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PERCEPTIONS AND PSYCHOSOCIAL CORRELATES OF BULLYING AMONG LUMBEE INDIAN YOUTH

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Abstract: Although bullying has been linked to suicide among youth, little is known about bullying in American Indians, a population at high risk for suicide. Qualitative data from focus groups with Lumbee Indian youth (N = 31, 16 males, 15 females, 12-17 years of age) and in-depth interviews with gatekeepers in the Lumbee community revealed that bullying is common, and is perceived to contribute to depression and suicide. Youth expressed powerlessness to overcome bullying. Survey data (N = 79, 32 males, 47 females, 11-18 years of age) showed that bullied youth (11.5%) had lower self-esteem and higher levels of depressive symptoms. Interventions are needed to address this behavior that contributes to poor psychosocial health in Lumbee youth.

INTRODUCTION

Bullying is generally defined as repeated, unwanted, aggressive behavior that is intentional and that involves a real or perceived imbalance of power (U.S. Department of Health and Human Services [US DHHS], n.d.b). The most comprehensive national study of bullying, published by Nansel and colleagues (2001), indicated that 30% of teens are involved in bullying, either as a victim or perpetrator. In addition, with the recent rise in texting and Internet usage, there is a growing concern with “cyberbullying” and other alternative forms of bullying. Wang and colleagues (2009) described the prevalence of U.S. adolescents involved (either as a victim or perpetrator) in bullying by type as 20.8% physical, 53.6% verbal, 51.4% social, and 13.6% electronic. National initiatives are currently underway to increase awareness of the impact of bullying among youth, including the “Stop Bullying Now” initiative by the U.S. Departments of Education, Justice, and Health and Human Services (www.stopbullying.gov; US DHHS, n.d.a).

A growing body of literature demonstrates that bullying is a major risk factor for poor psychosocial health, including depression, and is a contributor to suicidal ideation and behavior (e.g., Gini & Pozzoli, 2009; Saluja et al., 2004; Schneider, O'Donnell, Stueve, & Coulter, 2012). A systematic review of 37 published studies by Kim and Leventhal (2008) revealed that any participation in bullying increases the risk of suicide, regardless of the social environment of the adolescent. In a recent large study of high school-age youth in Boston, Hepburn and colleagues (2012) showed a strong correlation between involvement in bullying as a victim and/or perpetrator and reported suicidal ideation or attempted suicide, with the greatest level of risk among those who were both victims and perpetrators. Other negative factors associated with bullying include substance abuse and risk-taking behaviors (Luk, Wang, & Simons-Morton, 2012; Tharp-Taylor, Haviland, & D'Amico, 2009; Topper, Castellanos-Ryan, Mackie, & Conrod, 2011).

American Indian (AI) youth have the highest rates of suicide among all racial/ethnic groups in the U.S., more than double the rates of non-Hispanic White youth (Dorgan, 2010), and alarming enough to lead the U.S. Senate to convene hearings in 2009. However, there appears to be a paucity of literature about bullying among AI youth. In data collected as part of the Primary Prevention Awareness and Attitude Survey in middle and high school districts in Columbus, Ohio in 2003, AI youth had the highest reported rate of being a victim or perpetrator of bullying of the five racial/ethnic groups in the study (Carlyle & Steinman, 2007). While both bullying and being bullied were correlated with depressive symptomatology, these analyses were not conducted within specific ethnic groups.

The study for which these data pertaining to bullying were collected was part of a larger pilot study (described below). Bullying arose as a significant issue during the larger study, and, given the limited information available on this topic related to AI youth, we extracted these data from the larger study and examined them to determine the role of bullying in the lives of Lumbee youth. These data can be used to provide a much-needed understanding of bullying in AI youth and develop interventions to address this significant problem.

This study, part of the larger Lumbee Rite of Passage (LROP) study, examines the perceptions and demographic, health, and psychosocial correlates of bullying among Lumbee Indian youth in North Carolina. LROP is a National Institute of Mental Health-funded study with the overall goal of assessing the mental health perceptions and needs of Lumbee Indian youth, and determining the impact of a cultural program conducted by the Lumbee tribe on risk factors for suicide in Lumbee Indian adolescents.

The Lumbee Tribe of North Carolina is a state-recognized tribe of approximately 55,000 members, one of the largest tribes in the eastern U.S. The Lumbee tribe has lived in eastern North Carolina since the 1700s, and has social and cultural ties and traditions that remain strong today.

While the Lumbee do not have reservation lands, the tribal government and central homeland are located in Robeson County, one of the largest, most rural counties in the state.

AIs make up a small percentage of the North Carolina population, so availability of health and economic data is limited, and there is little information available on the health of Lumbee Indian youth. However, statewide data indicate that AIs in North Carolina have significant health and economic disparities (North Carolina State Center for Health Statistics & Office of Minority Health and Health Disparities, 2010).

METHODS

The study used a mixed methods approach drawn from the principles of community-based participatory research (CBPR; Minkler & Wallerstein, 2003; Patton, 1990) to help elucidate the issue of bullying in the Lumbee community. Using the CBPR model, the study was conducted as a partnership between the Maya Angelou Center for Health Equity at Wake Forest School of Medicine (WFSM) and the Lumbee Tribe of North Carolina. The tribe was involved in the formulation, development, implementation, evaluation, and dissemination of the study. The study was approved by the WFSM Institutional Review Board and the Lumbee tribal leadership.

The study had a Data Safety Monitoring Board, which provided input on qualitative instrument development and questionnaire selection and wording, and approved all consent forms and safety data.

In line with the CBPR model, the study also had a Community Advisory Board (CAB). Established in Fall 2010, the CAB included representatives from health care, schools, churches, and tribal government, as well as Lumbee youth. The CAB met monthly and worked in partnership with the study team throughout the program on instrument design, qualitative and quantitative implementation, recruitment, strategies to address program and participant concerns, development of additional partnerships, and dissemination. Speakers from the community who had expertise in working with youth and/or mental health were invited to each meeting to provide education and insight to CAB members on these and related issues.

LROP was conducted in two phases, as described below, from 2010-2012 to achieve the following aims: 1) to assess perceptions of suicidal behavior and other factors associated with suicide; 2) to examine perceived mental health needs among, and services for, Lumbee Indian youth (ages 11-18 years) in Robeson County, and to solicit perceptions regarding content of culture classes for youth offered by the tribe; 3) to elicit perceptions of the impact of the tribally run culture classes; 4) to enhance and administer the tribally run culture classes after evaluating data from the first three aims; and 5) to determine the impact of the tribally run culture classes on suicidal ideation and its risk factors.

