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Content Analysis of Perceptions of Substance-Use Treatment Among American Indian People Who Have Used Opioids

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Abstract

Objectives: American Indian (AI) people are disproportionately impacted by opioid use disorder (OUD) and its associated consequences. However, there is a dearth of published research about substance-use treatment and its efficacy for AI people with OUD. People with OUD, especially those with a longer substance-use history, often have widely variable experiences in their access to and engagement in substance-use treatment. Furthermore, there is a paucity of literature on AI people's perceptions of their substance-use treatment experiences. This study seeks to fill this research gap.

Methods: Conventional content analysis was used to document perceptions of substance-use treatment among AI people who have used opioids ($N = 45$) as well as their suggestions for the improvement of treatment moving forward.

Results: Participants highlighted the importance of connection to nonjudgmental counselors and peers with lived experience, challenges of logistical barriers to treatment (e.g., cost, distances to facilities), the importance of intrinsic versus extrinsic motivation for recovery, and a preference for treatment as respite versus punishment. Participants felt substance-use treatment could be enhanced through the incorporation of Native-centric cultural programming, the integration of social services into substance-use treatment (e.g., housing and vocational training), provision of robust individual and group counseling options, and healing settings that include nature and flexible structures.

Conclusions: Findings should be taken into consideration when establishing and designing substance-use treatment for AI people who have used opioids to ensure appropriate accessibility, feasibility, and implementation concerns are addressed.

Keywords

American Indians; content analysis; opioid use disorder; substance-use treatment

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According to the 2021 National Survey on Drug Use and Health (NSDUH), approximately 82,000 American Indian/Alaska Native (AI/AN) people ages 12 or older have misused opioids within the past year. Further, the prevalence of opioid use disorder (OUD) among AI/AN people is higher than in the general population (Soto et al., 2022).[1] These numbers are particularly concerning in light of recent reporting that AI/AN people had the highest rates of opioid related deaths compared to any racial or ethnic group in 2021 (Centers for Disease Control and Prevention [CDC], 2023).

Considering these figures, resolution of the inequities in the experience of substance use disorder and substance-related harm is a pressing need for this population. Although Western substance-use treatment has been the primary response, it may also be culturally discordant and secondarily preferred to traditional healing practices among Native populations (Zeledon et al., 2022; Nelson et al., 2023; Venner et al., 2021; Skewes et al., 2024). Furthermore, systemic barriers — such as diminished accessibility to pharmacotherapies, great distances to substance-use treatment facilities, and difficulties retaining medical providers in rural areas or reservations — can further impede substance-use treatment (Venner et al., 2018). Stigmatization and marginalization of those who utilize medication for opioid use disorder (MOUD) or substance-use treatment services more generally can exacerbate negative treatment perceptions (Landry et al., 2016; Venner et al., 2018).

Despite these important observations from researchers, clinicians and traditional health professionals, there is a dearth of studies directly asking AI people who have used opioids about their own perceptions of substance-use treatments they have experienced and how they might be improved moving forward. This study thus features a conventional content analysis of interviews with AI people who have used opioids to highlight their perceptions of currently available substance-use treatment as well as their suggestions for the enhancement of substance-use treatment moving forward. This study will help to answer how current substance-use treatment can be improved from those who directly utilize these services, which has shown to help shape effective, community-informed substance-use treatment efforts (Kennedy et al., 2022; Dickerson et al., 2022).

Methods

Design

This study describes analysis of data collected in the context of a larger, 3-phase, community-based participatory research project (Counseling for Harm Reduction and Retention in MOUD in Cherokee Nation (CHaRRM-CN; R33/R61DA049376; PIs: Nelson, Collins, Lincoln). Community-based participatory research (CBPR) is a collaborative research approach that can be leveraged to amplify community member's, stakeholders, and researchers' collective knowledge while tailoring treatment to meet community's needs and facilitate positive social change (Collins et al., 2018; Wallerstein et al., 2017). In

[1]When other authors have indicated their study samples included AI/AN respondents, we have maintained the original language to accurately represent their study and its findings. However, in this study, the sample will be referred to as including "AI people," as there was no Alaska Native representation.

the first phase, MOUD patients and community members' perceptions are elicited around existing substance-use treatment experiences and suggestions for enhancement. Second, findings are presented to a community advisory board to co-develop manualized intervention approaches which are tested in the third phase via randomized controlled trials. The focus of this analysis, which was conducted in the first phase of this model, is to home in on themes characterizing participants' perceptions of existing substance-use treatment services and how the latter might be improved for AI people who have used opioids. Findings cover the broader substance-use treatment landscape including MOUD and behavioral health treatments across a range of settings and treatment intensities (e.g., inpatient, outpatient, aftercare). Conventional content analysis was used to qualitatively analyze transcripts of interview data collected during one-time interviews with Native community members who were either currently receiving MOUD in the Cherokee Nation Health Service (CNHS) MOUD program or people who have used opioids who are living in Cherokee Nation jurisdiction.

