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Culturally Adapting Caring Contacts for Suicide Prevention in Four Alaska Native and American Indian Communities

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Abstract

Aim: Despite substantial tribal, state, and federal effort, American Indian and Alaska Native (AI/AN) suicide rates have changed little in the last 30 years, prompting attention to new and innovative approaches to this persistent health disparity. Suicide prevention interventions with demonstrated success in other populations may be useful in AI/AN communities. Caring Contacts is a suicide prevention intervention that has been adapted and shown to reduce suicide ideation, attempts, and deaths in other populations.

Methods: We used a community-based participatory research approach to gather qualitative data from community members, healthcare providers, and leaders in four AI/AN communities. These data were analyzed thematically and used to adapt Caring Contacts for use in a subsequent clinical trial with AI/AN people at high risk for suicide.

Results: A total of 189 community members and other health system stakeholders in four tribal communities participated in focus groups and interviews. Caring Contacts was perceived in all communities to be acceptable. Feedback for intervention adaptations focused on the themes

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of trial eligibility criteria; instruments; message frequency, timing, and content; and cultural considerations.

Conclusion: Overall, AI/AN study participants in four diverse AI/AN communities endorsed the use of Caring Contacts for suicide prevention in their communities. Intervention adaptations for use in these communities centered primarily on message frequency and timing as well as expanding access to Caring Contacts. The results of this study may be applicable to other populations that experience suicide-related health disparities.

Keywords

Alaska Native; American Indian; cultural adaptation; focus groups; qualitative; suicide prevention

INTRODUCTION

Social connection is a fundamental human need (Lieberman, 2015). Lack of social connection is associated with increased suffering, pain, and premature death, including suicide (Durkheim, 2002; Holt-Lunstad, 2018). In the United States, suicide is the 10th leading cause of death and kills 2.3 times more people than homicide (CDC, 2017). The US Surgeon General first identified suicide prevention as a public health priority in 2001 and subsequently released the National Strategy for Suicide Prevention, which states that social connections to family, teachers, work, community organizations, and other social institutions are protective factors in preventing suicide (U.S. Surgeon General, 2012).

American Indian and Alaska Native (AI/AN) people comprise a population of more than 5 million Americans and 574 federally recognized tribes with diverse cultural values, beliefs, and practices. Nationwide, AI/AN people have a lower age-adjusted suicide rate than the overall US population or non-Hispanic Whites (NHW) (12.66 vs. 13.42 vs. 17.01/100,000 for 2013–2018), and AI/AN people aged 50 and older are far less likely to die by suicide (8.27) than their NHW peers (21.23). However, some AI/AN demographic groups experience disproportionately high suicide rates. For example, one study found that suicide rates for AI/AN youths and young adults aged 25 and younger are 5.5 times higher in Alaska and 4 times higher in the Northern Plains than Whites of the same age in those regions (Herne, Bartholomew, & Weahkee, 2014).

Despite widespread implementation of suicide prevention strategies such as crisis lines, brief intervention, and evidence-based treatments (e.g., CBT/DBT, Circle of Strength), the age-adjusted suicide rate in AI/AN populations increased 35% between 1999 and 2018 (CDC, 2019). Caring Contacts is a suicide prevention intervention developed by psychiatrist Jerome Motto (Motto & Bostrom, 2001) focused on increasing social connection and has been shown to be effective in reducing death by suicide. During Dr. Motto’s World War II military service, he found that the letters he received provided him with a sense of connection to the world outside of the uncertainty and isolation of war. Later, while working in a psychiatric hospital, Dr. Motto treated thousands of people for suicidality but noticed that many declined to use follow-up services. Drawing from his personal experience, he began sending caring letters to patients who were lost to follow-up 30 days after discharge and tracking. Eight hundred forty-three people were randomly assigned to two groups:

contact or control. Those in the control group did not receive letters. Those in the contact group received a caring letter monthly for four months, which then dropped to bimonthly and then quarterly, totaling 24 caring letters over five years. Fewer in the contact group died by suicide than in the control group. Even 10 years after discharge from the hospital, the rate of death by suicide remained lower in the contact group (3.5% vs. 1.8%), especially during the riskiest time—two years after discharge (Motto & Bostrom, 2001).