Phase 1

Qualitative data were collected in Phase 1 using in-depth interviews with community gatekeepers and focus groups with Lumbee youth. For this study, gatekeepers are defined as community-based professionals working with youth or in the fields of mental health and/or counseling. To identify gatekeepers, we first consulted with the CAB to select several key individuals. After the initial interviews, snowball sampling (Bernard, 2011) was used to identify additional interview candidates. Individuals were eligible as long as they were age 18 years or older and worked with youth in the local community and/or in the mental health field. Participants were screened by telephone, and in-person interviews were scheduled at their convenience.

Interviews were conducted either in participants' workplaces or in other locations convenient for them, and were audio-taped (with permission) for data analysis purposes. Interviews lasted 40-80 minutes. Sixteen gatekeepers (11 women, 5 men; 15 AI, 1 White) were interviewed. Of the 16 gatekeepers, 11 identified as mental/behavioral health service providers, 3 were clergy or had a vocation of a religious nature, 3 were health care providers, and 3 were employed at an AI and/or community advocacy agency (some gatekeepers identified multiple categories).

For focus groups, youth were recruited through community gatekeepers, via word of mouth at community events/agencies, and at tribally operated Boys & Girls Clubs using flyers. When potential participants called the telephone number provided on the flyer, they were screened for eligibility and, if eligible, scheduled for a focus group session. Eligible youth were Lumbee by self-report, were 12-17 years of age, lived in the research county, spoke English, and had a parent or legal guardian to consent for them. Focus groups took place in a conveniently located community setting. All participants provided written informed assent or consent, and consent was obtained from a parent or legal guardian of each youth prior to participation. Participants received \$10 incentives. Thirty-one youth (16 males, 15 females; average age, 14.7 years) participated in 4 focus groups, ranging from 60-75 minutes in length.

The semi-structured interview and focus group guides (Bernard, 2011; Morgan & Krueger, 1997) were designed to elicit information about (1) local perceptions regarding the prevalence of mental illness and related stigma, particularly for youth; (2) risk factors (behavioral, social, genetic) that may influence mental health and/or suicide risk for youth; (3) experiences with suicidal youth; (4) quality and availability of local mental health resources; and (5) cultural resources for AI youth. To guide our instrument development, we conducted an extensive search of published literature on these topics.

The study team became cognizant of the significant role of bullying in the lives of Lumbee youth during our initial discussions with our CAB members. Therefore, and because bullying is a major contributor to suicide and poor mental health among youth, questions pertaining to bullying

were included in the focus group and interview guides. In addition, data gleaned from Phase 1 gatekeeper interviews and focus groups guided Phase 2 activities (development of content for the tribally run culture classes, and for an accompanying survey instrument). These data complemented the standard measures being used, as a means to further tailor the intervention and survey instrument for the target audience.

Phase 2

Phase 2 of LROP included an intervention which consisted of a 6-month, weekly cultural enrichment program offered by the Lumbee Tribe Youth Services program. Each session lasted approximately two hours. Program sessions were held in the evening at either a tribally operated community center or a Boys & Girls Club. Sessions included presentations on Lumbee history and traditions, singing, dancing, drumming, beadwork, artwork and participation in cultural events. Youth were assisted in making dance regalia using materials provided by the Tribe's Youth Services program. Attendance was taken at each session, and the study team conducted a quarterly evaluation of the program. Elders were encouraged to attend and assist with the classes. To address the aims of this project, mental health promotion topics were also included.

Eligibility criteria for participation in the intervention included: age 11-18 years, residency in Robeson or a neighboring county, enrolled membership in the Lumbee tribe by self-identification; fluency in English, and cognitive ability to provide assent and to actively participate in the intervention.

In addition, participating youth were asked to complete a survey instrument that included a series of questions to assess demographic and physical and mental health characteristics. After informed assent or consent was obtained from participants, and consent was obtained from a parent or legal guardian of each youth, trained interviewers collected survey data at one primary intervention site and one delayed intervention site. The survey was mostly self-administered and took approximately 45-60 minutes to complete. Study team members were available to respond to any questions the participants had. The two groups were administered surveys at the same time points: baseline, 6 months, and 9 months. After the 9-month assessment, the culture classes were offered at the delayed intervention site. The baseline sample ($N = 80$), from which data are reported below, had a mean age of 13.8 years ($SD = 2.0$), and 60% were female.

Study Measures

The primary quantitative outcome for this analysis was whether the participant was either a victim or perpetrator of bullying behavior. These data were collected using one individual question from the survey instrument for each behavior: (1) Circle the answer that best describes how you

act around other kids: I do not usually bully other children, I sometimes bully other children, or I bully other children nearly every day; and (2) Circle the answer that best describes how other kids act around you: Other children do not usually bully me, Other children sometimes bully me, or Other children bully me nearly every day (Klomek et al, 2009). We categorized both perpetrators and victims of bullying as those who gave either of the latter two responses to each question. Due to our small sample size, we were not able to adequately compare those who sometimes bullied/experienced bullying to those who bullied/experienced bullying every day.

Data were collected on demographic variables including age, grade in school, ethnicity, community of residence, and gender. Socioeconomic status and other demographic information were collected from parents. Given the association between obesity, bullying, and poor mental health (Hebebrand & Herpertz-Dahlman, 2009; Nieman & Leblanc, 2012), we assessed body mass index (BMI) for each participant. Height was measured using a standard stadiometer, recorded to the nearest half inch and repeated; the two measures were then averaged. If there was a discrepancy of more than half an inch in the two measurements, a third measurement was taken and the discrepant measure was discarded. Weight was measured using digital scales. Participants removed their shoes and were asked to stand up straight during the measurement. BMI was calculated using measured weight (kilograms) divided by measured height (meters) squared, and is reported as a mean as well as categorized as overweight/obese ($\text{BMI} \geq 85^{\text{th}}$ percentile) and normal weight ($< 85^{\text{th}}$ percentile).

In the current literature (see meta-analysis review by Marshal et al., 2011), sexual orientation has been linked to behaviors that increase risk for suicidal ideation. As a result, we also included in the quantitative survey instrument a question pertaining to sexual orientation. Given the sensitive nature of this topic, particularly among our target age group, the following question was used after consultation with the CAB: “People are different in their sexual attractions to other people. Circle the response that best describes your feelings. Are you: Only attracted to females? Mostly attracted to females? Equally attracted to females and males? Mostly attracted to males? Only attracted to males? Not sure?” Based on their responses, participants were classified as heterosexual (only attracted to the opposite sex) or not heterosexual (any other answer).

