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Substance use disorder and homelessness among American Indians and Alaska Natives in California

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ABSTRACT

American Indian and Alaska Native (AIAN) communities have higher rates of substance use than other racial and ethnic groups. Substance use disorder (SUD) is tied to the increased risk of experiencing homelessness. National policies have also led to the disproportionate rates of homelessness among AIAN communities. However, specific experiences related to the occurrence of SUD and homelessness among AIAN in California, as well as seeking and accessing SUD treatment, are not well understood. This study explored potential SUD risk and resilience factors for AIANs experiencing homelessness and their experiences when seeking services for SUD. Nineteen interviews were conducted in northern, central, and southern California. Thematic analysis was used for these data. The five primary codes were: (1) risk factors for SUD, (2) resilience related to SUD service seeking, (3) services available, (4) barriers accessing services, and (5) services needed. Based on the results, themes for risk were trauma, mental health, and community conditions. Themes for resilience were identified at individual and community levels and included personal motivation and community support and inclusiveness. Themes for services available were limited knowledge about service types and services' location. The themes for barriers accessing services were identified at internal and external levels, and included lack of readiness and transportation challenges, respectively. Themes for services needed included continuum of care, integrated care, and culturally sensitive services. Findings highlight the importance of addressing the potential risk factors and service needs of AIANs experiencing homelessness to provide comprehensive and culturally sensitive services to reduce substance use.

KEYWORDS

American Indians Alaska Natives; substance use disorder; homelessness; trauma; mental health

Introduction

American Indian and Alaska Natives (AIANs) experience disproportionately high rates of substance use disorders (SUD) compared to all other ethnic or racial groups in the United States (Substance Abuse and Mental Health

Services Association [SAMHSA], 2019). AIANs are also overrepresented among people experiencing homelessness in the United States, comprising 3.6% of the homeless population, while making up 1.3% of the nation's population (Henry et al., 2020). In 2019, one-third of the nation's total homeless population lived in California, and 4.5% of this population was AIAN (Henry et al., 2020).

Marked disparities, social injustices, and multiple risk factors act synergistically to influence the high prevalence rates of homelessness and SUD in AIAN communities (Skewes & Blume, 2019; Whitesell et al., 2012). Risk factors include mental health disorders, historical trauma, dislocation, poverty, family separation, foster care involvement, and adverse childhood experiences (Brave Heart et al., 2011; Dawson-Rose et al., 2020; Dickerson et al., 2012; Hossain et al., 2020; United States Interagency Council on Homelessness, 2012). Additionally, acculturative stress experienced when moving between reservation areas and urban areas, varying attachment to cultural identity, and inter-generational exposure to substance use as a normative coping mechanism have been shown to have a significant impact on patterns of substance use in the AIAN population (Brave Heart et al., 2011; Brown et al., 2016; Myhra, 2011). The intersectionality of traumatic experiences, SUD, and homelessness is complex (United States Interagency Council on Homelessness, 2012). Previous literature suggests that individuals' adverse life experiences may predispose them to develop SUD as well as place them at greater risk to lose their housing (Daly, 2020; Davis et al., 2019; Dawson-Rose et al., 2020; Moxley et al., 2020; Thompson et al., 2013).

Significant structural and social barriers to accessing SUD services for people experiencing homelessness further complicate recovery efforts (Hudson et al., 2010). Barriers among individuals from other ethnic and racial backgrounds include: unreliable transportation, limited hours of operation for service agencies, lack of health insurance, uncaring professionals, strict eligibility requirements, and complex paperwork (Gehrig et al., 2017; Zerger, 2004). Other challenges include trouble communicating with service agency staff, homelessness-related stigma, and feeling disempowered (Crosby et al., 2018; Daly, 2020; Magwood et al., 2019). Barriers for AIANs experiencing homelessness and seeking services for SUD include lack of AIAN providers, mistrust of bureaucratic systems, and perceived discrimination (Wille et al., 2017). Unfortunately, the literature is limited in its information on the compounded effects of AIANs' adverse life experiences and the challenges associated with seeking SUD services while experiencing homelessness. Addressing this knowledge gap is critical for meeting the SUD service needs of this population and addressing the disproportionately high prevalence rates of SUD in AIAN communities

experiencing homelessness. This qualitative study aims to better understand risk and resilience factors related to SUD and homelessness, as well as SUD service seeking experiences among AIANs experiencing homelessness or unstable housing.

