




Urban American Indian Experiences: Living With Type 2 Diabetes Mellitus


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Abstract

This qualitative interpretive study aimed to describe the experiences of 13 American Indians living in urban settings and their use of traditional healing and biomedical health services for type 2 diabetes. Urban American Indian adults living in the United States who used traditional healing and biomedical health services for type 2 diabetes were recruited for the study through purposive sampling, including snowball sampling. Thirteen participants completed semi-structured interviews. Participants reported positive experiences and barriers to traditional healing and Western biomedical services. They also discussed feelings of disorientation when diagnosed at a young age with type 2 diabetes but self-empowerment as an adult. Participants felt disconnected from their tribal community and identified inaccessibility and lack of communication as barriers to using traditional healing practices. Participants noted access and convenience to biomedicine as a reason to use it and the services provided within the system. They also identified barriers to biomedicine, such as short consultation time, costs, and lack of rapport or communication. Implications for positive social change include improving awareness and understanding of healthcare providers and educators regarding urban American Indian populations' health needs and being able to implement better-informed health programs for them.

Keywords: *American Indian, biomedicine, diabetes mellitus, health education, health promotion, Native American, traditional healing, traditional medicine, Urban American Indian, Alaska Native, Indigenous, qualitative study, Western medicine.*

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Introduction

According to the U.S. Department of Health and Human Services Office of Minority Health (2021), American Indians and Alaska Natives (AIs/ANs) are almost three times more likely to have diabetes mellitus than non-

Hispanic whites. AI/AN men 18 years or older had a higher prevalence of diagnosed diabetes (14.5%) than non-Hispanic black (12.1%), Hispanic (11.8%), non-Hispanic Asian (9.5%), and non-Hispanic white (7.4%) men (Centers for Disease Control and Prevention [CDC], 2022a). AI/AN women have the highest prevalence of diagnosed diabetes (14.7%) compared to the general United States adult population and other racial and ethnic groups (CDC, n.d.a). The most common form of this disease is type 2 diabetes. Food insecurity, poor dietary patterns, and lack of exercise are known health risks to developing type 2 diabetes mellitus (CDC, n.d.c). A nutritional change from fresh, mostly healthy traditional foods to predominantly processed, fat- and sugar-energy-nutrient foods has contributed to the increase in diabetes in adults and children (DeBruyn et al., 2020; Keith et al., 2018; Love et al., 2019).

In the AI/AN population, multiple health issues are found in conjunction with type 2 diabetes, such as kidney failure, cardiovascular disease, arthritis, and cancer, complicating healthcare treatment (Centers for Medicare & Medicaid Services [CMMS], 2018; Nahian & Jouk, 2022). There is a higher rate of comorbidities and disabilities in AI/AN populations than in other ethnic groups (CDC, n.d.a; Esposito & Kahn-John, 2020; Urban Indian Health Institute [UIHI], 2018). Older AI/AN adults tend to have more than the typical one to two comorbidities, creating more complex health needs for the population (CMMS, 2018; Esposito & Kahn-John, 2020; UIHI, 2018).

Timely diagnosis and self-management of type 2 diabetes are essential for effective long-term disease management. Aspects of self-management include healthful nutrition, physical activity, medication, monitoring of blood glucose levels, and foot care (CMMS, 2018). Diabetes self-management education must be ongoing, and support is necessary for an individual to continue implementing skills, education, and behavior (Beck et al., 2017; Goins et al., 2020). Integrating cultural knowledge into interventions produces better outcomes for adult populations, including type 2 diabetes interventions (DeBruyn et al., 2020; Isaac et al., 2018; Thompson et al., 2015). One key component in a sociocultural approach is to integrate social and cultural contexts, such as traditional foods and exercise (CDC, n.d.b; DeBruyn et al., 2020; Thompson et al., 2015; Esposito & Kahn-John, 2020). Making culturally appropriate healthcare available to AIs/ANs can reduce disease rates (Esposito & Kahn-John, 2020; Knaster et al., 2015). In addition, disparities and barriers may impede diabetes self-management for AIs/ANs in general, due to hopelessness, not wanting to burden the family, lack of access and knowledge about healthy foods, and location (CMMS, 2018).

Compared to other population groups, AIs/ANs are more likely to be diagnosed with type 2 diabetes (CDC, n.d.a; CMMS, 2018; DeBruyn et al., 2020). Living in an urban setting does not necessarily change the diagnosis of the disease, though there may be more opportunities, including access to general biomedical healthcare. Biomedicine refers to

a system in which medical doctors and other healthcare professionals (such as nurses, pharmacists, and therapists) treat symptoms and diseases using drugs, radiation, or surgery. Also called allopathic medicine, conventional medicine, mainstream medicine, orthodox medicine, and Western medicine (National Cancer Institute, n.d., para 1).

