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**From Research to Practice: A Narrative Review of  
Interventions to Reach Rural Native American  
Communities for Health Promotion**

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## **Introduction**

As the indigenous people of North America, Native Americans have unique cultural, social, and economic backgrounds that impact their health outcomes. In particular, many Native Americans have worse health outcomes than other groups in the United States due to their historical exploitation. This has been compounded by a lack of culturally relevant health interventions in Native American communities (Brave Heart et al., 2011). More specifically, many Native Americans suffer from intergenerational trauma due to a history of European colonization and being coerced into assimilating into the culture of those they were colonized by. The forceful loss of their culture has contributed to both physical and mental health struggles in Native American communities (Gone, 2009). Many Native American communities highly value spirituality and its connection to their health and wellbeing, which has rarely been considered in intervention research (Walters et al., 2011).

Native Americans living in remote, rural areas tend to face unique health disparities that affect their quality of life. In recent times, more health promotion interventions targeted at rural Native Americans tend to take into account their cultural norms and values in order to be more effective. Existing literature often focuses on these health disparities, but gaps exist when considering how remote, rural environments can affect health promotion towards Native American communities. Thus, this narrative review will examine interventions aimed at reaching rural Native Americans for health promotion.

## **Methodology**

The criteria used to search for articles were credible studies published in reputable journals, focusing on Native American health. Firstly, Google Scholar was utilized for finding articles. The keyword first used was “Native American Intervention,” which yielded 2,900,000

results. Then, the term “Rural Native American Intervention” yielded 853,000 results. To be more specific, the term next searched was “Rural Native American Intervention Health” with 1,150,000 results. Finally, the term “Rural Native American Health Promotion” provided 839,000 results.

During the search, most studies were aimed to be selected if they were published after 2010. However, to ensure that a wide variety of health promotion techniques were included, some studies published from 2004 to 2009 were accepted. After they were found, articles with abstracts containing relevant information were read through and summarized to check for applicability of content. A total of 12 articles were chosen for the final review. Lastly, the articles were outlined and organized by themes relevant to Native American health and promotion in rural communities.

### **Key Health Disparities in Native American Communities**

Firstly, Native American communities tend to have higher rates of chronic disease, such as type 2 diabetes and cardiovascular disease, compared to other groups in the United States. According to a study titled “Sociodemographic and Psychosocial Factors Associated With Diet Quality in 6 Rural Native American Communities,” these health disparities have been associated with the removal of Native Americans from their tribal lands and the resulting lower socioeconomic status of many groups in the years since (Estradé et al., 2021).

In this instance, researchers surveyed participants from six Native American communities to assess their dietary habits, sociodemographic characteristics, and psychosocial characteristics. Better diet quality, as measured by adherence to dietary guidelines, was associated with income, education, and access to healthy food options, in addition to associations with psychosocial factors such as social support and food-related cultural beliefs. Since these sociodemographic

and psychosocial factors appear to highly impact the health of these individuals, the researchers recommend that interventions aimed at improving diet quality among Native American communities focus not only on accessible healthy food options but also on addressing social and cultural factors that may impact dietary habits. Ultimately, they conclude that there exists a need for culturally sensitive interventions that address a range of factors to improve diet quality and promote overall health in these populations (Estradé et al., 2021).

In another case, children in Native American communities often face poverty and health disparities, with contributing factors including historical trauma, lack of access to healthcare, and social determinants of health such as poverty, unemployment, and inadequate housing (Sarche & Spicer, 2008). From their research, Native American communities, compared to other groups, tend to have higher rates of diabetes, chronic liver disease, and deaths due to tuberculosis, suicide, heart disease, and more. Many communities also exhibit mental health disparities, including high rates of depression, posttraumatic stress disorder, alcohol dependence, and suicide rates (Sarche & Spicer, 2008). Understanding these key health disparities faced by Native American communities emphasizes a need for health promotion for this population.

### **Building Trust Through Culturally-Relevant Research Methods**

In order for health promotion to reach Native American communities to help bridge the gap with these disparities, many researchers have noted the importance of culturally-sensitive interventions. For instance, the article referenced previously by Sarche and Spicer underscores challenges in bringing health interventions to these communities, emphasizing the lack of funding for existing health services and gaps in literature focused around Native American children. However, as a way to move forward, the authors discuss the cultural strengths and resilience of Native communities to highlight future health interventions, including extended

family support and growth-fostering parent-child relationships. Finally, the article suggests specific strategies for addressing these disparities, including investing in early childhood education, promoting economic development, and supporting cultural revitalization efforts, illustrating the importance of involving Native communities in the development and implementation of future policies and programs (Sarche & Spicer, 2008).