Participants

Participants in this study were adult residents of Cherokee Nation and represent various tribal affiliations including Cherokee, Osage, Chickasaw, Shawnee, Seminole, Choctaw, and Creek (N=45), including 30 patients currently receiving MOUD at CNHS and 15 community members who have used opioids. For this study, current patients who received MOUD through a combined pharmacobehavioral program are referred to as "MAT" and community members impacted by opioid use are referred to as "COM." See Table 1 for a sociodemographic description of the sample. Further, the sampling of CNHS MOUD patients was a priority, however, including community members who have used opioids who were not engaged in formalized OUD treatment was considered integral in improving treatment engagement. Thus, findings from both MAT patients and community members are presented in conjunction.

Measures

Participants engaged in one-time, semi-structured interviews that lasted between 45–90 minutes and, in part, comprised open-ended prompts to elicit participant perceptions of substance-use treatment they had experienced across the course of their lives, including but not limited to, treatment for OUD or services within CNHS, as well as suggestions for how it can be improved moving forward. (Of note, data were collected from October 2020 to December 2021, during the peak of the COVID-19 pandemic, which had global as well as individual-level impacts on healthcare service provision and access. Further information regarding participants perceptions on the impact that COVID-19 had on service provision can be found here [Nelson et al., in press].) The responses to prompts analyzed for the current study were part of a larger interview (see Appendix A for the comprehensive qualitative prompts). Key prompts that served as the focus for the present analysis included: "When I bring up the term 'drug treatment,' what does that mean for you? Have you been to drug treatment before? How about here at CNHS? What was that like for you? What are some of the good things about drug treatment? What are some of the no-so-good things about drug treatment? If you could design 'drug treatment' in your own vision, if you were the boss, what would that look like?"; however, we included data collected

about participants' experience of substance-use treatment and their suggestions for its enhancement wherever it spontaneously occurred during participant interviews.

Single items from the *Personal Information Form* were administered to assess demographics, including age, gender, sex assigned at birth, race, ethnicity, tribal affiliation, education level, employment status, housing history, military history, and current participation in mutual-help groups and other substance-use treatment. These responses provided data for a sample description.

Procedures

All study procedures were reviewed and approved by the Washington State University and Cherokee Nation Institutional Review Boards. This manuscript was reviewed prior to submission by the Cherokee Nation Institutional Review Board.

The study recruited participants a) in person at the CNHS clinic, b) using recruitment flyers hung at CNHS and other settings within the community, c) placing ads in local newspapers and news sites, and d) by word of mouth as prior participants were able to distribute the study information to other family and friends they thought might be interested. When participants contacted the study phone number, they were scheduled for an interview either in person or using their own personal phone/video conference device.

Study staff informed participants about the purpose of the study, its procedures, their rights as participants, confidentiality, and its limitations. Prospective participants provided verbal informed consent that was audio recorded and documented by the study staff on Research Electronic Data Capture (REDCap; Harris et al., 2009). Study staff presented the qualitative interview prompts, and participants' replies were documented and audio recorded. Demographic items were then presented by study staff and participants' responses were recorded in REDCap hosted at Washington State University. The REDCap system meets HIPAA compliance standards and is considered a secure online data collection tool. Once the interview was completed, participants had the option of receiving a $40 e-gift card or mailed gift card to honor their time and participation.

Data Preparation and Analysis Plan

Semi-structured interviews were audio recorded and transcribed for analysis. Prior to transcription, interviews were stripped of any identifying information. Conventional content analysis was used to examine participants' perceptions of substance-use treatment. Conventional content analysis utilizes qualitative evaluation to interpret the context of text data by identifying patterns and themes through systematic coding. Instead of using preconceived categorization and existing theories, inductive category development is achieved by allowing the data to dictate codes and categories (Hsieh & Shannon, 2005).

Dedoose version *9.0.17* was used to analyze study data. A line-by-line coding process was used for the initial data pass and creation of a codebook (Charmaz, 2006). Codes generated were applied on a subset of interviews, and discrepancies were analyzed until adequate intercoder consistency (79%) was reached. Data quality was assessed through checking representativeness, employing researcher triangulation to enhance the verification

of identified themes, and eliciting feedback from community advisory board members (Miles et al., 2018). The remainder of the interviews were independently coded by seven coders once consistency was met. The final step of analysis entailed organization of the codes into themes described and grounded in participant data (Hsieh, 2005; Charmaz, 2006). To provide transparency regarding the sufficiency of data and groundedness of overarching themes, we included those that were endorsed by five or more participants.

Results

Resulting themes are presented across 2 axes: those that reflect participants' a) perceptions of existing substance-use treatment programs and b) suggestions for enhancing substance-use treatment. On each axis, we present overarching themes and their subthematic facets (see Table 2 for themes and their relative representation).