Depending on the status of tribal affiliation and whether the tribe is federally recognized, an urban AI/AN may or may not have health insurance through the Indian Health Service (IHS) (Esposito & Kahn-John, 2020; Rutman et al., 2016). The IHS, part of the Department of Health and Human Services, provides health services to AIs/ANs from federally recognized tribes in an effort to create healthier communities by providing healthcare systems that address culturally appropriate practices and partnerships (IHS, n.d). The IHS also provides services for AIs/ANs who do not live on or near a reservation, through their program of Urban Indian Organizations (IHS, n.d.). For some urban AIs/ANs, the need to constantly go back and forth between cities and reservations for healthcare through IHS clinics can make health services less accessible (Esposito & Kahn-John, 2020; Knaster et al., 2015).

Most researchers have conducted studies in AI/AN communities on reservations with different issues surrounding health access and the use of traditional healing and biomedical health services (CMMS, 2018; Dennis & Momper, 2016; Jacobs-Wingo et al., 2016; Redvers & Blondin, 2020). Although the 2020 U.S. Census shows 87% of AIs/ANs, alone or in combination population, live in urban areas (IHS, n.d.; U.S. Department of Health and Human Services Office of Minority Health, 2021), few studies have been carried out with these urban populations (Hartman & Gone, 2012; James et al., 2018; Pollak, 2017; Redvers & Blondin, 2020). Urban AIs/ANs are more widely dispersed in urban areas than those living on or near reservations and may not qualify to use health services offered by IHS or by the tribe (Nahian & Jouk, 2022; UIHI, 2018). Furthermore, many individuals may still associate being AI/AN with using indigenous traditional healing to keep their connection to their culture (Hartmann et al., 2014; James et al., 2018). Indigenous traditional healing comprises “therapeutic processes involved in the application of sacred, mysterious, and spiritually informed AI/Indigenous cultural knowledge systems and healing practices that are passed down from one generation to the next” (Esposito & Kahn-John, 2020, p. 838). At the same time, these urban populations use biomedicine, because there is more access to health services in the urban setting (Moghaddam et al., 2015; Nahian & Jouk, 2022). Biomedical healthcare personnel are less likely to know about this population's healing traditions, culture, or preferences (Nahian & Jouk, 2022). However, integrating the use of traditional healing practices with biomedical healthcare is fundamental to AI/AN health promotion (Auger et al., 2016; CMMS, 2018; Dennis & Momper, 2016; Esposito & Kahn-John, 2020; Moghaddam et al., 2015; Rutman, et al., 2016).

Identifying aspects of culture that support living a healthy lifestyle, such as encouraging eating traditional foods, can contribute to type 2 diabetes prevention and successful management of the disease (Debruyne et al., 2020). Satterfield et al. (2016) noted that traditional food activities attracted AIs/ANs to be more involved in growing, harvesting, and preparing food and participating more actively in dancing and playing games. Turning toward culture may contribute to a more balanced life for urban AIs/ANs (Debruyne et al., 2020). Including services that focus on mind, body, and spirit would bring balance to the whole person (Moghaddam et al., 2015). When biomedical healthcare providers integrate traditional healing practices into their practice, the result is better outcomes for their indigenous patients (Carrie et al., 2015; Langås-Larsen et al., 2017). Using both traditional health practices and biomedicine may help AIs/ANs have more positive health outcomes in managing type 2 diabetes and integrating diabetes education into daily life.

Though there is a high prevalence of type 2 diabetes among AIs/ANs, the research literature does not explicitly address the perspectives or experiences of the population regarding the combined use of traditional health practices and biomedical healthcare services. Possible reasons for not using biomedical healthcare services are differing cultural views regarding health, as well as distrust (Auger et al., 2016; Esposito & Kahn-John, 2020; Moghaddam et al., 2015). Limited access to healthcare services for chronic diseases including type 2 diabetes in the urban AI population continues to be a challenge (James et al., 2018). Furthermore, urban AIs/ANs are more likely not to be recognized in local and national health assessments, since they are oftentimes identified as other (James et al., 2018). Due to a lack of understanding in the scientific community, there needs to be adequate research conducted in urban AI/AN populations (Dennis & Momper, 2016; James et al., 2018; Yuan et al., 2014).

Purpose of the Study and Research Questions

The purpose of this study was to describe and explore personal, interpersonal, and community influences on traditional healing and biomedical health services to help health educators develop more culturally competent diabetes education programs for the urban AI/AN community in the United States. The following research questions guided this qualitative study:

RQ1. What are the experiences of urban AIs/ANs living in metropolitan areas in the United States when using traditional healing and biomedical services to address type 2 diabetes?

RQ2. How do urban AIs/ANs living in metropolitan areas in the United States describe their interpersonal experiences when seeking type 2 diabetes education or management?

Methods

Participants

A purposive sample of 13 participants was selected for this qualitative interpretive study. The inclusion criteria were based on the perspective of urban AIs/ANs who identify as AI/AN through family or tribal affiliation, are 18 years or older, have been diagnosed with type 2 diabetes, have used any aspect of traditional medicine or healing and biomedicine together, and who willingly agreed to be interviewed and recorded.