Several other studies show Caring Contacts to be effective. A large international randomized controlled trial reported significantly fewer deaths from suicide at 18-month follow-up among suicidal individuals who received telephone calls throughout the intervention (Fleischmann et al., 2008). Another similar study found that postcards and greeting cards reduced hospitalizations, suicide attempts, and suicidal ideation among suicidal people in large randomized controlled trials in Australia and Iran (Beautrais, Gibb, Faulkner, Fergusson, & Mulder, 2010; Carter, Clover, Whyte, Dawson, & D'Este, 2005, 2007, 2013; Hassanian-Moghaddam, Sarjami, Kolahi, & Carter, 2011; Hassanian-Moghaddam, Sarjami, Kolahi, Lewin, & Carter, 2015). Recently, technology-based versions of Caring Contacts have been implemented. Pilot research on Caring Contacts via email and text message showed high feasibility and acceptability (Berrouiguet, Gravey, Le Galudec, Alavi, & Walter, 2014; Chen, Mishara, & Liu, 2010; Luxton, June, & Comtois, 2013), showing the potential for technological approaches to Caring Contacts. Caring Contacts sent by text message was evaluated in a large randomized trial by Comtois and colleagues among active-duty soldiers who were suicidal (Kerbrat et al., 2018; Comtois et al., 2019). They found no effect on hospitalizations or current suicidal ideation at 1-year follow-up but did replicate the Iranian findings of lower risk of a suicide attempt and any suicidal ideation during the followup year. Luxton, June, and Comtois (2013, Luxton, Smolenski, Reger, Relova, & Skopp, 2020), by contrast, attempted to replicate the original Motto study using a 2-year schedule of caring email messages and did not show a difference on death by suicide or suicide attempt. However, this study was underpowered and had a very high level of missing data at follow-up, which may have contributed to the negative result.

Despite Caring Contacts' demonstrated success in the general population, social connection and how it is expressed varies among cultures, suggesting that it may be inappropriate to implement the intervention in certain populations without a cultural adaption process. Previous studies demonstrate the importance and effectiveness of adapting interventions for cultural acceptability (Allen et al., 2006; Barrera, Castro, Strycker, & Toobert, 2013; Boyd-Ball, 2003; Hirchak et al., 2018; Lau, 2006). Adaptations for cultural acceptability typically involve modifying "non-active" treatment components of the intervention: language or style of the intervention, who delivers it, or the treatment setting.

In addition, AI/AN community involvement is important when conducting research in AI/AN communities for two reasons: (1) research designed with and for AI/AN communities maximizes local strengths and resilience and (2) supporting AI/AN communities in self-determination resists the adverse impact of colonialism on AI/AN communities, particularly in relation to developing empirical science. Thus, in our study, people affected by suicide and AI/AN people were invited to participate to culturally adapt the Caring Contacts intervention. This paper reports on the process resulting in the culturally adapted Caring Contacts. The next phase of our research will implement and test the culturally adapted Caring Contacts.

METHOD

Design and Approval

Our qualitative study used a community-based participatory research (CBPR) approach to engage community members, healthcare providers, and leaders in four AI/AN communities to culturally adapt the Caring Contacts intervention for use with diverse AI/AN people. Consistent with the principles of CBPR (Wallerstein & Duran, 2010), the study was designed collaboratively by key stakeholders in the participating communities and university and community-based researchers. AI/AN people were involved in all stages of the study for the purpose of establishing a research relationship with the communities based on equity, knowledge, and action for lasting, positive social change.

Prior to obtaining funding, the university-based researchers collaborated with health system and Tribal leaders in the partner communities to select an intervention to adapt. Caring Contacts was selected by community leaders. Community partners participated in study design, including collecting preliminary data to determine rural communities' capacity to participate in a text-based intervention. The locally relevant institutional review boards and Tribal authorities approved all study activities.

Setting

We selected the study communities to maximize generalizability of findings across diverse AI/AN communities. The names and locations of participating communities are not disclosed to protect community identity. The study occurred in four culturally and geographically diverse AI/AN communities in the United States, including two reservation-based communities and two non-reservation-based communities. One community was urban and three were rural. Study activities took place on a university campus; in tribally owned and operated, Indian Health Service, or other healthcare facilities; in Tribal community centers; and at other public meeting spaces.