Suicidal ideation was measured using the Suicidal Ideation Questionnaire-Junior Version (SIQ-JR; Reynolds, 1988). The SIQ-JR is a 15-item battery designed to measure the presence and severity of suicidal thoughts among adolescents. Although originally developed for use with junior high school youth, it can also be used among older youth. A version of the scale has been used successfully with AI youth (Keane, Dick, Bechtold, & Manson, 1996). The SIQ-JR has a high degree of reliability ($\alpha = .93-.94$). Participants were asked to rate various suicidal thoughts on a 7-point scale, where 0 means *I never had this thought* and 6 means *Have this thought almost every day*. Scores on each item are summed to provide a total severity score. A raw score greater than 31

on the SIQ-JR indicates a need for further evaluation regarding potential suicide risk (Reynolds, 1988). For our analysis, due to the skewed distribution of the responses, we stratified the SIQ-JR score as “0” and “1 or more.”

Depressive symptoms were measured using the Center for Epidemiologic Studies Depression Scale for Children (CES-DC; Weissman, Orvaschel, & Padian, 1980). The CES-DC is a 20-item self-report depression inventory with possible scores ranging from 0 to 60, where a score higher than 23 may indicate the presence of clinically significant depressive symptoms. The instrument uses a 0-3 Likert scale format in which (for most questions) 0 means *Not at all* and 3 means *A lot*, with some questions reverse-scored. Reliability and validity of the CES-DC have been well established (Faulstich, Carey, Ruggiero, Enyart, & Gresham, 1986; Fendrich, Weissman, & Warner, 1990).

Self-esteem was measured using the Rosenberg Self-Esteem Scale (RSES; Rosenberg, 1965). This assessment consists of 10 Likert-style questions answered on a 4-point scale, from *Strongly agree* to *Strongly disagree*. The original scale was developed for a sample of 5,024 high school juniors and seniors, but it has been validated for use with younger children as well. Previous studies have indicated a reliability of 0.85 and have confirmed face and convergent validity (Robinson, Shaver, & Wrightsman, 1991).

We assessed connection to Lumbee heritage by response to the following question: “How connected do you feel to Lumbee culture?” Youth could respond on a scale from 1-10, and were instructed that 1 meant *Not connected at all* and 10 meant *Extremely connected*.”

Statistical Analysis

For qualitative data, transcripts were compared with notes taken from each interview/focus group and verified with audiotapes. The analysis followed the strategies described by Green et al. (2007) and Arcury and Quandt (1998). A codebook was developed after the preliminary review of all transcripts. The codes included core concepts (e.g. stigma, family, bullying) based on project objectives and related significant points expressed by participants during interview and focus group discussions. Transcripts were imported into Atlas.ti v6.2, a software program designed to organize and manage textual qualitative data. Text was cross-coded by the study team (SG, SL) using a collaborative, iterative process. Topical codes were supplemented by emergent codes as analysis proceeded. The investigators determined themes according to (1) the level of consensus for a concept among the reviewers, (2) strength and depth of a concept, and (3) frequency of a concept throughout the discussion.

After coding, segments of text were abstracted by code and reviewed. For this analysis, all segments for the code “bullying” were extracted. Due to the nature of the study’s focus area, text was not mutually exclusive with regard to codes, and text from both the interviews and focus groups

frequently was coded under more than one theme. The interpretation of these themes is supported by use of quotations from participants. To protect confidentiality, quotations have been deidentified. Quotations from focus group participants are referenced with an “R,” and quotations from gatekeepers begin with a “G.” Analysis is ongoing for all themes identified; thus, this manuscript reports solely on those themes relevant to the its topic.

To assess factors associated with bullying behaviors, we examined whether youth indicated they had bullied others, or indicated they had been bullied, for each of the demographic, health, and psychosocial variables. Chi-square tests were conducted for dichotomous variables, and *t*-tests were conducted for continuous variables. All analyses were conducted using the SAS Statistical Software package (version 9.2). Significance for each test was set at $p < 0.05$.

RESULTS

Phase 1

What is Bullying?

During focus groups, youth were consistent in their descriptions of bullying as a form of covert or overt aggression against another person. One youth quipped that “making fun of people” is something teenagers do for fun. Much of the “picking on” or “talking bad” about someone is in the form of spreading rumors or talking about someone in a negative manner while not in that person’s presence. Fighting is often the result of bullying that led to physical aggression. One respondent explained:

Sometimes one person starts a rumor, and then they’ll tell somebody, and then it will just be all over the school...then the person that they started the rumor about gets jumped or something, and the person who started the rumor gets off with it. (R19)

Who Are the Bullied/Bullies?

Interviews and focus groups both revealed that, generally, youth who are considered “outside the norm” or “different” are victims of bullying. Gay youth, particularly males, are perceived as common victims of bullying in the school setting. Youth who are “unfortunate,” experiencing a bad home life or having few financial resources, are bullied, as well as those who are exceptionally smart or not well connected socially. One youth explained:

All of the smart students are always being made fun of by the children that are not as smart as them. The children that are not as smart as that child thinks they’re better than that child in certain ways. (R25)

Those who bully come from a variety of backgrounds, and include those who have experienced abuse at home, as well as those who are more fortunate from a social or financial standpoint.

Bullying Causes Harm

Youth were explicit in their description of the effects that bullying can have on the psychosocial health of those who are bullied. One youth described the suicide of a classmate that was believed to be related to incessant bullying. A gatekeeper mentioned bullying as one of many factors which has contributed to the growing rate of suicide among youth in the community. Other participants felt that youth who are bullied have lower self-esteem, more depression, or other negative reactions. During one focus group, several youth discussed the impact of verbal bullying:

R22: "One little word can just drive someone crazy, I believe."

R24: "Especially over and over again."

R29: "I know you keep hearing it and hearing it."

R22: "If you keep hearing it at school, people keep calling you the same thing over and over again, and..."

R29: "What makes it worse is when you walk down the hallway and you can hear people whispering behind you talking about it like it's the worst thing ever."

R28: "Or like if you're at school and you feel like there is people behind you talking about you."