Perceptions of Existing Substance-Use Treatment Programs

Positive Experiences with Counseling Were Viewed as an Essential Aspect of Substance-Use Treatment: Overall, 16 participants (35.56%) expressed having positive experiences with counseling in substance-use treatment. Participants indicated that simply having counselors as a supportive listener was key to their recovery. For example, one participant noted they "need someone to talk to. Things, uh, it just…sometimes things just get out of whack in your everyday life, and it's good to have someone to talk to" (COM5). Another participant indicated, "What I liked about it was, um, I got to talk to somebody about my issues" (COM11). Still another intimated "going in and getting help originally helped me a lot. Uh, just having somebody to talk to, about things" (MAT8).

Additionally, participants indicated that certain characteristics and qualities were important for building rapport (see Table 2 for relative representation). Participants thought that having a close and supportive relationship with their counselor was important, "I got a lot of support around me, you know, as far as counselors. I have a lot of people I could reach out to at any time" (MAT6). Another noted: "She knows everything about me. She's like... She's like my mom" (COM15).

Others pointed out how counselors' help in navigating the substance-use treatment experience built trust and strengthened the therapeutic alliance. One participant described their counselor as "a wizard to me. She helps me with everything. Um, because I got so scattered when I was on those pills" (COM14). Another noted that "everything I ever wanted to she's helped me get. She went, the counselor, herself, she's went way out of her way. And helped me get things that I needed to get which means a hell of a lot to me" (MAT1).

Participants mentioned that an important quality of a counselor was being nonjudgmental. One participant shared that "they're very understanding and I, I just feel comfortable talking to 'em. I don't feel like I'm judged" (MAT29). Another confirmed, "They didn't judge me, uh, for all the craziness that I went through. And, um, that means a lot" (MAT30).

Logistical Challenges Complicate Access to Substance-Use Treatment Services: While participants noted positive aspects of substance-use treatment programs,

such as supportive counseling experiences, they also highlighted barriers that hinder access to these services. Of the 45 participants, six (13.33%) mentioned having to drive great distances to receive services. One participant noted, “It’s 30 minutes the other way-... you know? 30 minutes east of me, the opposite direction of anything… That’s gas, that’s time, that’s energy, that’s pain, you know?” (COM9). Another participant reported not having a vehicle and thus having even greater barriers to substance-use treatment attendance: “Uh, I just quit making those appointments at [facility] because I don’t have a car” (COM15). Even when telehealth options were available, limited internet connectivity and broadband access in outlying, rural areas inhibited participants from benefitting from and utilizing this service modality. Thus, one participant noted that “we don’t have internet access here. So I didn’t really have the option to do [telemedicine]” (MAT22).

Another key structural barrier was the cost associated with substance-use treatment and MOUD in particular, which varied widely depending on participants’ insurance coverage and location and availability of the various treatment settings (e.g., Indian Health Services or CNHS facilities) participants engaged with at the time they were seeking treatment (see Table 2 for relative representation). Of note, there are also some extenuating circumstances that can result in expenses not being covered by CNHS (e.g., participants wanting to pick up their medication at a closer unaffiliated pharmacy). In speaking about seeking buprenorphine treatment prior to the 2016 start of CNHS’s MOUD program, which is free to tribal members, one participant said they had paid their provider “$290, every month. $290. That’s how much I had to pay him” (MAT25). Another noted that, when they tried to initiate buprenorphine treatment, “I was calling around trying to find out some kind of clinic to get into. And they was all charging, like, $200–$300 just for the office visit plus you got to pay for your medicine” (MAT21). Because of the cost, some clinics need to confirm participants’ insurance ahead of time, which can inadvertently precipitate patients’ withdrawal: “They wanted to make sure that I had insurance that would pay for it ‘cause it was very, very, very expensive, and within about a day, that everything got, uh, in order, and I went through withdrawals” (MAT19).

Intrinsic Motivation for Change and Treatment Outweigh Extrinsic Pressures: Of the 45 participants, seven (15.56%) felt intrinsic motivation to change was important for substance-use treatment engagement and completion, which is still often reliant on abstinence attainment and maintenance. One participant noted that substance-use treatment that required abstinence was helpful only when it was aligned with their current intrinsic motivation for change: “I was ready to quit, for good, and I knew that this was like my last chance. It was now or never. So, I accepted the program with open arms, did everything they told me, listened to everything they said, and voilà. Uh, I came out clean, and feeling so much better, and, uh, ever since the day I walked out of there, until right this very minute, I’ve been clean. Every person has to get to a point that they have had enough, and they are ready and willing to stop, because if they’re not ready, they’ll go through the program and they’ll be right back out on the street” (MAT19). Another participant described how the effectiveness of substance-use treatment is contingent on a person’s willingness to engage with the services, “You got to be honest with ‘em and, you know, if you’re really serious

about staying clean…I mean, if the person, it's [substance-use treatment] got to be good if the person really wants it" (MAT6).