Community Advisory Board

A Community Advisory Board (CAB) comprising two AI/AN people from each site guided study development and implementation by providing feedback on all aspects of the study including instruments and interpretation of data, as well as final adaptations of the intervention and study procedures. CAB members were invited to participate based on expertise in local health systems, suicide prevention, behavioral health, and/or cultural knowledge. Four authors and research team members who led CAB meetings are Alaska Native, American Indian, or First Nations (KJ, LN, TS, EEG) with expertise in suicide prevention, behavioral health interventions, and clinical psychology. The CAB met four times throughout the project, including one in-person meeting to build relationships with each other and the study team.

Sample, Recruitment, and Enrollment

Participants at each site comprised three broad stakeholder groups: AI/AN community members, healthcare providers, and leaders. Community members were eligible to participate if they were AI/AN, were at least 18 years old, and ever had, by self-report, (1) experienced suicide ideation or attempt; (2) been affected by the suicide ideation, attempt, or death of a friend or relative; and/or (3) received behavioral health services. Three groups of providers participated, including clinical staff in behavioral, medical, or dental clinics. Leaders included healthcare system administrative, clinical, or Tribal leaders.

At each site, we aimed to conduct up to two to four focus groups each with community members and providers (up to six groups total per site) and five individual interviews with leaders. At an average of 10 participants per group, this sampling strategy would theoretically yield a sample of 80 to 160 community members, 80 to 160 providers, and 20 leaders. Leaders' schedules often preclude participating in focus groups, and our prior experience suggested that interviews would yield higher-quality data with this group than focus groups. Provider schedules are easier to coordinate with appropriate institutional support, and participation can be effectively incentivized by scheduling focus groups during the lunch hour and providing food. Sample size was determined by our experience doing research in these and other Tribal communities, Dr. Nelson's prior experience in AI/AN communities with text messaging interventions for smoking, as well as considerations of data saturation (Malterud, Siersma, & Guassora, 2016). Given the cultural and geographic variability of the four participating communities—and our intention for the adapted intervention to be effective in diverse AI/AN communities—we decided to err on the side of oversampling rather than undersampling to ensure that a broad range of relevant perspectives and experiences within and across sites would be gathered for consideration in the adaptation. We recruited community members to participate in focus groups through flyers and research booths in healthcare offices and other community settings between November 2016 and February 2017. We recruited providers and leaders to participate in interviews through email. All participants provided informed consent to participate and allowed research staff to retain their information for follow-up focus groups and interviews.

Data Collection

We conducted separate focus groups with community members and providers that lasted approximately 2 hours each, guided by a semi-structured set of questions. We conducted semi-structured interviews with leaders that lasted approximately 1 hour. Focus groups and interviews were audio-recorded and transcribed verbatim. All community member participants received a $50 gift card to a local retailer and provider participants received $40, except those who were prohibited by workplace policies from receiving compensation during work hours.

Phase 1—A total of 21 focus groups and 14 interviews were conducted in phase 1. Each focus group/interview began with a presentation that described the Caring Contacts intervention, including how previous studies used the intervention with various populations, and outlined the clinical trial design and procedures (e.g., instruments, data collection schedule). Following the presentation, a semi-structured guide (Appendix A) was used to elicit participant perspectives on trial procedures and on the intervention (i.e., content, tone, and structure of the caring messages). Questions prompted input from participants on how to improve study recruitment and retention and intervention acceptability and effectiveness at all four study sites. Participants all completed a brief demographic questionnaire.

Phase 2—After phase 1 data analysis was complete (described below), preliminary adaptations were made to the study design and intervention and we met again with some phase 1 participants to request feedback. All phase 1 participants who had consented to be recontacted were invited to take part in a second round of semi-structured focus groups and interviews. After a brief review of the study design and Caring Contacts intervention, we presented key findings from phase 1 and shared preliminary adaptations to the intervention and study procedures that the researchers had made based on analysis of phase 1 data. We asked participants for concerns, questions, and other feedback for adapting the intervention for their communities. As with phase 1 data, focus groups/interviews were audio-recorded and transcribed verbatim for analysis.

Data Analysis and Adaptation

We used an iterative, inductive approach to analyze data from phases 1 and 2. Phase 1 data analysis was guided by a grounded theory approach to establish frequent, dominant, or significant themes and subthemes within and across study sites (Charmaz, 2014; Thomas & James, 2006). We uploaded transcripts to Dedoose (Version 7.0.23 2016), a secure web-based program for qualitative data analysis. Several team members reviewed the data and then met to discuss emergent codes and develop a codebook with corresponding code definitions. We organized codes into two overarching domains (study procedures and intervention procedures) and seven specific domains (recruitment and enrollment, outcome measures and instruments, participant experience, cultural considerations, message timing/frequency, message content, and modes/mechanisms of delivery).