The participants in the study were urban American Indians living in metropolitan areas in the United States who have used traditional healing and biomedicine to manage type 2 diabetes. We used snowball sampling to identify them, starting by identifying a few individuals who were information-rich about the topic and could provide other relevant contacts. The participants were recruited with the help of different personal contacts and organizations in metropolitan areas in the United States, through their websites and through social media pages on Facebook. We collected data through individual phone interviews via Zoom with those who agreed to participate. Before the interview, each possible participant was asked questions to confirm participation eligibility based on the inclusion criteria. Fourteen individuals completed the eligibility questionnaire, but only 13 were eligible to participate. The participants also completed a short demographic survey regarding age, gender, ethnicity, and education level.

The number of interviews in a study is based on funding and time limitations, since each must be recorded, transcribed, and analyzed (Malterud et al., 2021; Vasileiou et al., 2018). Information power is based on the content of the input and sample specificity, rather than on the number of interviews (Malterud et al., 2021). In this study, the purposive sampling assured sample specificity and provided new knowledge in its analysis. Based on the time limitations for the study, the wide variance in possible sample size, the availability of participants, and information power, we concluded study recruitment efforts after 13 participants were interviewed and provided enough new knowledge to achieve the point of the study.

Instrumentation

We developed a short eligibility questionnaire, aligned with the inclusion criteria. A sociodemographic questionnaire was also developed to provide information describing the study participants. We also developed an interview guide aligned with the research questions to provide structure and focus during the interviews (see Appendix A for a list of interview questions). The questions in the interview guide are all semi-structured, open-ended questions, including follow-up questions for clarification. We used semi-structured questions to organize and guide the interview but also allowed for follow-up questions tailored to the interviewee's responses. The predetermined questions were asked to all participants, but the order and wording differed according to the conversation pattern.

Data Collection

Upon approval from the university's Institutional Review Board (approval number 08-19-21-0075320), the directors of the American Indian Health Service of Chicago and the American Indian Center were contacted to get permission to post flyers on social media accounts about the study and to provide information according to their policies and needs. Participants were recruited through convenience at the beginning of the study and

through snowball sampling once initial contact was made with the first participants. These centers were chosen based on both facilities' importance in the urban AI/AN community.

We determined eligibility to participate using an email questionnaire. After participant eligibility was determined, we delivered the consent terms to the participants to read and sign digitally through email. We interviewed on the phone via Zoom, and each interview took approximately 30 minutes. Potential participants could ask any questions about the study. Once the participants gave their consent, we set an appointment for the interview and sent a reminder a day before the appointment, through text or email, depending on the preference of the individual. Before starting the interview, we mentioned the importance of answering truthfully. We provided a member check after transcribing the interview, by emailing the participant a copy of the transcript and asking them to confirm their acceptance of it in a return email. Participants were not identified in the information reporting, and codes were assigned to responses and notes. Each participant was assigned an identifier (P1, P2, P3, and so forth) throughout the interview, transcription, and analysis process.

Data Analysis

This study involved coding, identifying patterns and themes in the participants' answers to the interview questions, using the coding software Dedoose. Processes during the collection and analysis to provide meaning included writing memos during collection and analysis, coding data, writing to analyze, developing ideas and concepts, and connecting the analysis to theory and literature. Connections were made between the data and the questions asked during the interviews. We categorized the codes into three main emergent themes. Table 1 presents the research questions' alignment with the emergent themes.

Table 1. *Emergent Themes Aligned With Research Questions*

Research questions	Emergent themes
<i>RQ1:</i> What are the experiences of urban AIs/ANs living in metropolitan areas in the United States when using traditional healing and biomedical services to address type 2 diabetes?	Experiences and barriers when using traditional healing Experiences and barriers when using biomedical health services
<i>RQ2:</i> How do urban AIs/ANs living in metropolitan areas in the United States describe their interpersonal experiences when seeking type 2 diabetes education or management?	Family and community influences when seeking type 2 diabetes education and management

Results

Out of 13 participants, one participant was male (8%) and 12 were female (92%). One participant lived in the Chicago area known specifically as Chicagoland. Seven (54%) participants lived in New York City, four (31%) lived in Houston, Texas, and one participant lived in an urban environment in California. The participants represented different tribes: Natick Algonquin and Narragansett (1), Apalachee (1), Apache (1), and Cherokee Appalachian (10). All participants had used both traditional healing and biomedicine at some point to address their type 2 diabetes. Nine (69%) participants were between the ages of 20 and 29; three (23%) participants were between the ages of 30-39; and one participant was over 65. One had a doctorate, seven (54%) had a bachelor's degree, four (30%) had some college, and one was a high school graduate. Three (23%) were married and 10 (77%) were single. Table 2 displays the information from the demographic questionnaire.