Conversely, being forced into substance-use treatment when interest in abstinence attainment within an inpatient setting was not intrinsically motivated was not felt to be conducive to recovery (see Table 2 for relative representation). One participant confided, "I've heard a lot of bad things about the drug treatment centers and most people are court ordered to go there. If you don't volunteer and wanna go yourself, I heard they're a bad place. I don't really have a whole lot of hope for 'em" (COM4). Another participant mentioned being court ordered to attend treatment and "didn't like being forced to go" (MAT2). One participant summarized, "Here's the thing about people: Drug treatment, um, if they're being forced to do it, they don't want to quit…So, drug treatment shouldn't be forced upon anybody. It should be something that they can, they have an option of" (COM2).

Substance-Use Treatment Programs Were Viewed Alternately as Therapeutic and Punitive: Given the perceived role of intrinsic motivation in influencing treatment engagement and effectiveness, participants remained divided on whether treatment served as a punitive environment or a refuge from daily pressures. Inpatient, substance-use treatment —from entry throughout the stay—was often viewed as overly punitive (see Table 2 for relative representation). One individual recounted humiliating intake procedures in an inpatient treatment facility: "You get stripped of everything and you have a certain amount of clothes and stuff like that, and you, uh, I mean, that kind of sucks" (COM11). Another participant noted the routine of inpatient treatment was a "very rigid, uh, program. You have to be up at a certain time. Uh, you have classes you have to attend…" (MAT19). Two participants perceived this substance-use treatment as punitive and confining (e.g., "felt like I was gonna be trapped and I, I don't like that feeling" [COM3], "it felt kind of like jail" [MAT14]).

Conversely, two participants (4.44%) emphasized that the inpatient substance-use treatment environment did alleviate the pressures of their day-to-day lives and avoid higher-risk situations. One participant said, "When you go inpatient, you have more of a chance to, uh, cut, cut ties with all the people that have influenced you and, uh, um, try to, you know, peer pressure you" (COM11). Another noted, "You're trying to, you try and surround yourself with everything away from drugs that you can, because if you wanna quit, you have to change your surroundings" (COM2).

Participants' Suggestions for Enhancing Substance-Use Treatment

Participants Wanted to Incorporate Native Programming, Activities, and Traditional Medicine into Substance-Use Treatment: Sixteen participants (35.56%) wanted to see the increased incorporation of their culture embedded within recovery services. Only two participants mentioned having experienced a substance-use treatment program that already incorporated Native-centered healing such as having access to a "sweat lodge" and "praying" (MAT17, COM11). A few participants wanted more specific Native programming such as: "sweats and all of that, you know, I- I would enjoy some of that" (COM5), "traditional games or something like that, or metal making, basket making,

something to occupy your time" (COM10), and "maybe language or, uh, oh, um, like bow-making skills, arrow-making skills" (MAT11). Other participants suggested that traditional herbs, natural healing, and a medicine wheel be incorporated into substance-use treatment (MAT30, MAT16, MAT29, respectively). One participant wanted to integrate both Western medicine and traditional medicine, "Here's something else I have thought of in the past, combining, combine Western medicine with herbal medicine. Um, that's what I do. The only Western medicine I'm on, full-time, is the [buprenorphine]. And then the rest of what I use is herbal" (MAT30). In general, people thought that "getting back to [their] culture, you know, would help. Make them proud of their culture and maybe that would help them to not want to do the drugs and alcohol" (COM5).

Social Services Should be Integrated into Substance-Use Treatment: Many participants (22.22%) wanted to find ways to remove barriers to working. Some participants were interested in vocational training and career placement services being better incorporated into substance-use treatment settings (see Table 2 for relative representation). One participant suggested certification training "like for, you know, CDLOs, or something like that. Because there's a lot of people, like Indians, especially Indians, that want to drive a truck, or do drive trucks. That's a, actually a really big high priority job around here" (MAT25). Another participant was interested in "welding or something like that" (MAT25). Others wanted more general assistance such as "get training to do something that I would be happy with" (MAT12) or have a system that allows people to "work and without a stigma and a low cost" (COM8) alluding to the importance of maintaining and obtaining employment after or during substance-use treatment. Beyond vocational training, one community member (COM5) suggested a more structural intervention, stating that companies should receive incentives for hiring people with substance use disorder marginalized by a criminal record: "…then about, uh, about getting a job, like maybe some way, they can make a tax break for people that would hire felons, you know, something like that."

Other participants requested wellness programming to expand upon typical substance-use treatment content, which mostly focuses on abstinence from substance use. Specifically, three participants (6.67%) noted that supporting family systems was salient (e.g., "help you reconnect with your family kind of program" [COM15]). One participant envisioned facilities "where you can go and definitely bring your kid" (MAT7). Other participants (4.44%) suggested a more holistic approach, specifically naming physical fitness and nutrition programming (e.g., "working out" [MAT25], "yoga in the sun" [MAT25], "diet would be extremely important" [MAT30]) and "support pets for them and gardening" (MAT26; (see Table 2 for relative representation).