To increase reliability and validity, investigator triangulation was utilized (Moon, 2019). Five researchers coded phase 1 transcripts (KJ, JA, JS, EEG, LN). Transcripts were independently coded and compared to establish inter-rater reliability (Charmaz, 2014; Patton, 2015). Each coder was paired with every other coder (e.g., KJ with JA, KJ with JS, KJ with EEG, KJ with LN); frequent discussions were held to reconcile discrepancies between coders, and data were recoded as needed to ensure consistent application of codes across and within transcripts. For phase 1 data, researchers extracted the coded excerpts and organized them into an Excel spreadsheet by theme, site, type of event (focus group or interview), and primary respondent type (community member, provider, leader). We then summarized generalized ideas and feedback from these excerpts. These data were then used to make preliminary changes to the study procedures and instruments and intervention (message content, structure, and timing) to share with participants in phase 2 focus groups and interviews.

The purpose of phase 2 was to validate the findings from phase 1 by returning the results to participants. This process of member checking aligned with the CBPR approach by encouraging participants to modify and confirm the interpreted data from phase 1 (Birt, Scott, Cavers, Campbell, & Walter, 2016). Participant comments and feedback on the initial adaptations to the Caring Contacts intervention and study procedures were compared across and within study sites to assess overall and site-specific satisfaction and concerns with the proposed changes. Findings were then applied to the study design and intervention to make final adaptations prior to implementation of the clinical trial.

RESULTS

A total of 174 people participated in phase 1 focus groups ($n = 160$) and interviews ($n = 14$), including 113 community members, 50 healthcare providers, and 10 tribal and/or health system leaders. Sixty-seven percent of participants identified as female and 49 percent were in the 45–55+ age range (Table 1). A total of 83 individuals participated in phase 2 focus groups ($n = 75$) and interviews ($n = 8$), including 45 community members, 34 healthcare providers, and 3 leaders (Table 2).

Of the 83 participants who returned to phase 2 from phase 1, 15 new participants took part in phase 2 who were not previously involved in the study. Half of participants reported personally experiencing suicidal ideation in their lifetime and 59% reported losing a friend or relative to suicide (Table 3). Key themes in the data that were used to adapt the Caring Contacts intervention are described in Table 4.

Culturally Adapted Caring Contacts intervention

Recruitment and Eligibility—Participants recommended using social media to promote the study, affirming that even in rural locations most people use these platforms. Participants also recommended flyers and radio advertisements and emphasized that news commonly spreads by word-of-mouth in their communities.

Participants recommended removing the proposed age limit (18–34 years of age) to allow older and younger participants to enroll. Their rationale was that while AI/AN suicide is most prevalent in this age group, it occurs in younger and older people as well. Thus, the intervention should be available to people of all ages who are at high risk for suicide. Although AI/AN youths have one of the highest rates of suicide in the United States (CDC, 2014), participants understood that due to past research misconduct with Tribal communities, doing research with those younger than 18 is a sensitive issue and it may not be feasible to include them in the initial culturally adapted Caring Contacts trial. Second, participants recommended that cell phones should not be required to enroll, allowing individuals without a phone and those who prefer postal mail or email to participate.

Outcome Measures and Instruments—Proposed instruments and measures assessed social connectedness, substance use and treatment history, mental health symptoms and treatment history, trauma and suicide history, risk and protective factors, and general demographics. Some measures were previously developed and validated in AI/AN populations and not modified in this study. Seven instruments and measures were adapted based on stakeholders' feedback (Table 5). Reading levels were reduced to Flesch Kincaid level 8.0 or lower on all instruments. Participants found that assessments often contained scientific jargon that may not be suitable for a lay audience; as a result, we removed or replaced these words. Some measures originally contained multiple questions in one and participants indicated these should be broken up into single questions.

The Suicidal Ideation Questionnaire (SIQ) Junior contains 15 questions that identify suicidal thoughts in the past month. To improve reading comprehension, participants suggested using the “junior” version instead of the original 30-question version. Scores >32 are considered high-risk and predictive of suicide attempts and will be used to screen potential Randomized Controlled Trial (RCT) participants (Table 5, item A).