Table 2. *Participants' Demographics and Tribes*

Participant	Gender	Age Range	Education	Tribe
P1	Male	65 and over	Doctorate	Natick Algonquin & Narragansett
P2	Female	30-39	Bachelor's	Apalachee
P3	Female	20-29	Some college	Apache
P4	Female	30-39	Bachelor's	Appalachian
P5	Female	30-39	Bachelor's	Appalachian
P6	Female	20-29	Bachelor's	Appalachian
P7	Female	20-29	Some college	Appalachian
P8	Female	20-29	Some college	Appalachian
P9	Female	20-29	Bachelor's	Appalachian
P10	Female	20-29	High school graduate	Appalachian
P11	Female	20-29	Some college	Appalachian
P12	Female	20-29	Bachelor's	Appalachian
P13	Female	20-29	Bachelor's	Appalachian

We organized the findings into three main themes. These themes emerged from the coding and grouping of codes into categories.

Theme 1: Experiences and Barriers When Using Traditional Healing

Traditional healing practices vary depending on the tribal nations and include specialized ceremonies that could be short or last several days (Esposito & Kahn-John, 2020). In this study, participants identified sweat lodge ceremonies, herbal remedies, other prayers, and dancing rituals. Most participants had experiences with traditional healing at a younger age, which family influenced. Three (23%) participants used traditional healing when they were older. Positive experiences were shared about traditional healing and healers, including communication and attentiveness to their needs. As P3 stated, regarding interactions with traditional healers, "I feel like I can use it when it is right for me, and some are not. But I use what is right for me. [It] has to do mainly with communicating, and your own well-being. Meditation, talking to people." P6 related her experience of going to a traditional healer with her dad at first; she remembered that it included "the holistic approach, considering some beliefs, some interactions and spiritual orientation. Like it was something that was more of a spiritual thing, you get some spiritual awakening, and you are made aware about some cultural practices that are done." P1 conveyed his experiences with traditional healing and sweat lodge ceremonies:

I was going periodically to sweat lodges and getting to seeing the healing effects of some of the medicines, such as bear grease. The bear is considered the healer. And his fat is used because it contains roots, leaves, stems, berries, everything. And that resides in the fat. So, when you put it on you, you're putting on a medicine, a multilevel medicine to work with. And the first time I did it, it helped with my arthritis. But, you know, the sweat lodge itself has so many healing powers, so it is not just you go in there and you sweat. It's more than that. It's a spiritual experience. And it reconnects you with the with the creation itself, which we have divorced ourselves from in our world.

This same participant went on to explain another aspect of traditional healing:

I also use an interesting thing about the Sundance. I was not supposed to take any of my meds. And my wife, she questioned the medicine man very carefully about this whole idea of me fasting and having no food or water, what was going to happen, because I also have other ailments that require medication. And he [traditional healer] said, "Everything will be taken care of, I will be watching everybody." While dancing, one of the times I started feeling, you could tell that I was starting to wane. And he gave me a liquor stick, licorice root, and I chewed on it. And later on, I felt fine, almost immediately.

The participants also identified other experiences that they described as barriers to traditional healing, such as lack of communication and inaccessibility. P7 explained that she saw a traditional healer for only three months but stopped after she had challenges meeting up with the healer. P11 stated that the traditional healer came on Fridays, and many times it was a group effort from her family to attend the meetings. At the same time, she also had to go to biomedical appointments at the hospital. P2 related her experiences with a traditional healer:

We would go to a certain traditional doctor. Then after that we would have some sort of prayers. For me it was kind of weird, because I [felt] it wasn't all that traditional. So, it took me a lot of adjustment to what people are saying and what is happening. And remember at that time I was young too; back then was a challenge, because I remember we had to travel to a far place to get to the traditional healer.

P12 stated, "The traditional healer, I kind of felt like she was not available every time. I'll call and be on hold so many times, so I actually give up." P8 further elucidated about her experience, "Traditional healing at times doesn't have to work automatically. And also, it is quite hard to access." P4 noted, "The traditional healers are so much bureaucratic. There are so many procedures to follow. They are not straightforward, some of them." P5 explained how traditional healers may be talking with other family members who are not at the appointment, saying, "Traditional healers at times will not understand what is going on, like they're communicating with people who are not there at times. You will not like understand the language at times. So, it's a challenge." P6 commented, "I think the traditional healer doesn't give you so much detail. Like you even don't get introduced to what you're going to be undergoing." P9 elucidated, about not having immediate access to traditional healers,

You could just go there and feel like you went at the wrong time. So, I feel like the availability and the accessibility, and the convenience is a bit different also in terms of the herbs, and things, this traditional medicine could harm you more than do you good.

P10 described her lack of understanding and her experience with the traditional healer, "was such a very bad experience. Because now, when we are there I'm supposed to take some medicine from him."