The link between bullying and suicide made by participants was clear. One focus group discussed the suicide of a student who was being bullied, and one gatekeeper (G04) stated that for children battling depression who are bullied, the bullying "pretty much pushes them over the edge. I think it's just another stressor that's being added on."

Responding to Bullying

Youth saw bullying as an inevitable part of their social lives. Efforts to stop bullying by teachers or other adults were seen as futile, or, worse, as making the situation more serious.

Usually if a kid tells a teacher, the teacher will just tell them to tell the child to stop bullying them....that doesn't really do anything so they just continue on. Sometimes if you go to a teacher for help, then sometimes that teacher will involve that person that's hurting you, and then that person...they'll say 'I am sorry' and all that, but they won't really mean it. Then they'll go around telling everybody that you told the teacher and got involved in all of this and that you're not strong enough to face up to them and you're just weak and emotional. (R17)

Others indicated that youth who are bullied often develop coping mechanisms, such as ignoring the behavior or finding an activity to take their minds off the victimization. However, some youth utilize substance abuse, violence, and other risk-taking behaviors as unhealthy coping mechanisms.

Gatekeepers mentioned the need for education and for comprehensive services to support those being bullied:

I would say we need more education...we need to be there and help this person. So education would be the biggest thing. We really just need a place to where they can go and receive the services they need all together, that understands every aspect of where they are coming from. (G10)

Phase 2

Due to missing responses, data on bullying were removed for one participant, and data on being bullied were removed for two participants. Tables 1 and 2 provide data on the associations among demographic, health, and psychosocial correlates of bullying and being bullied. Seven participants (8.9%) reported some bullying behavior. No factors were significantly associated with bullying, although some were of borderline significance. Those who reported bullying were less likely to be overweight or obese ($p = 0.05$), and had lower self-esteem scores ($p = 0.07$). Nine participants (11.5%) reported having experienced some bullying. Those who were bullied had significantly higher CES-DC scores ($p < 0.01$) and lower self-esteem scores ($p < 0.01$). The lower cultural connection score among those who were bullied approached significance ($p = 0.06$).

Table 1
Demographic, Health, and Psychosocial Factors
According to Reporting of Bullying Behavior^a

	No (<i>n</i> = 72)	Yes (<i>n</i> = 7)	Chi-square <i>p</i> -value
Gender			
Male	30 (41.7%)	2 (28.6%)	0.50
Female	42 (58.3%)	5 (71.4%)	
BMI			
Normal/Underweight (<85th)	34 (47.2%)	6 (85.7%)	0.05
Overweight/Obese (> 85th)	38 (52.8%)	1 (14.3%)	
Sexual Orientation			
Heterosexual	61 (84.7%)	6 (85.7%)	0.94
Other	11 (15.3%)	1 (14.3%)	

continued on next page

Table 1, Continued
Demographic, Health, and Psychosocial Factors
According to Reporting of Bullying Behavior^a

	No (<i>n</i> = 72)	Yes (<i>n</i> = 7)	Chi-square <i>p</i> -value
CES-DC			
0-23	50 (69.4%)	4 (66.7%)	0.89
24+	22 (30.6%)	2 (33.3%)	
SIQ			
0	33 (45.8%)	3 (42.9%)	0.88
1+	39 (54.2%)	4 (57.1%)	
	Mean (<i>SD</i>)	Mean (<i>SD</i>)	<i>t</i> -test <i>p</i> -value
BMI	0.96 (1.2)	0.07 (1.4)	0.06
CES-DC Score	16.8 (12.2)	17.7 (13.4)	0.87
Rosenberg Self-esteem Score	23.0 (4.5)	19.2 (3.2)	0.07
SIQ	3.7 (6.5)	1.9 (2.1)	0.11
Cultural Connection	7.4 (2.2)	5.9 (3.8)	0.31

^a Due to missing responses, data for one participant are not reported here

Table 2
Demographic, Health, and Psychosocial Factors
According to Reporting of Being a Victim of Bullying^a

	No (<i>n</i> = 72)	Yes (<i>n</i> = 7)	Chi-square <i>p</i> -value
Gender			
Male	28 (40.6%)	3 (33.3%)	0.68
Female	41 (59.4%)	6 (66.7%)	
BMI			
Normal/Underweight (< 85th)	35 (50.7%)	5 (55.6%)	0.79
Overweight/Obese (> 85th)	34 (49.3%)	4 (44.4%)	
Sexual Orientation			
Heterosexual	59 (85.5%)	7 (77.8%)	0.55
Other	10 (14.5%)	2 (22.2%)	
CES-DC			
0-23	50 (73.5%)	4 (44.4%)	0.07
24+	18 (26.5%)	5 (55.6%)	
SIQ			
0	33 (47.8%)	3 (33.3%)	0.41
1+	36 (52.2%)	6 (66.7%)	

continued on next page

Table 2, Continued
Demographic, Health, and Psychosocial Factors
According to Reporting of Being a Victim of Bullying^a

	Mean (SD)	Mean (SD)	t-test <i>p</i> -value
BMI	0.88 (1.22)	0.70 (0.84)	0.67
CES-DC Score	15.3 (11.3)	26.7 (14.5)	<0.01
Rosenberg Self-esteem Score	23.4 (4.2)	18.4 (4.1)	<0.01
SIQ	3.5 (6.4)	3.9 (5.3)	0.87
Cultural Connection	7.5 (2.3)	5.9 (2.9)	0.06

^a Due to missing responses, data for two participants are not reported here

DISCUSSION

Social scientists and public health advocates increasingly recognize the importance of bullying as a contributor to psychological health in youth. Research has documented that youth who are recipients of persistent bullying experience higher rates of depression, risk-taking behavior, suicidal ideation, and suicidal behavior (Gini & Pozzoli, 2009; Hepburn, Azrael, Molnar, & Miller, 2012; Kim & Leventhal, 2008; Luk et al., 2012; Saluja et al., 2004; Schneider et al., 2012; Tharp-Taylor et al., 2009; Topper et al., 2011). Thus, understanding the factors that contribute to negative psychosocial outcomes associated with bullying is imperative.

AI youth have the highest rates of suicide compared to all other racial/ethnic groups in the U.S. Factors that have been shown to contribute to risk of suicide in this population include poverty, disconnection from Native culture, substance abuse, and dysfunctional family and social networks (Chino & Fullerton-Gleason, 2006; Howard-Pitney, LaFromboise, Basil, September, Johnson, 1992; LeMaster, Beals, Novins, & Manson, 2004; Novins, Beals, Roberts, & Manson, 1999; Yoder, Whitbeck, Hoyt, & LaFromboise, 2006). Unfortunately, little is known about the prevalence and correlates of bullying among AI youth. Our review of the literature generated minimal data on this topic. One of the few reports was from a nationwide survey of middle and high school youth, where Carlyle and Steinman (2007) showed that AI youth had the highest rates both of being the victim (27.5%) and the perpetrator (30.9%) of bullying, relative to all other racial/ethnic groups.