As suggested, we added four common methods of suicide in each community to the Suicide Attempt and Self-Injury Count (SASI) assessment (Table 5, item B). The additions of the SASI methods of suicide were as follows: (1) drove recklessly on purpose, (2) walked on train tracks, (3) walked out into traffic, (4) and went out into dangerous cold to freeze on purpose (urban site only). Researchers concluded from focus groups that assessing participant loneliness and social supports would be important to determining the role of connectedness in this study context and AI/AN communities. In response, we added the Duke-UNC Functional Social Support Questionnaire, Loneliness Scale, and Social Distress Scales (Table 5, items F–H). In the Exposure to Suicide Questionnaire (Table 5, item P), participants were originally asked whether they ever knew someone who died by suicide. That question was followed by a prompt to identify their “blood relation” to the person who died by suicide. Focus group participants in Alaska cautioned that this is a Western way of viewing kinship and could alienate and offend people if asked in the clinical trial. Participants explained that invoking a question about biological relations regarding suicide could imply that suicide is heritable and cause risk for psychological distress. Researchers amended this question by removing it completely from the assessment instruments.

Participant Experience—Focus group participants provided several suggestions on how to improve the cultural aspects of the participant experience. First, they generally disliked the randomized controlled trial design. Focus group participants cited that with suicide prevention being a high priority area for public health research, it seemed like people who were assigned to the control group were going to “get less treatment” and this did not “feel right” to participants. Researchers noted the control condition needed a more effective explanation of “best available care as usual.” All available services for mental health, wellness, and suicide prevention define “best available care as usual.” This includes increasing participants’ awareness of available community services. In response, focus group moderators outlined available services in each community and clarified that all participants would receive resource guides and crisis information and could be connected to other services for wellness and suicide prevention in their community through study staff. Researchers explained that because the intervention is still unknown to be effective in a Tribal setting, a control group is needed to ensure no harm is caused unintentionally.

Second, participants advised that trial participants should receive individual, respectful treatment from the person delivering messages and conducting baseline interviews. They stressed the importance of developing rapport and trust before gathering such personal and often stigmatized information. Participants emphasized the need to provide a comfortable environment for the baseline. Items such as snacks, coffee and tea, tissues, and/or pillows on the chairs could help decrease the institutionalized atmosphere found in typical suicide prevention programs. Almost all participants favored having the baseline session in person but accepted phone and/or video teleconferencing if it meant those in rural villages would have access to the intervention.

Message Frequency, Timing, and Content—Overall, participants found the adapted messages to be acceptable. They liked the use of AI/AN languages in the messages and the inclusion of information in messages about local seasonal and cultural events without putting pressure on the person to attend. Examples of original and adapted messages can be found in Table 6.

Participants favored brief and straightforward messages with a sincere tone, avoiding messages containing metaphors and needless verbiage. Participants widely supported increasing the number of messages from the originally proposed 11 messages to 25. They agreed the timing of messages should be adapted to each site to ensure that they coincided with important seasonal and/or cultural activities as well as higher-risk times of year at the site. Because of these suggestions, researchers implemented a new message timing schedule that included 25 messages throughout a 1-year period: during their baseline, once a week for 6 weeks, every other week for 18 weeks, and then monthly for 7 months. In addition, messages will be sent on the participants' birthday and one before the December holiday season.

Message Delivery—Before the adaptation process, this Caring Contacts trial was intended to be delivered only using text messaging by research staff. Focus group and interview participants overwhelmingly supported the idea of including other modes of message delivery such as email or postal mail to make the study more inclusive across age groups, financial situations, and other sociodemographic factors. For the culturally adapted trial, participants will choose and indicate on intake forms their first and second choice of contact. As an example, a participant who chooses to receive messages primarily by text and secondarily by postal mail would receive most of their messages throughout the year by text with a few delivered by mail on a greeting card.

Cultural Considerations—Community members, medical and behavioral health providers, and Tribal leaders made similar suggestions with some minor, community-specific variations. Participants made three message recommendations: (1) saying hello and goodbye in the AI/AN language of the sender and/or receiver, per participant preferences; (2) using cultural terms and/or activities to engage participants and foster cultural connectedness (e.g., steam bath/sweat, beading, pow-wows, subsistence activities); and (3) sending messages on a seasonal schedule to coincide with locally salient cultural activities. A comparison of an original message and an adapted message is shown in Table 5.