Theme 2: Experiences and Barriers When Using Biomedical Health Services

All participants shared their experiences using biomedical health services for their type 2 diabetes. The experiences revolved around communication and accessibility. Biomedical health services vary across tribes and regions based on access and connection to cultural practices (James et al., 2018). P3 described her experience with her healthcare providers and services: "I feel like once I am contacting them, it feels like I am able to communicate with them on how I feel. I am able to like get help." Additionally, P3 mentioned her medical health providers would take note of traditional medicines: "They ask you what have you been taking and tell them things that are related to traditional." P2 elaborated, about learning to care for herself, "I found very reliable doctors. I've also managed to take care of myself to learn the processes and procedures given. And taking the right medication at the right time." P4 explained her thoughts about biomedicine, saying, "Scientific medicine is mostly effective and it's quick, if you want to handle pain, it's very quick. And another

thing is that I feel like scientific medicine should be used in the first, in the early intervention.” P10 expanded on her diagnosis stage as a child, “During the diagnosis stage, there was someone like explaining to you that this, and this is what is happening, you need to take care of yourself, your life is gonna be a bit different from the kids.” P12 related her experience with her doctor:

I feel like the doctor that I've been seeing currently I have seen him for a while now. So, I feel he's so qualified. And he has connected me to so many resources that I need, mental health resources in terms of, of support groups, and from the support groups, I've made friends.

Five participants commented about biomedical healthcare being convenient and accessible while living in an urban environment. P6 noted, “I feel like Western medicine is more convenient. It's more accessible.” P7 confirmed a similar experience with biomedicine, saying, “I feel like one is more convenient; it's more accessible.”

Ten participants commented on their relationship with their biomedical providers. For instance, P8 commented that she found her medical doctors were reliable and knowledgeable about the medications she needed to take; she added, “I feel safe when there was some medicine, because this is someone I'm seeing very often. I feel it's more accessible. I feel it's affordable. And it's convenient to like, be near hospital for us.” P13 explained that her healthcare provider advised her to receive nutritional counseling. P5 noted her biomedical doctors encouraged her to be diligent about self-care regarding her type 2 diabetes, remembering to eat healthy food and to take medication when prescribed. P5 commented on her interactions with biomedical health personnel, “The time it takes, the convenience, and it's not so much to have to make a process in having like, care from a hospital setup.” P9 explained, “For the case of the doctors, you don't need to prepare yourself in terms of when to go like, actually just go tomorrow, without even having to book an appointment later on in the day or earlier on the day.” P9 also added, “This is California, so that's why I'm more inclined to use that on those hospitals compared to any other services.”

Two participants mentioned barriers they encounter when seeking biomedical healthcare, associated with expenses and the limited consultation time the provider had available to establish an open conversation with them. P13 revealed that biomedicine is expensive but efficient with monitoring her condition, noting, “I think it's [biomedicine] very expensive, but honestly, it's supposed to make me feel better, and these frequent monitoring[s], honestly, I will just choose that.” P1 further elucidated on experiences with biomedicine,

You go in; you're only allowed so much time. And that's the time it's not really spending time with you. And that always bothered me, because I try to be as informative as I can with the limited amount of time I have in the doctor's office, because they only want to hear certain things.

Lack of communication and rapport with their healthcare providers is also a critical barrier identified by two of the participants. P1 indicated, “And there's always the fear if you don't follow what they say they're not going to serve you anymore.” Additionally, there was mention of not letting biomedical healthcare workers know traditional healing was being used at the same time as biomedicine. P1 explained, regarding not telling his healthcare providers he used traditional medicine and healing, “When I do healing, that's not contemporary. I don't tell them because you will not hear any encouragement. I keep those things to myself.”

Theme 3: Family and Community Influences When Seeking Type 2 Diabetes Education and Management

Each participant was asked how family influenced use of traditional healing and biomedical health services. P8 detailed her experience when she was young and her family took her to a traditional healer, saying,

I think my parents were frustrated on the thought that I had been diagnosed with that [type 2 diabetes]. So, it wasn't something very easy to deal with. This is not something that they [my parents] had really anticipated. There was a time I was to take the medicinal herbs that are prescribed by a certain traditional healer, who happened to be a friend to my one of my uncles they were very bitter.

P3 indicated that she is influenced by both her Indigenous identity and her non-Indigenous identity when utilizing healing methods for type 2 diabetes, stating,

I am saying that the traditional method has been influenced by the fact that I am a part of the Apache community. And I feel like taking part in the traditional. This part is from my cultural community that uses the traditional medicine. My mom is White, so that is the reason why I use the bulk of it from the medical field.

P4 noted her preference for biomedicine when she said, "For me I'd say I have tried to access the traditional. Honestly, I don't really understand it because of the effect of living in a metropolitan area most of the time, I tend to be going to the hospital." P5 talked about her parents thinking traditionally and how she became more modern when she lived on her own, stating,

For me, to be honest, being a part of the Native American community, I feel like my parents are the ones who relate more ... they are inclined to that traditional thinking. Now, I feel like things have changed. Modern technology has influenced people's thinking. Initially, when I was diagnosed, I was taken to a hospital. When people in my family started finding out that I had this underlying condition, some now took upon themselves like advice more information on the traditional path of learning. So, I had to, like, undergo so many, like, journeys going back and forth.