Method

Data was collected via a university IRB approved research protocol from October 2019 to July 2020. Only one interview was conducted during the COVID-19 pandemic due to agency closures and other COVID-related restrictions. Recruitment efforts focused on the following urban cities in California: Los Angeles, Sacramento, San Francisco, Oakland, and San Diego. The primary reason for selecting these five locations is that there is a large number of AIANs living in these cities compared to other regions in CA (Creighton & Schoen, 2020). Rates of homelessness are also higher in urban settings (Morton et al., 2019). Another significant motive for selecting these cities was based on pre-established partnerships with agencies in these locations. Given the delicate topic of study, the research team decided that it was best to partner with trusted community organizations that the team had already collaborated with. This allowed for recruitment to be primarily done through snowball sampling techniques. Use of traditional methods (e.g., list serves, flyers) to recruit participants would have been challenging based on the unique circumstances of this population. Despite the recruitment and sampling limitations, the research team aimed to improve the sample's representativeness by recruiting from different cities.

Participants were eligible for the study if they were 18 years of age or older, self-identified as AIAN and currently experiencing homelessness. Although it was not an eligibility requirement, it was preferred if a participant previously or currently had experience with SUD. A semi-structured interview guide was utilized (see Table 1). All interviews, except for one (due to COVID-19), were conducted in-person at community clinics and community-based organizations. Interviews lasted an average of one hour and participants received a \$30 gift card for their time. Each interview was guided by a trained AIAN facilitator and supported by an assigned note taker. Interviews also included administration of a survey, which collected demographic information such as age, gender, substance use, and recovery status. See Table 2 for participants' information.

Interviews were audio recorded and transcribed using a professional transcription service. Transcriptions were analyzed by a team of researchers at USC (two who identify as AIAN) using NVivo 12 qualitative data analysis software. The research team developed the initial codebook a

Table 1. Semi-structured interview guide.

| Questions |
|--|
| Questions to assess community/social norms around opioid/substance use |
| What does substance use look like where you are? |
| Which substances do you think cause the most issues? |
| Do you know anyone who is addicted to opioids or other substances? |
| Questions to assess access to substances |
| Where do people get substances in your area? |
| Questions to assess risk/resilience for substance use |
| What do you think causes individuals to use substances (drugs) in your community? |
| What do you see your community doing or offering to help with substance use? |
| What ways, if any, do you see the local tribes, tribal clinics or Native cultural services helping with substance use treatment? |
| Questions to assess services system needs and barriers |
| What kinds of services are available in your community for people who want help with addiction? |
| What would you like to see as far as new services or improving current services to help with substance use treatment? |
| Are services in your community appropriate for Native people? |
| Wrap up questions |
| What advice would you give to us as we plan future services for Native people with substance addiction? |
| What advice would you give to us as we plan future services for those experiencing homelessness with substance addiction? |

Table 2. Participant demographic information.

| | N = 19 | Percent (%) |
|-----------------------------------|--------|-------------|
| Gender | | |
| Male | 9 | 47.37 |
| Female | 9 | 47.37 |
| Prefer not to answer | 1 | 5.26 |
| Age range (Years) | N = 19 | |
| 18–30 | 3 | 15.79 |
| 31–40 | 5 | 26.32 |
| 41–50 | 5 | 26.32 |
| 51–64 | 3 | 15.79 |
| 65+ | 3 | 15.79 |
| City | N = 19 | |
| Los Angeles | 7 | 37 |
| San Francisco | 3 | 16 |
| Oakland | 2 | 11 |
| Sacramento | 6 | 32 |
| San Diego | 1 | 4 |
| First substance ever used | N = 19 | |
| Alcohol | 2 | 10.53 |
| Tobacco | 11 | 57.89 |
| Marijuana | 1 | 5.26 |
| Polysubstance | 5 | 26.32 |
| Age of first substance use | N = 19 | |
| 8–12 | 4 | 21.05 |
| 13–17 | 5 | 26.32 |
| 18–25 | 5 | 26.32 |
| Prefer not to answer | 5 | 26.32 |
| In active SUD recovery | N = 19 | |
| Yes | 8 | 42.11 |
| No | 6 | 31.58 |
| Prefer not to answer | 5 | 26.32 |

priori based on the study's interview questions, which were informed by the literature on this population's challenges, including barriers to care and risk factors. This approach is a well-known method to theoretical thematic analysis and allows researchers to code for specific research