Focus group participants advised study staff to be patient and accept silence and pauses in participants' responses when conducting assessments for the clinical trial. Participants mentioned that it is important to be mindful of language differences; participants may use slower cadence in conversation due to personal or cultural differences, and English may not be everyone's first language.

DISCUSSION

The objective of this CBPR qualitative study was to adapt the Caring Contacts intervention to be used as an empirically based suicide prevention intervention with relevance, utility, and respect for local cultural values, languages, and ways of knowing. Collaboratively adapting a strengths-based suicide intervention for use by AI/AN people was built on the importance of community control, empowerment, and sovereignty as key protective factors in AI/AN communities (Kral, Idlout, Minore, Dyck, & Kirmayer, 2011; Chandler & Lalonde, 2008). AI/AN community members in four culturally and geographically diverse settings led the adaptation process, ensuring that the resultant intervention is relevant, acceptable, and useful for preventing suicide in a variety of AI/AN communities across the United States.

Most changes to the original intervention involved the content and frequency of the caring messages. These changes included adding local cultural references and increasing the number of contacts over the 1-year period from 11 to 25 messages. The assessments became more meaningful, culturally appropriate, and acceptable to AI/AN participants by modifying language, adding culturally responsive options, and standardizing the reading level to Flesch Kincaid level 8.0 or lower on all instruments. At the urban site, the Tribal research review committee, operating on principles of self-determination (Hiratsuka et al., 2017), decided the study should be delivered in a pragmatic fashion, as the intervention would be implemented if found to be effective. To do this, researchers collaborated with organizational leadership and clinical staff working in varied behavioral health departments to deliver the caring messages instead of researchers. Other sites chose to operate the study in coordination with but distinct from behavioral health programs, often because of limited organizational capacity.

The results challenge the notion of a single treatment for all groups of people. For AI/AN populations, a collaboratively designed, community-based approach grounded on local knowledge is best practice. Our results also underscore the need to adapt RCT and other research protocols to specific target populations and healthcare systems; otherwise, data can become compromised by low fidelity, selection bias due to poor participation or retention, confounding bias from failure to measure relevant factors, and errors of misclassification and inaccurate measurement. The adapted RCT developed in our study will increase the internal and external generalizability of our findings and represents a greater contribution to advancing suicide prevention programs in AI/AN communities.

Limitations

AI/AN communities across the United States share many similarities but also vary widely in languages, ceremonial practices, and traditions. Findings may not fully represent the diversity found in AI/AN communities. However, those who participated represent nearly half of the 573 federally recognized tribes in the United States. Additionally, due to the need for internal validity, not all feedback received from focus groups and interviews may be included in the RCT.

RCT and Future Directions

Among the four study sites, a total of 1,200 participants will be enrolled and randomized into one of the two arms of our culturally adapted Caring Contacts intervention. The intervention group will receive best available care as usual plus 25 adapted messages over 1 year, and the control group will receive best available care alone. Although focus group participants shared concerns about the control group receiving “less,” they became more accepting after a comprehensive overview of services available to participants. Data collection from the RCT is expected to be completed by March 31, 2021.

Based on our findings, future research might include testing Caring Contacts with AI/AN youth. Focus group participants mentioned that youth are likely to accept this intervention because texting is ingrained in our society as a form of enhancing human connection. If Caring Contacts shows that connectedness helps reduce suicidality, dissemination and implementation research may be conducted to establish its benefits more broadly. In addition, cost-benefit analysis and cost-effectiveness research could provide critical data for assessing financial sustainability of Caring Contacts. If findings support it as a low-cost, high-impact suicide prevention intervention, healthcare centers and other programs could use Caring Contacts to improve access to suicide prevention programs.

CONCLUSION

To date, no other research has utilized human connection to reduce suicidality in AI/AN people. This paper describes an adapted Caring Contacts model to create an innovative and easily disseminated suicide intervention for AI/AN communities. With these findings, we seek to improve suicide prevention interventions developed for and with AI/AN people using cultural protective factors—namely connectedness. The findings from this study reinforce the importance of cultural adaptation even when an existing intervention appears to align with the cultural values and preferences of the target population. This work also provides a guide for cultural adaptation of other interventions for AI/AN and other underserved populations.