Our study revealed a number of very important findings about bullying among AI youth. Only about 10% of youth reported either being a victim or perpetrator of bullying. This rate is much lower than that shown by Carlyle and Steinman (2007). This difference might be due to the fact that we relied on a convenience sample for our study, rather than a nationwide survey as in the latter study. Thus, our sample may be better adjusted and not subject to bullying to the extent that a more representative sample would be. However, we found that victims and perpetrators both had lower

self-esteem than their peers, and victims of bullying had higher levels of depressive symptoms. We also noted in our focus groups that youth were explicit about the factors that contribute to becoming a bully or experiencing bullying, and they were vocal about the helplessness they felt in responding appropriately to bullying.

Our study has a number of strengths, including the mixed-methods design, the focus on an at-risk population, and the array of demographic and psychosocial measures. However, it has several noteworthy limitations, including the small sample size, the convenience sampling (i.e., most youth were recruited via word of mouth or advertising), and the potentially limited generalizability to other AI populations.

The convenience sampling, in particular, might have resulted in the most at-risk youth not participating in either Phase 1 or Phase 2. There also exists among youth in this community a social stigma against both those who are seen as victims of bullying and those seen as perpetrators. As a result, youth may be unlikely to report bullying behaviors. Both of these limitations suggest that further study is needed to determine the best way to recruit at-risk youth and to elucidate detailed information about bullying behaviors.

In addition, the questions used to assess bullying exposure and behavior in Phase 2 were very broad. These questions did not provide a time frame, and did not specify the type of bullying that was used or experienced. Also, most of the bullying examples cited by participants in the focus groups were person to person, in a school or school activity setting. Given the availability of social networks and texting, cyberbullying has become an increasingly important issue among youth (US DHHS, n.d.a), and, as such, future studies should seek to extrapolate bullying data based on type of bullying behavior.

Despite these limitations, this study adds to the sparse literature on bullying in AI youth, a population at high risk for suicide. Further information is needed to fully understand the issue, and concerted efforts should be made to identify those youth who are experiencing bullying, and to develop collaborative efforts among school, community, and tribal leadership to combat bullying. A number of efforts are ongoing among the Lumbee tribe. Our CAB and the Lumbee tribe co-sponsored a community forum, including a panel of Lumbee youth who described the challenges that youth in the community face. The CAB also continues to meet regularly and to provide a social media presence to increase awareness of suicide and mental health issues among Lumbee youth. The Lumbee tribe also continues to offer cultural enrichment programs for Lumbee youth.

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THE WIIDOOKOWISHIN PROGRAM: RESULTS FROM A QUALITATIVE PROCESS EVALUATION OF A CULTURALLY TAILORED COMMERCIAL TOBACCO CESSATION PROGRAM

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Abstract: Commercial tobacco use rates remain disproportionately high among American Indians (AIs). Tailored cessation programs such as the Wiidookowishin (Help Me) program implemented at the Fond du Lac Reservation in Minnesota have demonstrated that such programs can be successful and achieve quit rates similar to mainstream programs. This paper presents findings from a qualitative process evaluation of the Wiidookowishin program and discusses elements that underlie its success at recruiting and enrolling participants, including individualization, flexibility, accessibility, ongoing outreach, and inclusion of traditional tobacco teachings. Lessons learned can be applied to the development of tailored programs to reduce tobacco-related disparities among AIs.

INTRODUCTION

The Wiidookowishin (Help Me) program is a commercial tobacco cessation program developed by the Fond du Lac Band of Lake Superior Chippewa. Wiidookowishin is adapted from the American Lung Association “Freedom from Smoking” curriculum and incorporates Ojibwe culture, language, and traditional tobacco education into the curriculum. Previous evaluations have demonstrated that the Wiidookowishin program achieves quit rates similar to those of mainstream tobacco cessation programs (D'Silva, Schillo, Sandman, Leonard, & Boyle, 2011). Importantly, Fond du Lac has been able to successfully recruit and enroll tribal members to take part in Wiidookowishin. The tribe and its funder, ClearWay MinnesotaSM, partnered to evaluate what contributes to Fond du Lac's ability to connect tribal members to commercial tobacco cessation services. This paper presents the results of a process evaluation that identified elements that contributed to successful recruitment and enrollment of participants to the Wiidookowishin program.

BACKGROUND/LITERATURE REVIEW

Commercial tobacco use among American Indians (AIs) continues to be higher than among other racial/ethnic groups despite the success of limited examples such as the Wiidookowishin program. While smoking prevalence in the U.S. has declined to 18.0% (Centers for Disease Control and Prevention, 2013), and the statewide smoking rate in Minnesota is 16.1% (Boyle et al., 2011), a recent study indicates that 59% of AIs in Minnesota are commercial tobacco smokers (American Indian Community Tobacco Projects, 2013). Minnesota's AI nations are disproportionately impacted by commercial tobacco: Five of the six leading causes of death among AIs—cancer, coronary heart disease, stroke, diabetes, and lower respiratory disease (Great Lakes Inter-Tribal Epidemiology Center, 2008)—are related to commercial tobacco use (U.S. Department of Health & Human Services, 2004).

Research suggests that AI smokers have less success with quitting smoking when compared to other racial/ethnic groups. Barriers to commercial tobacco cessation include a lack of information about the harm of commercial tobacco (Hodge & Struthers, 2006) and low utilization of nicotine replacement therapy and cessation medications (Burgess et al., 2007). Despite negative attitudes about and distrust of cessation aids, expressed as a lack of trust in conventional medicine and skepticism about side effects, evidence suggests that AI smokers might utilize pharmacotherapy if it were made more accessible in the community (Burgess et al., 2007). Another barrier is that smoking is perceived as normative in some communities. Because tribal nations are sovereign, state-level smoke-free laws do not cover reservation communities. AIs, therefore, often live in settings where smoking in public spaces is more common.