Participants also expressed an interest in getting basic needs fulfilled. One participant mentioned housing as key due to their personal experience of facing difficulties: "Also, housing, I can't get uh, uh, uh Cherokee housing. I can't get in Cherokee housing because of my record" (COM5). Another indicated a need for reintegration back into community spaces, more generally: "We just need to make sure that there's a reintegration program that, that allows these people a way to show what they might have left to offer afterwards" (COM14). This sentiment was expanded by a participant who hoped "communities or a state

resolve to help people become productive citizens again, you know, um, or help them, you know, end their drug use" (MAT25).

Participants Want Access to Both Individual and Group Counseling: Eight participants spontaneously mentioned wanting robust group offerings. Some participants thought that group settings create a safe space to connect with others who share similar struggles (see Table 2 for relative representation). One participant noted, "It's just paramount because the people like being around other people that are just like you and that have shared those same experiences and the same heartache and that are being successful. … That is key because that's inspiring" [MAT7]. Another said, "People can relate to other people, the same people that are coming here, you know" [MAT27]). Stemming from these shared experiences, two participants expressed interest in specific types of groups. One said, "I would like to see a, uh, uh, like a group therapy of like other people that may have lost children too" (MAT29). Another thought that organized group outings allow people to connect outside the confines of substance-use treatment facilities: "Go to the, go to a garden, go to a park, you know, as a, as a, as a group" (MAT15).

Seven participants (15.56%) wanted individualized care via one-on-one substance-use treatment service provision. Participants suggested that one-on-one treatment would allow for the processing of issues that extend beyond but are interconnected with their substance use (e.g., interpersonal violence, childhood abuse). For example, one participant wanted "therapy sessions, that would be part of the program. We, you know, w- we have to have, uh, different types of sessions with different people. And addicts need to talk about why they're doing what they're doing, and, you know, you have to get to the bottom of it. Why are they doing it? And the only way that that's possible, is through some type of, uh, like counseling, uh, in-person type stuff" (MAT19). Among these participants, two voiced that one-on-one substance-use treatment should be offered in addition to group substance-use treatment sessions (MAT19 and MAT25). Participants thought that one-on-one treatment creates a personal and private space for people to share parts of themselves that they might not feel comfortable doing in a group setting (MAT25, MAT5, COM2). For example, one participant preferred one-on-one substance-use treatment over group counseling due to concerns around distractibility and privacy, "I'm a private person…I can focus more and I, I get really pissed off by ignorant people. (Laughs) So, I don't know. I just don't wanna be distracted by anything, because there's a lot of people that don't take it serious…" (MAT25). One-on-one substance-use treatment provision would enable providers to "see where [patients] are at, how long they've been in, and what they're willing to do," (COM 2) thus creating collaborative care between client and provider.

Participants Were Interested in More Nature-Based Treatment Settings: Six participants (13.33%) shared perspectives that substance-use treatment facilities should be surrounded by nature or include time spent outdoors. One participant noted that this type of setting would evoke a calming and peaceful environment, "It would be secluded. Um, you know, some, somewhere, like, out in the country. Um, some place that's away, that's peaceful, um, that's quiet. Um, it would be real spacious. Um, it would just be, it would be really comfortable, kind of like a home" (MAT28). Another participant shared similar

sentiments wherein they preferred a more sequestered, nature-based setting “instead of a big city like Tulsa. Um, I ran to the needle. I didn’t have... There was no nature” (COM14). Another participant thought that substance-use treatment in general should include “outdoorsy stuff” (MAT26).

Discussion

The aims of this study were to ensure more representation of AI voices in the current substance-use treatment literature, provide insights on prior substance-use treatment experiences, and suggest enhancements for treatment provision based on perceptions of AI people who have used opioids.

Perceptions of Existing Substance-Use Treatment Programs

Participants named sizeable logistical and structural barriers to treatment. Such barriers included having to drive great distances to substance-use treatment services and high costs associated with substance-use treatment provision and medications. These findings echo those of other research studies within AI communities, which have noted that such barriers create a unique constellation of challenges around AI patients benefiting from substance-use treatment (Venner et al., 2018).

Although the COVID-19 pandemic has increased the delivery of telehealth options, participants who lack internet access or connectivity, especially in more rural locations, noted they are unable to make use of these modalities and face further challenges to obtaining treatment when living a distance from substance-use treatment providers. The need for better Internet connectivity and access has been noted, especially for rural communities and communities of color (Dixit et al., 2022). Together with the current findings, the extant literature has underscored the need for larger systemic interventions to ensure AI people, particularly those in rural areas, have equitable internet and technology access.