Because of the impact of historical trauma on the mental health of Native Americans, traditional Western approaches to mental health care are often insufficient and inadequate to address mental health issues experienced by this population. With this in mind, researchers helped conduct a series of studies to take note of effective therapeutic approaches (Gone, 2009). This took place in a substance abuse treatment center on a reservation, with the researchers ensuring that all staff were either Native American or selected by community members to build trust with participants of the study. The researchers also made sure to receive community consent to conduct the study, which further helps to build trust. The results of the study indicated ways to bridge the gap between evidence-based treatments from controlled trial settings and culturally sensitive therapies that incorporate techniques outside of the cultural mainstream. This allowed researchers to arrive at the conclusion that community partnerships are crucial in alleviating intergenerational trauma in Native American communities (Gone, 2009).

Additionally, when considering the cultural beliefs of Native Americans, researchers have noted how many communities view the body as not only a physical entity but also a site of cultural meaning, social interaction, and historical and political representation (Walters et al., 2011). Researchers have learned that the study of the body from the lens of Native American communities can reveal complex intersections of culture, identity, and power, and it can help to understand how historical trauma and oppression are transmitted across generations. They

illustrate this with examples from Native American communities, drawing attention to how health disparities and negative health outcomes are linked to a long history of colonization, assimilation, and marginalization. Ultimately, understanding these views on the relationship between the body and history is crucial for developing effective culturally-relevant interventions that address health inequities and promote healing in Native American communities (Walters et al., 2011).

More specifically, since many Western approaches to health promotion have not been effective in addressing the health disparities experienced by Native Hawaiian and Pacific Islander (NHPI) communities, researchers cited examples of culturally responsive health promotion programs, such as the use of hula dance to promote physical activity and the incorporation of traditional foods into nutrition programs (Kaholokula et al., 2018). They also discuss the importance of community engagement and participation in the development and implementation of health promotion programs. All in all, they conclude that culturally responsive approaches can lead to more effective health promotion interventions and thus, better health outcomes for NHPI communities (Kaholokula et al., 2018).

Furthermore, another study highlights the importance of culturally-relevant interventions that are developed in collaboration with community members to ensure respect for and honor of traditional knowledge and practices (Walters et al., 2018). The article notes some challenges of using mainstream health promotion models in these communities because existing models may not take into account cultural values and beliefs. On the other hand, the researchers also give examples of successful culturally grounded health interventions, such as using traditional foods and activities to promote healthy eating and physical activity. In essence, they highlight the importance of incorporating community voices into the implementation of interventions and

provide strategies for developing interventions that are respectful, relevant, and effective (Walters et al., 2018).

### **A Solution: Community-Based Participatory Research**

As hinted at in the previous studies, many approaches to health promotion and intervention in Native American communities often include community involvement to ensure respect of traditional customs. This ties into the concept of community-based participatory research (CBPR), which is defined as “focusing on social, structural, and physical environmental inequities through active involvement of community members, organizational representatives, and researchers in all aspects of the research process” (Holkup et al., 2004). Since community members are involved at all stages of the project, CBPR is considered a culturally sensitive approach to research and intervention in many communities, including those of Native Americans. The history of exploitative and culturally-insensitive practices Native American communities have endured highlights the critical need of taking a culturally sensitive approach in current research and interventions (Holkup et al., 2004). More specifically, utilizing CBPR for the co-production of knowledge and sensible interventions by researchers and community members must become a new standard.

Researchers and Native American community members worked closely together to develop and implement an intervention to improve diabetes self-management (Holkup et al., 2004). The resulting gains in trust led to a more culturally-relevant intervention and increased ownership and empowerment among community members. At the same time, some challenges and limitations can come up in this type of thorough investigation. One challenge is that plans often change as input is gained from the community, which can be solved by acknowledging the need for researchers to be flexible and make sure to obtain informed consent from participants

after any changes. Secondly, researchers will need to be comfortable accepting opinions from many voices, so as a result, the team will have to share responsibilities and credits for success with the community members involved. Thirdly, ethical implications in CBPR projects can include difficulty maintaining confidentiality with individuals acting as both research collaborators and community members, so having upfront conversations about the meaning of confidentiality is critical. Finally, working with a diversity of cultures often has an adjustment period, which can create concerns about the time commitment of CBPR and may intimidate community members who are hesitant to accept change. Thus, researchers being culturally-sensitive and acknowledging the time put in by all members of the team and community can help mitigate these difficulties. Ultimately, by including the community as partners in the research project, CBPR has the potential to address health disparities in many marginalized groups (Holkup et al., 2004).