P6 talked about the influence of her family when she was younger and how later moving to a city changed how she utilized biomedical services. She explained,

Yeah, he [Dad] is the one most of the time who would go with me to appointments [with a traditional healer]. But also, there was some aunts of mine who are involved on his side. So, it was a group of people. I didn't have like an influence on whether to go or not, like it wasn't up to me. I think when we moved to the city, it got even better and convenient for me to use just medicine and to attend the normal counseling sessions in the city.

P7 related her experience when she was young, when her family decided to use traditional healing services, saying, "Some friends of my parents recommended it [traditional healing] to him [Dad]. I don't know, I kind of feel like they felt like it wasn't something very consistent." P11 discussed the involvement of her extended family and using a traditional healer, commenting,

The traditional healer would come like on Fridays. I think for like an hour in a month, you will see him twice or once. So, basically, his availability depended on when and where he was. So, it took a long time. Many people around us were insisting that [these] traditional healing practices are really working.

P13 stated, "I have friends who are also in the medical health sector; they really encouraged me to take services from them." P12 was trying traditional healing, explaining, "Okay, for me, traditional healing, I don't have a lot of experience because it's something I was recently trying out. My family is more inclined today to use Western medicine. I grew up being taken to the hospital."

Discussion

All participants, who identified themselves as AI/AN descendant, living in urban areas, had used biomedicine consistently throughout their lives. However, traditional medicine and healing were used at certain times or stages in their lives. All participants were not expecting to be diagnosed with type 2 diabetes. One participant was diagnosed in his sixties, and one was diagnosed during pregnancy. Ten of them were diagnosed when they were under 18 and some of those were diagnosed between 11 to 15 years old. This compares with previous research that shows AI/AN youth are developing diabetes at a higher rate than other ethnic groups (CDC, n.d.a). As young people, they did not understand why they had type 2 diabetes or why they had to change their eating habits or take medicine. There were feelings of confusion, worry, fear, and nervousness. During adulthood, the participants found biomedical healthcare facilities, doctors, and other support services to address their diabetes. All participants explained the need to eat a healthy diet and maintain exercise schedules to keep their diabetes in control. The participants expressed this opinion whether they were using traditional healing, biomedicine, or both.

Integration Into Current Literature

The use of traditional healing varies across tribes and regions due to differing connections to cultural practices and tribes (James et al., 2018; Redvers & Blondin, 2020). Prior research has found that urban AIs/ANs may try to connect with their culture through traditional healing (Hartmann et al., 2014; James et al., 2018). Three participants thought it was important to continue using traditional healing alongside biomedicine while living in an urban environment. They felt that it helped with their treatment of type 2 diabetes and provided connections to their tribes. Although three participants made conscientious efforts to utilize traditional healing as adults, they all used biomedicine throughout their lives. Twelve participants utilized biomedical health predominantly for their diabetes as adults.

All participants lived in an urban area as an adult. Their attitudes changed with their ability to create relationships with their doctors and nurses as adults to learn to care for themselves while living with type 2 diabetes. Three participants agreed that their health could be managed better in the urban environment and access was easier. There were feelings of empowerment in seeking biomedical services for diabetes due to living in an urban area and the services being accessible. Ten participants felt that living in an urban area supported their feelings of independence. For two participants, being able to live independently and make their own decisions was self-empowering. Living near all types of services created a self-reliant capacity and attitude. Also, that other people around the participants were using biomedicine influenced them to do the same. Participants noted access and convenience to biomedicine as a reason to use it and the services provided within the system. This finding supports past research that urban AIs/ANs utilize modern medicine due to accessibility to the services (Moghaddam et al., 2015; UIHI, 2018).

All participants experienced a disconnection from their tribes and did not have a support group within their tribal community. Although since 2006 IHS has put in effort to improve services and connections with urban AI/AN populations, participants expressed limited knowledge of how to access these services. Healthcare professionals must educate AIs/ANs about these program services and how to apply for and access them. When AIs/ANs move out of the reservation areas, they may have less accessibility to the federally funded IHS clinics facilities, programs, and services, which results in limited healthcare access from IHS to the urban AI/AN population (Nahian & Jouk, 2022). Previous research also highlighted the importance of connection to culture and land and confirms that disconnection contributes to the changes in AIs/ANs' health (DeBruyn, 2020; Isaac et al., 2018). Multilevel and multicultural interventions, including ways to access services and the promotion of healthy diet and exercise, are needed for this population (DeBruyn, 2020; Jernigan et al., 2020; Lin et al., 2020; Nahian & Jouk, 2022).