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Appendix A.

Focus group and interview moderator guide.

Focus group and interview moderator guide
General feedback
How do we make this study relevant and meaningful in your community? Do you think the study will work and if not, why? How can we make it better? From who else should we get input?
Eligibility and recruitment

What do you think about the eligibility criteria? What do you think about the recruitment plans? How can we improve those parts of the study? What might make it more appropriate and acceptable in your community?
Enrollment and participation
What do you think about the plans for enrollment? How could this be better? What else should/could we be thinking about this part of the study?
Interview items
What doesn't make sense? What might be uncomfortable to answer? How can we ask these questions better?
Message timing and content
What do you think about the timing schedule? What would you change? Should we add messages around local events, holidays, seasons, or activities? What should the messages say? Should we add content to the messages about local events, holidays, activities?
Follow-ups
What should we ask about in these interviews? Which interview items should we use? Which ones should we not use? How many people should we interview at each site? Should we interview participants from both study groups?

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TABLE 1.

Age ranges of all focus group participants by site.

	Urban		Reservation 1		Small Town		Reservation 2		
Age Ranges	**Male**	**Female**	**Male**	**Female**	**Male**	**Female**	**Male**	**Female**	**Total**
18–34	5	13	2	12	5	12	8	7	64
35–44	4	4	3	5	0	1	2	3	22
45–54	1	10	5	15	1	3	1	6	42
55+	8	5	6	7	0	2	5	9	42
Total	18	32	16	39	6	18	16	25	170[*]

[*] Only 170 of the 189 participants chose to respond. 19 responses (10%) are missing from the table.

TABLE 2.

Participant type by site.[*]

	Urban			**Reservation 1**			**Small Town**			**Reservation 2**		
	CM	**Ldr**	**Pro**	**CM**	**Ldr**	**Pro**	**CM**	**Ldr**	**Pro**	**CM**	**Ldr**	**Pro**
P1	31	3	19	34	6	15	17	0	7	31	1	9
P2	7	0	19	13	2	1	9	0	3	16	1	11

[*] Numbers may not add up equally due to repeat and new participants in phase 2. *Some demographic forms are missing. CM: contingency management; Ldr: leader; Pro: provider.

TABLE 3.

Experiences of all focus group participants with suicide.

Have you ever experienced suicidal ideation, thought, or attempt?	
Yes	50%
No	42%
Prefer not to answer	8%
Have you ever lost a loved one to suicide?	
Yes	59%
No	38%
Prefer not to answer	3%

TABLE 4.

Themes identified for adapting Caring Contacts clinical trial in AI/AN communities.

Themes	Subthemes	Example quotes
Intervention characteristics	• Message timing and frequency • Message form, content, and tone • Implementation issues	"Maybe an extra message at Christmas and an extra message at … early spring." "Maybe, like, equinox?" "Holidays too. Holidays are a big time for people, especially around here. People don't have enough funds to make their ends meet or whatever else. In our culture we've got away from our value system where you invite people and you visit and share your food, because it's not just food, it's medicine." "… it could be like phrases here and there because not everybody speaks their languages in their regions. Yup'ik is a strong language but still, saying cama'i instead of hello or quyana … stuff like that, pepper the texts with words that people could easily figure out what that is in whatever language."
Study characteristics	• Eligibility criteria • Recruitment methods • Instruments/measures • Participant experience	"It ain't just 18–34 year olds that think about suicide. I'm 53 years old and I think about it almost every day." "I'm wondering about that reading level. Intentionally—I don't know if they would get that word, unless the context may work with it, but just something more that's … I think it's even less than eighth-grade level." "You have just asked something. … You've just sat with somebody for 2 hours and you invest incredibly personal information and made them go deep into their own self. You will be connecting on a level that is not your average person's level. You've been given the privilege and the honor to hear this information. You need to respect that and thank that person for that and continue that connection. If you go from that to a standardized something, you've discounted what you just had I think."
Community-specific factors related to suicide prevention	• Suicide risk factors and methods • Resources and responses • Cultural considerations	"Instead of asking, 'how are you doing, how's life treating you?' Those are good questions, but to see it from a Native point of view, it's different. I think of my parents and my grandparents, our ways are different. Our language is different. To make it culturally acceptable somehow like, come and make some fry bread, or let's make a harpoon, or something, anything to spark that. Spark something in the hopelessness." "I think that with [community] it's so diverse. You can have someone that's identifiably Native that's not traditional at all, you can have someone that's not identifiable that's very traditional, and vice versa." "That's our number one thing, is stigma, around here, and so, even me asking for help is going to be a big deal. So if I ask for help, or you've identified, and then you just say, Hey, here, contact these people, and that's it, is there any follow up to that?"