Consistent with what has been previously mentioned, researchers have dug deeper into specific issues in the application of CPBR to vulnerable populations, questioning how to define a community's consent to participate in a research project and how to determine the level of involvement of a community partner (Wallerstein & Duran, 2006). Although there is not one definite answer to these questions, the authors conclude that community leadership processes should be representative of local opinions. For example, when conducting research in the Navajo Nation, researchers must receive approval from the Navajo Nation Institutional Review Board (NNIRB) and local chapters, in addition to following other standardized procedures such as submitting all data to the NNIRB for approval before publishing. The authors also discuss the role of culture and privilege in CBPR, which requires researchers to self-reflect on their power and uplift underrepresented voices to ensure an effective health intervention. Lastly, the authors

explained how CBPR can benefit both scientific research and also the experiences of the communities that participate. They then gave advice for improving CBPR practices, which included involving university students from marginalized communities in research, creating community partnerships at a university-level, and rewarding faculty and staff who demonstrate community engagement. Overall, the article highlights the importance of communication and partnerships with communities in addressing health disparities and promoting health equity (Wallerstein & Duran, 2006).

As an additional illustration of CBPR, researchers conducted a study consisting of community education to prevent lead poisoning in Native American children living in rural areas (Kegler & Malcoe, 2004). In this form of CBPR, they used a lay health advisor (LHA) intervention, in which trained community members served as advisors throughout the research project and provided education on lead poisoning prevention to families with young children. The results show that the LHA intervention was effective in increasing knowledge and awareness of lead poisoning prevention, as well as improving home safety practices among the families who participated. This provides evidence for the effectiveness of using a community-based approach in preventing lead poisoning among rural Native American children and emphasizes the importance of involving community members in the development and implementation of health interventions (Kegler & Malcoe, 2004).

### **A Step Further: Ethical Considerations in Human Subjects Research**

Although CBPR has the potential to help many underserved communities, many researchers argue that their responsibilities do not end with the final step of their project. The article titled “Fulfilling Ethical Responsibility: Moving Beyond the Minimal Standards of Protecting Human Subjects from Research Harm” discusses the ethical responsibilities of

researchers when working with human subjects in community partnerships (Hébert et al., 2015). The authors argue that while the current ethical guidelines protect human subjects from harm, researchers should go beyond these minimal standards to ensure that they are fulfilling their ethical responsibility to the communities they serve. More specifically, they recommend involving community partners in actively making informed decisions about the direction of the research to avoid what they call “sins of omission,” which is when researchers avoid solving important problems that impact the community in favor of their own research interests. The framework that the authors propose instead involves four key elements. Firstly, they recommend consulting a diverse group of community members to determine issues that are relevant to the wider group, similar to previous literature on CBPR. Secondly, they recommend conducting research that is collaborative with both new and existing community partners, which draws on some knowledge from existing CBPR articles. Thirdly, however, they also emphasize that community members should be able to regularly evaluate the project. Finally, they recommend providing ongoing support and capacity-building for the community. The article highlights the importance of engaging community members as partners in the research process and the need for researchers to be accountable to the community throughout the research project. Essentially, the authors conclude that while CBPR is a valuable research method, these types of projects need to positively impact the wider community to ensure that research is conducted in an ethical and responsible manner (Hébert et al., 2015).

Additionally, a case study was conducted on the development and implementation of a human subjects protection training program for non-academic members of research teams (Kue et al., 2017). In the study, community health workers were involved in a project focused on cervical cancer screening among Cambodian and Lao immigrant women. Since many of these

community partners had little research experience and may not have been proficient in English, the authors describe the need for culturally-relevant human subjects protection training that addresses the unique cultural and linguistic needs of diverse communities. As such, they adapted a training program consisting of seven modules that covered topics such as informed consent, confidentiality, reporting requirements, and the protection of vulnerable populations using scenarios relevant to Cambodian and Lao cultures. The article discusses the positive outcomes of the training program, including improved knowledge and understanding of human subjects protection principles among the community health workers and enhanced trust between the research team and the community. The authors conclude that culturally relevant human subjects protection training is essential for ensuring the ethical conduct of research in diverse communities (Kue et al., 2017). In essence, while CBPR is an incredibly valuable tool for research, ensuring that projects are still conducted ethically is of utmost importance to ensure that all members of vulnerable communities are protected.

### **Conclusion**

As mentioned initially, Native Americans living in rural areas face various health disparities that can impact their quality of life. Consequently, existing literature has explored different approaches to health promotion in these communities. Keeping in mind the complex history of colonization and oppression Native American communities have endured, common themes in existing literature include health promotion interventions targeted that take into account, respect, and honor the cultural norms and values of these groups. Utilizing community-based participatory research to create culturally tailored interventions is an effective way to reach rural Native Americans for health promotion, but it is important to keep in mind the ethics of involving community members in human subjects training in order to protect vulnerable

groups. Researchers have also been encouraged to ensure that the benefits of the research are shared equitably, such as through disseminating findings in a manner accessible to the community being studied.

In reference to the main question of this narrative review, the articles summarized in this paper contribute towards knowledge of developing effective health promotions for rural Native American communities. After this review of articles, areas for further research include focusing on the differences between interventions in urban versus rural Native American communities to ascertain that the appropriate approaches to health promotion are being taken based on the demographics of the community. All in all, continuing to employ community-based participatory research to create applicable health interventions holds promise in addressing health disparities in rural Native American communities.