The participants in this current study expressed that support groups within the biomedical system were accessible; however, these groups were not culturally focused. Previous research found a need for culturally centered psychosocial support regarding AI/AN cultures (Marsh et al., 2018; Nahian & Jouk, 2022; Rosas et al., 2016). Some participants were part of support groups or therapy/counseling that were part of their healthcare for diabetes. Several participants were entered into support groups immediately or a while after being diagnosed with type 2 diabetes. The participants described that support groups and therapy sessions helped them connect with others with diabetes. One participant noted that the need for therapy developed due to depression about her financial challenges for healthcare needs and trying to find people who could help care for her as an adult when needed. Another explained that her mental health was affected by the deterioration of her physical health, and it was essential to seek help through therapy or support groups. P6 shared how she valued her support group for diabetes, where participants shared their stories and struggles with diabetes. P9 explained how being diagnosed with type 2 diabetes disrupts self-image and that it is important to be a part of a support group that understands her and not rely only on the family. These examples are like previous research regarding the challenges of having type 2 diabetes and its effect on mental health, which can impede positive health outcomes (UIHI, 2018). However, none of the participants knew of any support groups addressing traditional healing for type 2 diabetes.

Ten of the participants commented on their relationship with their biomedical healthcare providers. In these interviews, ten participants used biomedicine predominantly for their type 2 diabetes and were influenced more by biomedical healthcare personnel. Most of them described positive interactions with their healthcare providers but also identified barriers related to biomedicine, such as short consultation time, costs, and lack of rapport or communication. Most also explained that their healthcare professionals did not inquire about their cultural traditions or background. Only one participant, P3, explained that her medical doctors would take note of the herbs and supplements she was taking when they asked about other medications. Previous research has found that urban AIs/ANs were not comfortable sharing aspects of their use of traditional healing (Redvers & Blondin, 2020; Rutman et al., 2016). Embracing diversity and multiculturalism improves the healthcare provider's interaction with patients and enhances the healthcare provider's overall image as a caring professional (Nahian & Jouk, 2022).

Interpersonal relationships with family and friends influence identity and socially acceptable norms (Sallis & Owen, 2015). For 10 participants, health decisions were made by family when they were first diagnosed with type 2 diabetes, since they all were diagnosed when they were young or still lived with family in their late teens, around 18 years old. The participants' families were active in finding healthcare for them. Each family was intricately involved in supporting them through their diabetes journey. The families went out of their way to provide health support for type 2 diabetes, using biomedicine and traditional healing. Both as children and adults, family support was essential to managing their diabetes. Past research indicates social support from family and community produces positive type 2 diabetes outcomes (Scarton & Groot, 2017).

Each family integrated traditional healing alongside biomedicine to different degrees or at different life stages. Using traditional medicine is a way to stay connected to the tribal community (Hartmann et al., 2014; James et al., 2018), and using biomedicine is due to access to the health services in the urban environment (Moghaddam et al., 2015). Early interactions with traditional healing were carried out predominantly by the parents or family members of these participants, who did not have in-depth interactions with the traditional healers. These participants were minors, and the family included both seeing traditional healers and using biomedicine for type 2 diabetes. As AI/AN adults living in urban settings, they also expressed some disconnection from their original tribes and their traditions. For adults, seeking traditional healing involves personal agency, preference, and purpose. Depending on personal preferences, family encouragement, level of acculturation, and accessibility of traditional healing and biomedicine, these participants chose to integrate both approaches or only biomedicine. Feelings of distrust may discourage open conversations with biomedical

healthcare professionals, preventing urban AI from openly disclosing their use of traditional healing practices while discussing their health with biomedical professionals.

Limitations

Although we opened the recruitment to the entire United States, many different experiences were missed in this study. The results of this study can only be described as the participants' experiences and cannot be generalized to other urban AIs/ANs. We determined eligibility using an initial questionnaire aligned with the purposive sampling inclusion criteria. However, the nature of the qualitative method, volunteer recruitment, and the small sample could also imply selection limitations, particularly because most participants identified as female and having a college education. Therefore, the participants' expressions do not represent the larger population of urban AIs/ANs. Though information power was reached with 13 participants, the study consisted of a purposive sample, for which the participants were chosen with inclusion criteria that lacked generalizability. It is the beginning of acknowledging that being an AI/AN in an urban environment is not one experience. That experience can look different for each location, whether a state or a city. The thick and descriptive language strengthened transferability, to provide a comparison with other contexts; however, the variables outside of race, gender, age, and geographical location could affect the overall outcome. Moreover, we acknowledge that a history of AI/ANs' mistrust of scientific research, based on numerous examples of unethical medical and scientific research, also challenged recruitment. Though the inclusion criteria and small sample challenge generalizability, the participants were able to tell their stories, encouraging them to share their cultural identity. The results of this study give voice to the experiences of the urban AIs/ANs who participated in it.