Few other tobacco dependence treatment programs have been developed specifically for AIs (Choi et al., 2006). Of those, the “It’s Your Life – It’s Our Future” smoking cessation project in California demonstrated moderate success (5.7% quit rate in the intervention group vs. 3.1% quit rate in the control group at 18-month follow up; Hodge, Larri, & Kipnis, 1999). Daley and colleagues (2006) recently evaluated “The All Nations Breath of Life Program” (ANBL) to determine whether a pan-tribal approach can be effective in promoting cessation to a wide array of tribal groups. ANBL was developed using focus groups and a modified Suitability Assessment of Materials scoring process to ensure cultural appropriateness of materials (Daley et al., 2009). A cessation and prevention Web site also was adapted by conducting focus groups with urban AI/Alaska Native youth but has not been evaluated for impact (Taulii, Bush, Brown, & Forguera, 2010).

Tailored programs provide an important and necessary opportunity to recognize the cultural and traditional values and the unique relationship with sacred tobacco that exists for AI smokers (Struthers & Hodge, 2004; Unger, Soto, & Thomas, 2008). For Ojibwe people, tobacco is seen as the root and foundation of the culture. Historically, sacred tobacco for Ojibwe people was in the

form of Kinnickinnick or red willow, used for ceremonial activities and in medicinal and healing rituals (Struthers & Hodge, 2004). Sacred tobacco may be burned in a pipe to carry offerings to the Creator or given as a gift to an individual; however, in some instances, commercial tobacco is used in place of traditional tobacco for ceremonial purposes (Forster, Rhodes, Poupart, Baker, & Davey, 2007).

Because examples of culturally tailored programs for AIs are so limited, it is important to learn as much as we can about programs like Wiidookowishin that have demonstrated success helping commercial tobacco users quit smoking. Understanding the elements that contribute to successful recruitment and enrollment may be as important as examining the results, to inform program administrators and funders as they design programs to reduce commercial tobacco use among AIs. A previous outcome evaluation demonstrated that the program was successful at achieving a 21.8% quit rate among participants 3 months after program completion (D'Silva et al., 2011). Therefore, the purpose of this qualitative process evaluation was to examine the elements that contributed to successful recruitment and enrollment in the program.

HISTORY OF THE WIIDOOKOWISHIN COMMERCIAL TOBACCO CESSATION PROGRAM

The Fond du Lac Reservation is located in rural northeastern Minnesota. Fond du Lac has a population of 4,174 (U.S. Census Bureau, 2013). Individuals are enrolled in federally recognized tribes, with the majority of the members from the Fond du Lac Band of Lake Superior Chippewa, one of the seven Ojibwe tribes located in Minnesota. ClearWay MinnesotaSM began funding commercial tobacco cessation efforts at Fond du Lac in 2004. Sessions are held at the Min No Aya Win tribal clinic located on the reservation, as well as at a satellite clinic, Center for American Indian Resources (CAIR), in nearby Duluth, Minnesota.

As is the case for most Minnesota tribes, the majority of Fond du Lac's enrolled members live off the reservation, with many residing in the Twin Cities metropolitan area (Minneapolis and St. Paul). An estimated 22,617 AIs, 37% of the entire AI population in the state, reside in this urban area (U.S. Census Bureau, 2013). In 2007, Fond du Lac opened the Mashkiki Waakaaigan Pharmacy in Minneapolis to dispense medications to tribal members living in the Twin Cities metropolitan area as well as to members of all federally recognized AI tribes living there. Referrals to the pharmacy come from local clinics and providers that serve the urban AI population. In 2008, the Wiidookowishin program was expanded to make tobacco dependence treatment services available to the urban AI population. Two pharmacists were trained as tobacco treatment specialists to provide individual counseling using the Wiidookowishin curriculum onsite at the pharmacy.

Tailoring the Curriculum for Fond du Lac Members

Fond du Lac developed the culturally specific Wiidookowishin program in collaboration with community members and cessation experts. From 2005-2007, modifications were made to the American Lung Association Freedom from Smoking program by incorporating the unique cultural and historical characteristics, and values and traditions, of the community. Adaptations to the curriculum were made based on suggestions from the program coordinator, cessation specialists with expertise specific to the Fond du Lac community, and key stakeholders in the community. To make the program culturally appropriate, Ojibwe language and stories were incorporated into the curriculum. Another vital adaptation was the inclusion of information on use of traditional tobacco. The curriculum incorporates teachings on how to use tobacco as a sacred item in ceremonies and in offering prayers to the Creator. These teachings are designed to help participants understand the difference between sacred tobacco use and commercial tobacco abuse. The curriculum also was adapted to incorporate proprietary Native knowledge and wisdom fundamental to AI culture and lifeways on Fond du Lac.

After these adaptations were made, the revised curriculum was pretested with community members; as a result, several additional changes were made. The original curriculum of eight group sessions was revised to four, in recognition of participants' concerns about the level of time commitment and staff concerns about retention. In addition, an individual counseling model was developed apart from the group counseling format for those who expressed privacy concerns related to the group setting (D'Silva et al., 2011). Each session in the current curriculum—for both individual and group counseling—is 1 hour long and covers the following topics, with the culturally specific information described above incorporated throughout each session:

- Session 1: Thinking about a Healthier Life: Quitting Smoking - Information on building motivation, making the decision to quit, and the costs of smoking.
- Session 2: Starting the Journey - Information about coping with urges and making a plan to quit.
- Session 3: Quit Day: A New Beginning & New Skills for a Healthier Life - Information about social support and weight management.
- Session 4: Staying on the Road to a Healthier Life - Information about exercise, assertive communication, and relapse prevention.

Services are individualized to each person, so some participants complete the sessions weekly, and some allow more time between sessions.

Program Implementation

Program participants are recruited through a variety of systems and outreach approaches. On the reservation, a significant amount of referrals are made by internal tribal clinic staff and providers who have all been trained in tobacco dependence clinical guidelines (Fiore et al., 2008). Other clients come directly from established relationships and referral systems with outside social service organizations, clinics, businesses, and networks. In addition, an on-reservation tobacco health educator actively recruits through community health fairs, powwows, elders' meetings, and any festival or event where the community gathers. The majority of participants in the pharmacy program come from provider referrals from local clinics that serve AIs in the metropolitan area.

