AI/AN context.

Linkages to Drumming within the Community

DARTNA pretest participants and the CAB expressed the need for providing participants with linkages to other drumming groups and opportunities upon completion of the DARTNA program. For example, one participant stated,

> … I felt like I was just trying to get more into it, and then the program ended. I would look forward to coming and playing the drum and singing, and my voice was getting louder, and I was getting more motivated and feeling better about it, but then it would end.

Procedures for Breathalyzer Tests

Providers emphasized the importance of administering Breathalyzer tests to DARTNA participants in order to assure that a clean and sober environment existed around the drum. The provider and DARTNA CAB focus groups discussed two instances in which individuals had positive Breathalyzer tests during the intervention and inquired how such situations were handled. One provider asked: "Was it discussed [about] the sacredness of the drum and if they were to come under the influence?" After learning that pretest participants had been asked not to come to sessions after drinking or using drugs, both providers and the CAB expressed concern that AI/ANs may have sensitivities with regard to Breathalyzer tests. For example, one CAB member/pretest provider stated, "It's a sensitive thing when it comes to Native people that I tread very slow. You are always trying to make them feel a part of [the group] in any way, shape, or form." After further discussion, the CAB recommended that, at the first DARTNA session, participants learn about the sacred nature of the AI/AN drum and the respect that is required when around the drum. Participants would then be told that, if they have a positive Breathalyzer test, they will not be allowed to drum or participate with the group, but will be offered the option of either staying in the room away from the drum or leaving and coming back sober at the next session.

DISCUSSION

Results from the DARTNA pretest and focus groups provide support for DARTNA as a culturally appropriate and acceptable substance abuse treatment for AI/ANs. Participants in the DARTNA pretest demonstrated a 50% completion rate, with 80% completing at least half of the 12-week DARTNA treatment protocol. They also reported either maintenance of sobriety or reductions in drug and/or alcohol use. In addition, promising results were found in medical status and psychiatric status per ASI-NAV results, in spirituality per FACIT-Spiritual Questions Only-Expanded meaning/peace and Sp 12 total subscales, and in physical/functioning levels per the FACIT-F TOI subscale.

Pretest participants provided positive feedback about the intervention, its unique cultural benefits, and its potential as a beneficial treatment for AI/ANs with substance use disorders. Furthermore, valuable information regarding the key educational concepts, which will be helpful in finalizing the DARTNA treatment manual, was obtained from the focus groups.

The cultural identity scores, based on our AI/AN Cultural Identity Scale, did not change significantly. We believe that ongoing and consistent involvement in AI/AN drumming groups is required to experience the cultural and spiritual benefits associated with this activity. Further participation in drumming, education about the stories associated with songs, and exposure to related AI/AN cultural activities (e.g., dancing) are most likely needed in order to increase AI/AN cultural identity. Cultural identity development may take longer in urban settings where access and exposure to fellow AI/ANs and cultural activities may be lower than in rural or reservation settings.

Various results from the DARTNA pretest demonstrated statistical significance, which was striking due to the very small sample size and considering that the primary objective of this study was to aid in the final development of DARTNA. We believe that if we had had a larger sample, more substantive results would have been demonstrated. Nonetheless, these findings are encouraging and represent an important step toward demonstrating that a substance abuse treatment intervention utilizing drumming can be beneficial for AI/ANs. Our plans for a future study include a comparison group to explore these findings among larger samples of AI/ANs with histories of substance use disorders.

Based on feedback about drumming education and activities, we will provide sections in the DARTNA treatment manual explaining the various styles and purposes of drumming among Indigenous communities. However, we suggest that DARTNA first focus on social styles of drumming. After participants learn about the basics of drumming, they will be advised to learn more about other drumming traditions, including sacred elements. Also, based on participants' wishes for more drumming and on the DARTNA CAB's suggestions, the format will be modified to allow for 1.5 hours of drumming and 30 minutes of talking circle.