questions (Braun & Clarke, 2006). The research team followed an iterative process to refine the codebook. They coded interviews together to pilot the initial codebook, suggested revisions for accuracy and adaptations, and met to discuss modifications. The final code book was organized around five primary codes: (1) risk factors, (2) resiliency, (3) services available, (4) barriers accessing services, and (5) service needs. Each interview was independently coded by at least two members of the team; the team met weekly to discuss findings and reach consensus. Qualitative coding summaries were completed for all interviews. These summaries were outlined by code and included interview highlights in addition to quotes that captured the themes. The coding summaries were completed by all coders and were meant to summarize each interview transcript and provide relevant quotes to support study results. The criteria for selecting themes were high frequency (e.g., mentioned by 3 or more participants) or impact (e.g., mentioned by one participant, but provided impactful information). Once data analysis was complete, the research team discussed the interpretation of the data with other AIAN researchers and community members to understand the codes in context and ensure validity from an AIAN community perspective.

Results

Analyses were based on interviews with 19 participants. On average, participants were 45 years old ($M = 44.95$, $SD = 14.62$). The mean age at which participants first started consuming substances was 15 years old ($M = 15.23$, $SD = 4.87$). Nine participants were male and nine were female, and one participant preferred not to answer this question. All 19 participants identified with an AI or AN tribe and reported consuming excessive amounts of alcohol and/or other drugs in the past. See Table 2 for additional participant information. Themes were categorized according to the five primary codes from the codebook. Participants shared their perspectives and personal experiences with regard to challenges faced and effects on substance use and homelessness, and it is important to note that our results are not indicative of any causal relationships between potential risk factors and these conditions.

Potential risk factors

Trauma

Eight out of 19 participants stated that experiencing trauma in the form of family separation or loss was a trigger to initiating substance use. Having a parent die or being separated from children by child protective

services was described as particularly life changing and traumatic. According to the National Indian Child Welfare Association (NICWA), (n.d.), AIAN children are 2–3 times more likely to be removed from their home than their White non-Hispanic counterparts. In addition, AIAN families have historically experienced child removal through government policies like the era of mandated boarding school attendance (1870–1978). In an effort to preserve family cohesion and cultural connectedness, programs like the Indian Child Welfare Act (ICWA), which seeks to keep AIAN children with AIAN caregivers whenever possible, have been enacted into law. One participant describes the experience as:

... that's the lifestyle I lived. But these last two years, it was just different, because I had a daughter, and I stayed sober for my daughter... But when DCFS [Department of Child and Family Services] took her, I went downhill. So I had to hold my own. I had to stay strong. I had to do a lot of bad things, you know, just to survive. Because down there, girls get raped. —They start selling—prostituting themselves. I won't let that happen. And while I'm doing drugs, and selling drugs, and just everything that has to do with the lifestyle. (Female Participant)

Mental health

Across interview sites, 12 out of 19 participants also indicated that mental health disorders contributed to SUD and homelessness. Depression and anxiety were commonly identified by participants as being part of their experience with initiating substance use. Participants also stated that these conditions were tied to historical trauma and history of childhood abuse. Participants described needing to consume substances to improve their mood and numb the pain, even if they knew it was just a temporary fix.

... probably just trying to distract from whatever depresses them. I know that's why I drink, because I get depressed a lot, and just drinking just kind of distracts me from it, so I don't have to focus on it anymore for a little while. (Male Participant)

Ironically, the drugs that participants reported helped them feel better temporarily, also aggravated mental health problems for many. Participants described feeling like they had lost themselves and lost everything because of substance use. Participants also mentioned that consuming substances made them “lose their brain,” experience panic attacks, feel more depressed, and create physical health problems.

I was killing myself slowly. So to me, [substance use] it's just, drugs, to me, is doing bad things, like robberies, and stealing, and you know, and just doing things just to get the drug. And when I'm on the drug, I'm a different person, you know...And I have no heart. And that leads to jail, you know, and possibly death, because I was injecting... but I just wanted it. Don't you know I need to get high? (Female Participant)

Community conditions

The community environment and living conditions also adversely impacted SUD patterns and homelessness according to participants. AIANs stated that in their community drug use was rampant, and they saw people selling drugs on the street. Participants reported that multiple substances are used in their communities; the top substances reported are alcohol, opiates (e.g., heroin), and stimulants (e.g., crystal meth). Participants described witnessing their friends and family members overdose as a result of the high availability and use of substances like synthetic drugs. Some reported overdosing themselves. Additionally, several participants expressed concerns over the younger generation using “harder” drugs compared to older generations, who primarily consumed alcohol. Participants also described how easy it was to obtain basically any type of illicit substance by just contacting dealers via phone or social media.

