Rigor and Cultural Sensitivity for Qualitative Research

The following standards of rigor are outlined by this specific methodology. Peer debriefing occurred weekly with a colleague during data analysis. Every step of creating the data-set from existing data was saved and documented, creating an audit trail, which is a qualitative term elucidating how and when decisions were made throughout data collection and analysis process. Multiple recording devices were used to create the primary record, including video, audio, and written transcription. The first author has also engaged in a decade of research with Tribe A, and six years with Tribe B—thus fulfilling the requirement of prolonged engagement in the field. A simple and understandable vocabulary was used for all field notes. Finally, a flexible observation schedule was used. Likewise, regarding cultural sensitivity, following Burnette et al.'s (2014) research recommendations, the first author worked with multiple *cultural insiders* from each tribe, including *hiring two tribal research assistants* from both Tribe A and Tribe B, who assisted with data collection and analysis (Table 1). Bi-weekly research team meetings included negative case analysis, which involved discussing and explicating why some data did not fit overarching interpretations. Likewise, one tribal member was collecting data concurrently with this project and had other experiences to triangulate with study participants. An outside expert familiar with the methodology reviewed all coding, including coding hierarchy, ensuring fidelity to the methodology.

Data results were compared with existing research for comparison. Finally, multiple coders analyzed the majority of data (74%). In fact, 66% of Tribe A's data and 86% of Tribe B's data was analyzed by two or more coders. Thus, resultant interpretations were triangulated across multiple expert coders, including those from the given tribe(s). For *cultural sensitivity*, a member of each tribe was on the data analysis team and member checks were completed with each available participant to ensure accurate interpretations. To ensure everyone was involved, numerous attempts were made to follow-up with participants. A protocol and script were created for member-checking to ensure consistency in the process. All participants were contacted by either phone or email or both. Among Tribe A's participants, attempts were made to contact the 165 participants with phone numbers on file and attempts were made to contact 132 participants by email. Among Tribe B's participants, attempts were made to contact the 208 participants with phone numbers on file and attempts were made to contact 90 participants by email. Attempts were made by each method at least twice.

Member check information included the results summary, with themes and explanations of themes, interview transcripts (for individual interviews), information about follow-up, and opportunities to discuss or change any information in the transcript or results. To protect confidentiality, group interview transcripts were not shared with participants, but the descriptive summary of results was. Some participants elaborated on findings, yet no participants disagreed with results or interpretations. Consistency checks were completed by the first author during the interviews. She encouraged participants' explanations of their perspectives. Finally, many participants were interviewed multiple times; specifically 72 members of Tribe A (31.6%) and 50 members of Tribe B (24%) were interviewed two to three times.

As stated, Stage 4 has been completed, which involved developing the culturally specific measures, the Family Resilience Inventory (Burnette, Renner, et al., 2019), and the Historical Oppression Scale (2018). We have also completed the development of the intervention through community-based participatory research and a community advisory board. The modified intervention is currently being piloted across two tribal communities. Thus, this method for intervention development has resulted in a precise and culturally relevant intervention that can be tested for efficacy, effectiveness, and broader dissemination and application.

DISCUSSION

This research described community-engaged, culturally sensitive, and in-depth qualitative research, which informs culturally relevant intervention development to address health disparities and violence. Numerous aspects of this research process were critical in uncovering meaningful and culturally relevant outcomes. First, choosing a *culturally appropriate methodology* is crucial to gaining meaningful data and results (Table 1). The critical ethnography chosen was recommended and used with the tribes by the first author for many years. This methodology incorporated several aspects important to working with peoples who have been chronically oppressed, such as an attention to power dynamics. It also includes immersion in the field, which offsets tendencies to misinterpret information from groups which may differ from researchers'. Burnette et al.'s (2014) recommended tools for cultural sensitivity and community engagement in research were integrated throughout the study (Table 1). For example, research was flexible according to the tribal context, allowing data to emerge from culturally appropriate contexts, relying on key insiders to guide this process. The use of life history interviews was a culturally

congruent form of data collection, and interviews were held at times and places that were self-determined by participants, including office buildings, homes, and private conference rooms.

This research was inclusive of all community voices, with sampling from elders, adults, youth, and professionals. Likewise, multiple interview techniques were used to ensure the collection of credible data, depending on what participants preferred, including individual interviews, group interviews (e.g., focus groups), and whole family interviews. Whole family interviews were important to honor the primacy of the family unit, as self-determined by participants. Tribal members were involved and hired throughout the data collection and analysis process, not only receiving compensation for their valuable time, but also cultivating the skills to conduct research in their own communities and advance as future scholars.

Limitations

Though we believe that the use of two tribal contexts allowed for a more nuanced ability to compare and contrast differences in risk and protective factors between tribes, we are limited in our ability to draw generalizations to other tribal populations. Future research should apply this approach to its additional specific tribal contexts. It is imperative that researchers follow tribal protocols for research, ensuring research is ethical and useful for tribes (Burnette et al., 2014). Moreover, research is subject to the ever-shifting political climate and localized context of each given tribe; sustaining the ability to engage, continue, and complete research projects is a delicate process. The real risk of not being able to conduct research and having the research process stalled or stopped altogether is ever present and must be considered before entering the field. Undoubtedly, many researchers will lack the capacity to engage in the level of rigorous data collection, analysis, and member checking that we believe is needed to respectfully and appropriately conduct research with AI/AN communities.

Due to cost and feasibility, interviews were conducted in English; in one interview with an elder who spoke limited English, a family member helped with interpretation. This may pose a limitation, as conducting interviews both in tribal language(s) and English may be the most culturally sensitive approach. This is particularly true given some words in tribal language(s) do not have a precise English translation. The research steps provided here are intended as a rubric with the understanding that they will be tailored according to local context. The importance of a sustained research method built on trust and the respect of tribal insiders cannot be emphasized

enough, but the details such as sample size, outreach, and follow up methods will differ by tribe. Long-term and prior relationships with each tribe are necessary to sustain this in-depth work.

CONCLUSIONS AND IMPLICATIONS

This article provides a roadmap for developing culturally relevant interventions through a rigorous and community-engaged approach to research. When interventions are not culturally tailored or relevant, they tend to be ineffective and may exacerbate existing disparities. (Dixon et al., 2007; Gone & Trimble, 2012). This research *invested resources* (Table 1) into two tribal communities to identify and translate risk and protective factors from the ground up. Although this methodology is demanding in the time and resources it requires, we have found very promising results, which has led to the culturally grounded scales (i.e., the Historical Oppression Scale and the Family Resilience Scale) that have significantly predicted important outcomes, such as ds depressive symptoms (Burnette, Renner, & Figley, 2019). With this groundwork complete, future research could build from extant factors, using a smaller number of focus groups or interviews to culturally adapt it to specific contexts.

It is our hope that this example of community-engaged and culturally sensitive research will be used by other researchers to inform interventions that aim to eradicate disparities, as this approach was designed to do. We are currently infusing culturally specific content with an appropriate EBP, which has an AI/AN cultural overlay. However, without first identifying and translating the culturally specific risk and protective factors, the identification of an appropriate EBP to adapt or develop would not have been possible, or important culturally relevant factors might have been missed (Whitbeck, 2006). The culturally appropriate and community-engaged approach to identifying culturally relevant risk and protective factors across multiple levels is a promising way to eradicate highly concerning AI/AN health disparities.

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