Participants across all three focus groups highlighted gender roles in AI/AN drumming as an important component of DARTNA. The authors and the CAB noted that the issue of gender roles is controversial and sensitive. The authors recognize that there are numerous tribal traditions related to drumming and Indigenous communities (e.g., powwow style of drumming, sacred uses of drumming, personal handheld drumming) and that these activities may have specific gender roles. One of the most consistent themes expressed throughout this research was the need to focus on fundamental AI/AN traditions; therefore, the authors suggest that DARTNA instructors educate participants on typical gender roles that tribes have utilized historically. However, due to the wide diversity of tribal

traditions and the existence of women's drumming groups, the authors first suggest that substance abuse clinics discuss and consult with local cultural leaders, drummers, and community members regarding to the roles of men and women in drumming activities that should be highlighted.

Due to positive feedback, we will recommend that DARTNA participants be linked with community-based drumming activities so that they can continue to use drumming as part of their recovery after the program ends. DARTNA "alumni" drumming groups and formal linkages with community drumming groups will be recommended to programs that use DARTNA.

DARTNA pretest participants expressed that *The Medicine Wheel and 12 Steps* program was an important educational component. Thus, we will encourage programs to provide the most recent *The Medicine Wheel and 12 Steps* materials (White Bison, Inc., 2007) as a reference to aid in their participants' recovery.

Feedback obtained from providers and the DARTNA CAB assisted toward our handling of Breathalyzer tests. As the CAB advised, we will include an educational component in the DARTNA treatment manual regarding the sacred nature of AI/AN drumming and the need to be sober when around the drum, and will incorporate the strategy proposed by the CAB (i.e., at every DARTNA session, Breathalyzer tests will be performed in an office or clinical area before participants enter the treatment room; individuals with a positive test can choose either to enter the room but not drum, or to come back sober at the next session). A clear, yet encouraging attitude, as well as sound education, should be employed with participants in order to preserve the sacredness of drumming, ensure a clean environment, avoid distracting other participants, and emphasize traditional ideals of wellness.

Although the purpose of this study was to finalize and pretest the intervention among a small sample, we recognize the importance of optimal intervention completion and retention rates. Although our completion rate of 50% is comparable to those of other intervention studies (Rawson et al., 2006; Elkashef et al., 2008), we believe there are significant challenges to conducting clinical trials among AI/ANs with substance use disorders in urban settings (e.g., transportation, child care issues). In recognition of these challenges, we have recently completed a qualitative study among AI/ANs with substance use disorders (including DARTNA pretest participants) and substance abuse providers who serve AI/ANs to identify strategies that can result in optimizing recruitment and retention in a future clinical trial (Dickerson et al., in press).

This study was subject to various limitations. The DARTNA pretest had a very small sample size, did not utilize a comparison group, and was tested in only one urban setting in the U.S. Thus, generalizing these results to all AI/AN communities is not possible. Clinical thresholds of the measures used in this study were not available to us; thus, it is difficult to fully interpret the results. Furthermore, although the ASI-NAV was developed specifically for use with AI/ANs, data with

regard to its validity and reliability among urban AI/ANs in diverse settings are not available, to our knowledge. Regarding the focus groups, the DARTNA pretest participant group was comprised of only 4 of the 10 pretest completers. Thus, some important information might have been lost from the other 6 participants who were not able to provide feedback on the intervention. Nonetheless, the primary aim of this study—to obtain feedback and data in order to finalize the development of DARTNA in a way that can accommodate a wide variety of tribal populations—was achieved.

In conclusion, results from this study provide useful data regarding the acceptability and cultural relevance of DARTNA for AI/ANs with substance use disorders. Furthermore, promising benefits associated with DARTNA were found that suggest its potential usefulness for AI/ANs with substance use disorders. Also, we obtained feedback regarding drumming education, drumming activities, gender roles, *The Medicine Wheel and 12 Steps* education, and linkages to drumming within the community, as well as Breathalyzer tests. As a result of the data generated from this study, the DARTNA treatment manual will be finalized and used in a future study to analyze the potential benefits of DARTNA for a larger sample of AI/ANs with substance use disorders.

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