A tobacco health educator is employed at the Min No Aya Win and CAIR sites to conduct outreach and recruitment and to provide the Wiidookowishin program. The tobacco health educator works with each participant to develop a program individualized to his/her preferences and timeline, allowing for sessions to be conducted in groups or individually to maximize comfort level. Some participants contact the tobacco health educator between sessions for additional support. To provide additional opportunities for people to obtain cessation services, pharmacists at both the reservation and urban sites are also trained to provide cessation counseling. The tobacco health educator and pharmacists receive training from the Mayo Clinic Nicotine Dependence Center, which is accredited by the Council on Tobacco Treatment Training Programs. While outreach is a main component of the tobacco health educator position at the reservation locations, the metro pharmacy does not have an outreach staffing component.

Procedures are in place to encourage the use of both counseling and pharmacotherapy. At both the reservation clinic and the metro pharmacy, nicotine replacement therapy (NRT) and cessation medications are offered free of charge to eliminate financial barriers. After a medical staff member discusses commercial tobacco use with the client, a referral is given to the tobacco health educator. The client must first enroll in the Wiidookowishin program in order to receive cessation medication. After the client completes the first counseling session, the tobacco health educator provides a pharmacy slip to the client that verifies enrollment in the program and allows the fulfillment of the prescription. A pharmacy slip from the tobacco health educator is required at every medication refill to ensure continued compliance with the counseling protocol. Small incentives, such as water bottles or craft supplies, are provided throughout the program and all clients are offered a \$25 gift card after the completion of all four sessions.

Participation Numbers

The Wiidookowishin Program has been successful at enrolling its members in commercial tobacco cessation programming. Since inception in 2004, the program enrolled 1,191 people at the Min No Aya Win and CAIR locations and another 142 at the metro pharmacy site. The average participant enrollment per year, averaged across 8.5 years, is just over 140 in the non-metro sites, or approximately 3.3% of the total population. Using data from the recent Tribal Tobacco Use Project (AI Community Tobacco Projects, 2013), which found that 59% of Minnesota's AIs smoke commercial tobacco, Fond du Lac has potentially enrolled 5.6% of smokers per year in cessation services.

METHODS

It is important for those seeking to partner with AI communities to approach that work with respect and understanding for nations' sovereignty, unique history, and self-determination. While this approach is essential in any evaluation work, it is especially so in tribal communities. Tribes have often had negative experiences with outsiders who come into their communities and gather data and information with little consideration of the communities' needs or perspective. This is often called the "helicopter approach" (Gray, Gillis, Hill, Abe, & Martin, 2008). In recognition of this history, the evaluation plan and methods were reviewed and approved by key program staff at Fond du Lac, and their input was incorporated to reflect tribal expertise. Evaluation instruments then were reviewed and approved by the Fond du Lac and Indian Health Service Institutional Review Boards.

Evaluation Design

Qualitative interviews were identified as the best method to provide rich, deep data and to allow respondents the greatest opportunity to share their impressions of the program. The process evaluation design included key informant interviews with Wiidookowishin program participants ($n = 20$) to assess motivation for participating in the program and how they became aware of its availability, and with stakeholders from clinic and community settings likely to refer people to services ($n = 13$) to learn more about their impressions and understanding of the program. The design also included staff interviews with the tobacco health educators and lead health educator, as well as document analysis of quarterly program reports to ensure the evaluator understood the program context and implementation. Key informant interviews were semi-structured to enable follow-up questions to ensure understanding of responses. Interviews were conducted by the lead evaluator.

Sample

During the evaluation period (August 2011 to January 2012), the Fond du Lac program enrolled 74 participants, with 20 (27%) completing all four sessions of the program, 6 (8%) completing three sessions, 28 (37%) completing two sessions, and the remainder at least one session.

The evaluator and program staff determined that 20 participants, or roughly one quarter of people enrolling in the program during the study period, would provide broad representation of participants. The evaluator sampled individuals who participated in the Wiidookowishin program by selecting every fourth name on the full list of program participants in order of program enrollment date. When a participant declined ($n = 1$) or was unreachable ($n = 4$), the next name on the list was selected. The sample included participants from all three locations where services are provided—Min No Aya Win clinic ($n = 15$), CAIR ($n = 3$), and the metro pharmacy ($n = 2$). Participants were interviewed at various stages in their cessation process, so some had completed the program and some were attending sessions at the time they were interviewed, but all had attended at least one session.

The evaluator worked in partnership with Min No Aya Win's lead health educator to identify a representative sample of stakeholder respondents who had awareness of and some familiarity with the cessation program. Stakeholders included representatives from the medical and dental clinic staff; the Women, Infants, and Children (WIC) program; the chemical dependency treatment center; and community centers.

Prior to starting the interviews, the evaluator described the evaluation to participants, including the voluntary nature of the interview. Interviewees signed a consent form and were given a copy of it to keep, and also received a \$25 gift card to a local merchant as an incentive for participation. Interviews were conducted at the clinic settings where cessation services are provided to increase comfort level and convenience, unless a respondent indicated a preference for another location, which was accommodated as requested. Fond du Lac staff provided space for interviews in a clinic conference room located distant from the tobacco health educator's office, to protect respondents' confidentiality.

Cessation program participants were interviewed about how they learned of the program; what motivated them to participate; their general impressions of the program content and implementation (including the tobacco health educator who provided the programming); and their views on the value of traditional tobacco inclusion in the curriculum, availability of NRT and medications, and having programming conducted by Fond du Lac.

Stakeholder interviews addressed familiarity and interactions with the program, awareness of Fond du Lac's adaptation of the program, inclusion of traditional tobacco, and general impressions.

Staff interviews were conducted to ensure the evaluator understood the program and how it was implemented, and to stay informed of any developments in implementation. The staff interviews ensured that the evaluator had sufficient context and understanding to interpret the participant and stakeholder interviews.

Analysis

Both participant and stakeholder interviews were recorded and transcribed. Transcripts were imported into Atlas.ti qualitative software to facilitate organizing and coding. The lead evaluator coded and analyzed the key informant interviews for common and emergent themes; a second qualitative analyst then conducted a secondary review of the coding. Member checks of findings were conducted with Fond du Lac staff for accuracy and clarification.

Table 1
Elements that Contributed to Successful Enrollment and Participation
in the Wiidookowishin Commercial Tobacco Cessation Program

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| <ol style="list-style-type: none"> 1. Credibility through tribal oversight and administration 2. Systemic commitment to helping members quit 3. Individualized services 4. Tobacco health educator accessibility and flexibility 5. Outreach and community awareness 6. Traditional tobacco education 7. Curriculum tailored to Fon du Lac 8. Tobacco health educator who is AI and from the community 9. Pharmacists engaged in providing cessation services 10. Nicotine replacement therapy and medications; required participation in cessation counseling |
|--|

FINDINGS AND DISCUSSION

Several elements contributed to the Wiidookowishin program's success at recruiting and enrolling participants.