Participants perceived substance-use treatment programs that enforced strict rules and policies as punitive and alluded to the importance of intrinsic motivation to change in substance-use treatment success. Further, court-ordered or mandatory substance-use treatment attendance were viewed as ineffective and aversive for some participants due to the removal of personal freedom, so voluntariness of treatment-seeking and support of patients own intrinsic motivation for change was important. These finding echoes those of similar studies conducted with AI/ANs with AUD (Nelson et al., 2023) as well as other marginalized populations (Clifasefi et al., 2016; Collins et al., 2012a; Collins et al., 2016; Collins et al., 2012b; Crabtree et al., 2018). Given the accumulating findings, substance-use treatment programs are face with the imperative and the information to ensure services better conform to AI patients’ needs.

Counseling was viewed as a foundational component of substance-use treatment. Similar to findings from other recent studies with AI/AN patients with AUD (Nelson et al. 2023; Nelson et al., 2022), participants particularly valued counselors who were nonjudgmental and able to build close and flexible therapeutic alliances. These characteristics allowed

participants to feel comfortable and supported in their recovery journey. This finding maps onto prior research highlighting the importance of nonspecific therapeutic factors in predicting substance use outcomes within treatment (Hartzler et al., 2011; Collins et al., 2016; Juntunen & Morin, 2004).

A couple of participants noted that substance-use treatment provided needed respite from environments and individuals associated with substance use. This finding maps onto prior research that social vulnerabilities and environments can contribute to additive stressors for substance use (Jadidi & Nakhaee, 2014; Mennis et al., 2016), so removal from higher-risk environments was perceived as fostering healing and recovery. That said, some participants reported appreciating connecting with those with lived experience of substance use within treatment settings. Thus, building community among people with lived experience is important, and can be beneficial if those people are invested in recovery as well.

Participants' Suggestions for Enhancing Substance-Use Treatment

This study also documented suggestions for the enhancement of MOUD and substance-use treatment programs. As highlighted in the community-based participatory research (CBPR) literature, incorporating community feedback can ensure needs are met by those who directly utilize services while moving to improve substance-use treatment outcomes and engagement (Collins et al., 2018). Considering patients' own suggestions for substance-use treatment enhancement is particularly critical for opioid use treatment as MOUD retention is necessary for substance-use treatment to be effective (Timko et al., 2016; National Academies of Science Engineering, and Medicine et al., 2017; Ma et al., 2019). Thus, the current findings can inform ways in which substance-use treatment and opioid use treatment more specifically may be transformed from its current state to better align with community needs to improve substance-use treatment outcomes for AI people who have used opioids. If improvements suggested by the community are thus implemented into substance-use treatment programs, enhanced general treatment satisfaction and therefore increased retention can ensue, as evidenced by other CBPR-driven efforts (Collins et al, 2019; Collins et al, 2021; Dickerson et al., 2022).

One suggestion from participants was ensuring both individual and group substance-use treatment modalities were offered, especially given participants' heterogenous experiences and contexts surrounding trauma, substance use and recovery. This finding corresponds to those of other qualitative studies wherein participants who use substances have expressed an interest in both individual and group counseling (Nelson et al., 2023; Collins et al., 2016). Specifically, participants noted that individual sessions allow for more personalized services wherein clients may disclose about key precipitating factors of their opioid use that feel too intimate for group settings (e.g., adverse childhood experiences, historical trauma, current risk factors). This secondarily increases opportunities for providers to track individual progress and come up with collaborative goals towards recovery, another key aspect of patient-centered substance-use treatment (Fentress et al., 2021).

Group treatment was likewise cited as important in substance-use treatment as it promotes relationship-building and exchange of acquired recovery knowledge from peers with lived experience (Tracy & Wallace, 2016). Most participants did not view one-on-one substance-

use treatment and groups as mutually exclusive, but asked for access to both, which is corroborated in prior research (Nelson et al., 2023; Novins et al., 2011).

Participants also suggested that substance-use treatment services include other social services to ensure successful community reentry following more intensive substance-use treatment courses (e.g., providing housing and vocational training, as needed and desired). Participants suggested the integration of skill acquirement and certificate training opportunities are necessary in being able to financially support themselves and their families, especially coming out of a period where they may have been incarcerated, displaced, or unable to work for a time. These findings are bolstered by other research that indicated that gainful employment is strongly associated with better recovery outcomes for those in substance-use treatment (Magura & Marshall, 2020).

Finally, participants reported wanting to ensure more incorporation of traditional Native practices and ceremonies into substance-use treatment (e.g., sweat lodge and prayer), which have been long cited as key to recovery in Native populations (Venner et al., 2018; Nelson et al., 2023; Blume, 2021; Dickerson et al., 2012; Mpofu et al., 2021; Zeledon et al., 2020). A few participants reported wanting to learn more generally about their culture. Other participants proposed more specific programming to engage hands-on with traditional medicine, language, and crafts (e.g., basket making). These findings are consistent with prior literature indicating that people want to receive more culturally appropriate substance-use treatment that incorporates Indigenous ways of knowing and healing (Nelson et al., 2023; Venner et al., 2018; Novins et al., 2011; Goldstein et al., 2022). This perspective should be considered when disseminating and creating more culturally aligned interventions in the future.