Implications for Theory and Practice

There is an opportunity for biomedicine providers to learn about different perspectives on health and disease through respectful collaboration with traditional healers and indigenous communities (Redvers & Blondin, 2020). Incorporating a tribe-specific culturally-based traditional healing curriculum is also recommended for healthcare professionals, including public health educators. An example of such a curriculum was implemented at the University of New Mexico, and it included learning directly from traditional healers and participation in healing practices (Kesler et al., 2015).

Since the United States is not made up of the same types of people, more studies need to be implemented to understand better how more than one mode of healing may be used for type 2 diabetes, including for urban AIs/ANs. Biomedical healthcare requires culturally appropriate interventions that recognize individual needs, considering race, culture and gender (Nahian & Jouk, 2022). Health professionals and educators must understand that cultural and traditional healing practices cannot be oversimplified or generalized. Culturally sensitive healthcare is more than formulas or prescriptions that provide one definitive answer (Nahian & Jouk, 2022; Stanley et al., 2020). The first step in promoting the conversation is to devote time to encouraging an open discussion aimed at affirming health professionals' intentions to improve understanding of their patient's cultural backgrounds. It is critical that individuals feel free to talk with their biomedical healthcare providers about their use of other healing systems. Esposito and Kahn-John (2020) recommend an informed and collaborative approach that allows patients, traditional healers, and healthcare professionals to discuss safe strategies. This may include recommendations to continue, stop, or postpone a ritual, consider safer approaches, or change treatment.

Education is essential for increased communication among traditional healers, healthcare professionals, and patients, in order to provide space for discussing other modes of healing that may help or hinder the healing process. Through open communication and understanding of the complexity of Indigenous health, health education can increase positive health outcomes (Goins et al., 2020; Carney et al., 2019). Lack of cultural

sensitivity, awareness, and competence negatively affects the quality of communication between patients and healthcare professionals, increases the risk of misdiagnosis, and undermines public trust (Nahian & Jouk, 2022). Collaborative approaches between Indigenous traditional healing and conventional biomedical practices require implementation of cultural programming, observance of mutuality and respect, clear and honest communication, and awareness of cultural differences as a unique challenge that must be collaboratively discussed (CMMS, 2018; Moorehead et al., 2015; Redvers & Blondin, 2020).

Conducting qualitative and quantitative studies in urban areas where AI/AN individuals do not have access to IHS services is critical, since most research is based on AIs/ANs who do have access to those services. The participants in this study did not have access to IHS services or connections to AI/AN organizations. Although IHS has funded and partnered with urban Indian organizations that incorporate traditional healing into their behavioral health components, more education is needed to improve awareness of, guidance on, and support for how to access these services (IHS, n.d.).

Acknowledging and incorporating AI/AN traditional healing and healers would provide a more comprehensive health system and make utilization thereof more accessible (Esposito & Kahn-John, 2020). The World Health Organization (2013, 2019) has studied the benefits of traditional healing and ways to integrate it into Western healthcare systems. For instance, past research has found that indigenous plants in the Americas have antidiabetic properties (Ferrier et al., 2018; Levy, 2019). It is essential that local-level AIs/ANs continue conducting research, collaborating with researchers, and finding studies that support Indigenous knowledge and wisdom about traditional healing and diabetes.

Conclusion

Each participant, at some time in their lives, had a connection with aspects of their tribes. They used traditional healing and Western biomedicine for their diabetes at different life stages. Many were diagnosed at a young age, under 18 years old, and some were diagnosed in their twenties or older. They all experienced using both types of healing and were concerned about receiving the best care they could access, and they had to travel to or look for access to traditional healing. Strengthening connections with urban AIs/ANs by providing health education, resources, and partnerships with urban organizations serving this population is fundamental (UIHI, 2018; Yuan et al., 2014). Data from this study provided insights into the urban American Indian experiences of using traditional healing and biomedicine for type 2 diabetes healthcare. This study allowed the participants to voice their experiences. Health professionals and educators cannot generalize about culturally sensitive interventions, and they need to inquire more about their patients' cultural perspectives and backgrounds. There is a need to increase trust, by reaffirming the healthcare professional's purposes of understanding, collaboration, and cultural sensitivity. This is the first step to starting the conversation.

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Appendix A: Interview Questions

- A. Tell me about your background and where you grew up.
- B. How does your identity influence your use of traditional healing and biomedical health services?
- C. How does living in a city influence your use of traditional healing addressing type 2 diabetes?
- D. How does living in a city influence your use of biomedical health services and treatments addressing type 2 diabetes?
- E. How does family influence your use of traditional healing and biomedical health services?
- F. Tell me about your experiences with traditional healers when seeking health advice for type 2 diabetes health.
- G. Tell me about your experiences with biomedical health personnel when seeking health advice for type 2 diabetes health issues.
- H. How do experiences differ when traditional healers and biomedical personnel provide prevention, detection, and treatment of type 2 diabetes health issues?
- I. How do personal interactions with traditional healers and biomedical personnel affect your use of their services?



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