1. Credibility Through Tribal Oversight and Administration

The Wiidookowishin program is administered by Fond du Lac Human Services. Tribal members have confidence in services provided at Min No Aya Win and trust the providers and staff affiliated with it. As stakeholders noted, "This is their clinic." Tribal members believe they will receive competent and confidential services from Min No Aya Win. Many participants expressed

confidence that a program would not be operated by Fond du Lac unless it was high quality. This trust emanates from both confidence in Fond du Lac Human Services and the fact that services provided there are for the Fond du Lac community.

One participant said she would be unlikely to participate in a cessation program if it were offered by an agency not operated by Fond du Lac. Participants distrust mainstream services and frequently have had negative experiences with such agencies. Historical traumas, such as forced removal of ancestors to boarding schools, assimilation, and prohibitions on exercising tribal sacred beliefs, contribute to many tribal members' lack of trust in non-reservation providers. Stakeholders agreed, and often were more candid about specific experiences that would inhibit a tribal member from seeking services outside of Fond du Lac. As one participant said, "That would be like off brand...like that would not be comfortable."

2. Systemic Commitment to Helping Members Quit

All providers are committed to screening for cessation. Treatment providers, doctors, pharmacists, dentists, the WIC program staff, public health staff, and community center directors value cessation and refer people to the program. Screening is a regular part of many providers' interactions with their patients. This systemic commitment means that Fond du Lac community members are continually encountering opportunities to be connected to cessation services. Cessation is seen as part of everyone's work, not just something done by the tobacco health educator.

Stakeholders both within and beyond health services believe cessation is important, and are aware that AI smoking rates are high and that AIs experience disproportionate harm related to commercial tobacco use. Other clinic staff members relate smoking harm to their own programs—whether it is recognizing the value of support to stop smoking while undergoing substance abuse treatment, improving health outcomes for other medical conditions, reducing exposure to second-hand smoke for other household members, or reducing the economic costs of commercial tobacco.

The commitment to cessation continued during a gap in services when a longtime tobacco health educator resigned, leaving the position vacant for several months while a replacement was sought. Despite the popularity of the tobacco health educator who resigned, stakeholders both within the health care systems and in the community were confident that a high level of services would be continued with a new individual. Indeed, while there was an interruption in the level of services during the transition, when the position was filled the new tobacco health educator quickly restored services to their prior levels—indicating that commitment is for the program itself, and is not dependent on an individual person in the position.

Within Min No Aya Win, support from the lead health educator (who oversees the cessation program) has been crucial. While the tobacco health educator position was vacant, the lead health educator kept stakeholders informed of the hiring process, coordinated with the funding agency to ensure continued support, coordinated with pharmacists to ensure that NRT remained available to participants who sought cessation services, and sometimes provided cessation services in addition to his other job. Having a long-established member of the staff deeply invested in the success of the program and committed to its continued viability has been essential to sustaining the program through staffing transitions.

3. Individualized Services

Participants value that cessation services are individualized and tailored to their schedule and comfort level. Many participants desire the privacy of an individual session rather than a group session, and the tobacco health educator accommodates those requests. The small scale of the program is an asset for many participants. When asked if they would seek services from a mainstream provider, many participants suspected programs outside the reservation would be too big and too bureaucratic. More than one said they felt they would just be a number, not a person, at a non-Fond du Lac program. The tobacco health educator's ability to adapt services to each individual's preferences and schedule make the program more accessible for many. As one stakeholder said, part of the goal is to "reduce any barriers" to obtaining cessation services.

4. Tobacco Health Educator Accessibility and Flexibility

Adequate training, expertise, and skill are necessary for staff who provide cessation services. Beyond that, flexibility and accessibility are important to Fond du Lac participants. They find it helpful to know that they can contact the tobacco health educator (or the pharmacist) between scheduled sessions. Knowing they can call with questions or for extra advice or encouragement is valued. Participants feel the tobacco health educator is their advocate and cares about them quitting. An approachable personality—characteristics such as being easy to talk to, comfortable, non-judgmental, friendly, and having a sense of humor—were all reported as important to participants.

5. Outreach and Community Awareness

The tobacco health educator conducts ongoing outreach throughout the community. While many participants come into contact with the program through a referral from a service provider such as their doctor, or via another program in which they participate, participants are also recruited from throughout the community. The tobacco health educator conducts outreach at organizations,

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 MinnesotaSM) 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,

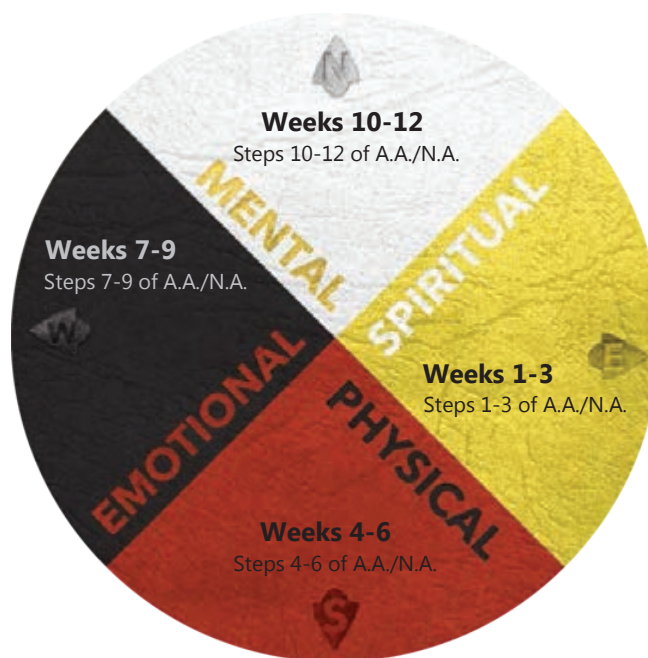
Nagaran, & Hser, 2012). This treatment incorporates drumming, talking circles, the 12 steps of Alcoholics Anonymous (A.A.)/Narcotics Anonymous (N.A.), and *The Medicine Wheel and 12 Steps* program developed by White Bison Inc. (2007), within the conceptual framework of the Medicine Wheel, which is widely 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 from 19-71 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 DARTNA 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 Breathalyzer 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 (<i>n</i> = 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 (<i>n</i> = 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 participant 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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