Constraints on Generality

While each tribal culture among AI communities is unique, there are some shared historical experiences that may lead to similar desires when accessing substance-use treatment services in other Indigenous communities. Additionally, qualitative work is not to be generalized. As the focus of qualitative analysis is on theoretical sampling and transferability versus generalizability (Korstjens & Moser, 2018), it is important for the reader to consider whether and how this information may be applicable to their own communities. However, findings may be viable beyond the current sample and can provide a starting point for other communities.

Limitations

This study was carried out in a specific context. Cherokee Nation of Oklahoma, where participants were residing during the interviews, is a large, rural reservation that is better treatment-resourced than some other tribal communities. Further, individual experiences of substance-use treatment through private providers, often across state lines, may not correspond to others' experiences, which often vary from state to state and from rural to urban locations. Moreover, participants were asked more generally about their treatment experiences and suggestions. Thus, some participant responses might be setting specific (e.g., inpatient, outpatient, primary care with MOUD) and may not translate to other

treatment contexts. Although participants did not spontaneously refer to specific harm-reduction services during the interview, there is currently more community awareness developing around this topic. Future studies are well-positioned to probe and obtain perceptions of various types of harm-reduction services as these become more well-known and widespread in these communities to develop more accessible service provision and address additional opioid-related issues.

Another limitation of the study was our focus on the patient experience; it did not include the perceptions and experiences of substance-use treatment providers, counselors, and staff. Future studies are planned to include those groups and thereby enrich the current findings. Of note, perspectives were documented during the height of the COVID-19 pandemic. Further, local program offerings and program availability has changed subsequent to data collection. Despite these limitations, however, this study documented perceptions of existing substance-use treatment and suggestions on how service provision can be enhanced among AI people who have used opioids.

Conclusions and Future Directions

The present findings suggest important clinical as well as broader public health implications which should be taken into consideration when designing substance-use treatment for AI people who have used opioids. In this study, participants highlighted what is working and not working about existing substance-use treatment. They pointed out logistical challenges to treatment engagement (e.g., distances in rural areas, the high cost of effective substance-use treatment) and the need for nonjudgmental counseling that bolsters intrinsic motivation for change versus punitive treatment environments and external pressures for abstinence. Additionally, participants offered useful suggestions for enhancing substance-use treatment. Participants wanted robust individual and group counseling experiences. They asserted the need for healing settings that involve nature and Native cultural connectedness. As indicated by participants, nature is an important source of healing and to ignore it in substance-use treatment would miss an important cultural source for healing. They hoped treatment services could be expanded to include other social services to facilitate reentry, such as housing and vocational training.

When establishing and redesigning new programs, policy makers, administrators and providers, should keep participants' recommendations in mind to ensure appropriate accessibility, feasibility, and implementation concerns are addressed. Findings suggest the need for training, policy changes on a larger scale, and future research to facilitate the design, analysis, and implementation of these patient-driven suggestions. Subsequent research efforts should incorporate these suggestions and then assess the outcomes of OUD treatment that is low-barrier, resource-rich, patient-driven, and Native-centric. To further hone recommendations, future studies may also be planned that sample for and test perceptions of treatment across various relevant population subgroups. It will also be important to differentiate which aspects of such patient-driven treatment packages are most helpful in boosting retention and treatment effectiveness for AI patients who have used opioids.

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Appendix A

Note to research staff: After each question, use additional probes, such as “tell me more,” “what else,” “how so,” and “anything else?” to elicit more information from respondents.

*__Note:__ prompts that are bolded refer to the main prompts utilized in analysis

- You may have heard in the news there is a new virus going around—the coronavirus—and an illness that it causes – COVID-19.
  - What have you heard about it?
  - What are your concerns?
  - What information do you want from CNHS about COVID-19?
- Because of COVID-19, many health care providers are now providing health care over the phone or over video conferencing. What do you think about that?
- What is your preferred way to receive support in your health care generally? Would you prefer your providers are in touch to provide health care appointments via:
  - Phone
  - Video conferencing
  - Internet chat
  - Email
  - Postal mail
  - Other (please specify)
- What is your preferred way to receive support in your substance use treatment? Would you prefer your providers are in touch to provide substance-use treatment via:
  - Phone
  - Video conferencing
  - Internet chat
  - Email
  - Postal mail

- Other (please specify)

- Thinking about your substance use—and just as a reminder, these interviews are confidential and your specific responses won't be shared with your provider:
  - How would you describe your substance use?
  - What role does it play in your life right now?
  - What substances are you currently using?
  - What are some of the good things/ things you like about your substance use?
  - what are some of the not-so-good things or things you don't like about your substance use?