TABLE 5.

Instrument and measure purposes and changes.

#	Instrument/measure	Purpose	Cultural adaptations
A	Suicidal Ideation Questionnaire (SIQ-JR)	Measures suicidal ideation and will be used to determine eligibility with score of <32. Validated with AI/AN individuals	Switched to the junior version that has more concise language and a lower reading level, so it is more inclusive of variations in reading ability.
B	AI/AN Suicide Attempt Self Injury Count—Lifetime/Recent (SASI Count)	Determines first, most recent, and most severe attempt or SI	Improved language for clarity. Added methods of suicide that are common in AI/AN communities. Added assessment of concurrent drug/alcohol use with SI or attempt.
C	AI-SUPERPFP Health Services Measure	Collects information on use of medical services	Removed non-critical or deficit-based questions.
D	Caring Contacts Experience Survey	Satisfaction survey for overall study	Clarified language.
E	Interpersonal Needs Questionnaire (INQ)	Measures belonging and perceived burdensomeness	N/A
F	Duke-UNC Functional Social Support Questionnaire (FSSQ)	Measures perceived social support	New measure added after focus groups and interviews.
G	Loneliness Scale	Measure of loneliness that is part of the NIH Toolbox Social Relationship Scales	New measure added after focus groups and interviews.
H	Social Distress Scale	Brief measure of two dimensions of social distress —Perceived Rejection and Perceived Hostility. Also part of the NIH Toolbox	New measure added after focus groups and interviews.
I	Social Contact Questionnaire	Characterizes the participant's use of social contact	Edited to include different methods of social contact such as texting, email, postal mail, and social media.
J	Client Satisfaction Survey	Evaluates standard community mental healthcare; will be used to evaluate satisfaction with outpatient healthcare identified on the AI-SUPERPFP	N/A
K	Center for Epidemiologic Studies Depression Scale (CES-D)	Identifies depressive symptoms	N/A
L	Addiction Severity Index—Native Version	Measures lifetime and current drug and alcohol use	Removed demographic questions that overlapped with our Demographic form. Alaska site removed questions on reservations. Moved a question regarding services utilization to the AI-SUPERPFP.
N	Brief Resilience Scale	Assesses resilience as the ability to recover from stress	N/A
O	Acquired Capability for Suicide Scale	Assesses one's fearlessness about suicide	N/A
P	Exposure to Suicide Questionnaire	Assesses for possible contagion	In Alaska only, removed question asking participant to identify blood relation of person they lost to suicide.
Q	Historical Loss Scale	Assesses the frequency of thoughts regarding specific aspects of historical trauma	N/A
R	Trauma History Screen	Assesses personal experiences and level of distress from traumatic events	N/A
S	American Indian Enculturation Scale	Assesses frequency of participation in Native cultural activities	N/A
T	Baseline Demographic Interview	Questionnaire that asks about gender, sexuality, religion/spiritual preferences, relationship status, # of children, employment, living situation, education level, etc.	Added religious groups common to each community.

#	Instrument/measure	Purpose	Cultural adaptations
U	UW Risk Assessment Protocol (UWRAP)	A step-by-step suicide risk management tool	N/A

AI/AN: American Indian and Alaska Native; SI:suicidal ideation.

TABLE 6.

Examples of adapted messages.

Original messages	Adapted messages
John—It's the CARE Team. Hope you've had a good week. careteam.org	Osiyo (Hello) John! It's the CARE team. Sending good thoughts your way. There's a list of some things happening that you might be interested in at stayincontact.org Hau (Hello) John, it's the CARE team. Wanted you to know I'm praying for good things for you. There's a list of some things you might find helpful at stayincontact.org
Hi John, hope all's well and you're taking good care of yourself. careteam.org	Aang (Hello) John, AFN is coming up. If you want to go, you can see the schedule of events here stayincontact.org Hey Maske (friend), I just wanted to remind you that you're important and let you know I'm thinking of you!