- **When I bring up the term "drug treatment," what does that mean to you?**
  - **Have you been to drug treatment before? How about here at CNHS?**
  - **What was that like for you?**
  - **What are some of the good things about drug treatment?**
  - **What are some of the not-so-good things about drug treatment?**
  - **Have you ever heard of an approach where people are not required to be sober but instead you could pick your own goals? This is sometimes called a harm-reduction approach because the focus is on reducing harm caused by substances even if a person is not ready, willing or able to stop using. It's about meeting people where they are at. What do you think of such a treatment?**
  - **If you could design "drug treatment" in your own vision, if you were the boss, what would that look like?**

- **As you may know, medication assisted treatment or MAT is a program where people get medicine they take regularly –like methadone or suboxone – to help them slow down or stop using opioids like heroin.**
  - **Are you currently prescribed MAT, like suboxone or methadone?**
    - **If YES:**
      - **How did you hear about MAT and what made you decide to try it?**
      - **What do you like about it?/What makes is work for you, right now?/What keeps you coming back?**
      - **What do you not like?/What could be improved?**
      - **What do you wish there were more of, in terms of MAT program services?**

- **What do you wish there were less of, in terms of MAT program services?**

♦ **If NO:**

- **Would you be interested in MAT?**
- **Why?/why not?**

- **Oftentimes, MAT comes with counseling. That is sometimes provided by doctors, nurses or chemical dependency counselors.**
  - **Who talks to you or does counseling with you around your opioid use right now?**
  - **If current/past MAT program participant: What do/did you think of the counseling around your MAT treatment?**
  - **What do/did you like?**
  - **What do/did you not like so much?**
  - **How could MAT be improved?/How could MAT be improved to make you want to come back?**
  - **If you could design it in your own vision or in the way you would like, what would that look like?**
- Drug treatment might be one part of your life. But there are other things going on that matter to people as well.
  - What are the 3 most important things in your life?
  - What other practices, healing or support groups are helpful to you in your life?
  - What are your most cherished practices, as a Cherokee citizen?
  - What are your best memories of cultural practices and events?
  - Are there healing circles, traditions or other practices that you wish were more integrated into drug treatment services or other health services at CNHS?

♦ If yes, what healing circles, traditions or other practices would you like to see integrated into your drug treatment services?

♦ If yes, what healing circles, traditions or other practices would you like to see integrated into your other health services here at CNHS?

- What else would you like to share today?

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Public significance statement:

The present study highlights perceptions of substance-use treatment and suggestions for enhancement among American Indian (AI) people who have used opioids. Findings can inform ways in which substance-use treatment can be transformed from its current state to align with community needs to improve treatment accessibility and feasibility.

Table 1.

Demographics (N = 45).

Variables	*M* (*SD*)/% (*n*)
Age	40.43 (11.75)
Sex assigned at birth	48.9% (22) female
	48.9% (22) male
	2.2% (1) two-spirit
Ethnicity	13.6% (6) Hispanic/Latinx
Race	
American Indian/Alaska Native	36.4% (16)
More than one race[a]	63.6% (28)
Highest level of education completed	
8th grade	2.2% (1)
9th grade	2.2% (1)
10th grade	2.2% (1)
11th grade	2.2% (1)
12th grade	17.8% (8)
GED	8.9% (4)
Vocational school/associate degree	15.6% (7)
Some college	35.6% (16)
College graduate	11.1% (5)
Advanced degree	2.2% (1)

Note.

[a]All participants who reported “more than one race” identified as American Indian plus another race. Overall, seven different tribal affiliations are represented among participants in this sample. All participants in the study were AI, but we used the National Institutes of Health racial categories, including “AI/AN,” to stay consistent with naming conventions.

Table 2.

Perceptions of Existing Substance-Use Treatment and Visions for Enhancement.

Theme	*n*	%
Perceptions of Existing Substance-Use Treatment Programs		
Positive experiences with counseling were viewed as essential	16	35.56%
General positive counseling experiences	10	22.22%
Close and supportive relationships	4	8.89%
Nonjudgmental counseling	2	4.44%
Logistical challenges complicate access	11	24.44%
Distance to treatment facilities	6	13.33%
Costs associated with treatment[a]	3	6.67%
Additional logistical challenges	2	4.44%
Intrinsic motivation for change/treatment outweigh extrinsic pressures	7	15.56%
Substance-use treatment programs viewed as therapeutic and punitive	6	13.33%
Overly punitive	4	8.89%
Respite	2	4.44%
Participants' Suggestions for Enhancing Substance-Use Treatment		
Participants wanted to incorporate Native programming	16	35.56%
Social services should be integrated into substance-use treatment	10	22.22%
Vocational training	6	13.33%
Familial reconnection	3	6.67%
Additional unspecified social services	1	2.22%
Participants want access to group counseling	8	17.78%
Participants want access to individual counseling	7	15.55%
Participants were interested in more nature-based treatment settings	6	13.33%

Note. $N = 45$. Percentages may not total 100% due to rounding.

[a]Costs associated with treatment varied depending on participants' insurance coverage and location and availability of various treatment settings at the time. Overarching themes included those that were endorsed by five or more participants.