It's way too easy. It used to be more discrete years ago, but it's not anymore. They don't care. And they'll just pull it out and do whatever. (Male Participant)

Participants also described that associating with peers and family members who used substances was a risk factor for them because it normalized this behavior and made it more acceptable. Participants also recounted that witnessing others' substance use made them feel that their own use was permissible. Per participants' discussions, experiencing homelessness and being around others in the same situation was yet another stressor that increased the urge to consume substances to escape from reality and numb painful feelings about their current situations.

Resilience

Individual

Some participants stated that they believed it was a personal choice to seek treatment for and recovery from SUD. However, other participants explained that people experiencing SUD are just trying to get through and survive that day, which means they are often not in a state of mind that allows them to focus on future goals. Developing the resilience necessary to seek recovery services may also be a lengthy process. One participant stated the following:

... And it's hard. It's an adjustment. And it takes time. And for some people, it takes a lot of time ... It's exhausting emotionally and physically at times (Male Participant)

Community

Culturally sensitive services were viewed as a means of cultural and community resilience to help people overcome SUD. Services such as talking circles, Red Road, smudging, and sweat lodges were viewed as mechanisms to reconnect people with their heritage and their Native identity. This reconnection motivated them to seek recovery. Participants also discussed the importance of having their Native communities support their recovery efforts by inviting them to participate in cultural events and celebrations even though they were experiencing homelessness.

Services available

Limited knowledge

Findings suggested that knowledge of service availability varied. While some participants talked extensively about their knowledge of available services, others did not know where to seek services, where agencies were located, or if agencies or treatment centers were open. Reasons for not accessing or seeking services include being geographically distant from treatment centers, lack of health literacy, lack of health insurance, lack of trust in providers, and lack of materials and resources to inform individuals of available services. Similarly, some people reported not knowing very much about what services were available overall.

... the resources are what's the hardest thing to find. They're either, you have to jump through a bunch of hoops, or they're hard to access, or you just don't know...So, it's kind of like a scavenger hunt for essentially your life, you know. You're trying to find that help. And it's taxing. (Male Participant)

Cultural sensitivity

Participants mentioned several AIAN specific services and agencies, although their awareness of them did not necessarily mean that they had sought services personally. Seven participants knew about Alcoholics Anonymous and Narcotics Anonymous; however, they stated that these services are not always aligned with their belief systems because they are Westernized approaches. Seven participants mentioned that they were aware of Red Road, while only four knew about Wellbriety. Red Road and Wellbriety are culturally based programs that structure services around AIAN belief systems and practices to help individuals recover from SUD, opioid use disorder (OUD), and stimulant use disorder (StUD).

Barriers accessing services

Internal barriers

Eleven out of 19 participants reported that they thought that lack of personal motivation was the primary internal barrier to seeking services among people experiencing SUD. Participants also stated that they were in denial about needing help or being dependent on substances, so they did not see a need to seek help. The shame of being homeless and the fear of being looked down upon because of not being clean was also listed as a barrier to accessing services.

External barriers

External barriers involved geographical distance and lack of transportation to recovery services. Participants also mentioned that many agencies required complete sobriety to participate in services, which was often difficult to achieve. For people who were experiencing homelessness, not having an address or a stable place where they could receive mail or be contacted was also an important barrier to care. Finally, participants discussed service wait times, which ranged from a few days to several weeks before they received support. Participants explained that treatment facilities were often restrictive with who they served and what services they offered, complicating the search for help even further. Given the low amount of funding and few AIAN specific organizations, there is competition for available resources to successfully place community members into programs and treatment centers. Participants will often seek non-AIAN specific services and agencies outside their local community due to the lack of services offered. Navigating these systems can pose additional barriers and exacerbate their situation as one participant's experience illustrates.

And it's a long process. I had 90 days clean by the time they had an opening. ... And also, not putting a limitation [on who can be served]. Most people that have a drug addiction most likely have a mental capacity. And if they have questions, have somebody on the other end that they can call, and not have to go through a huge phone system, and press 15 different extensions just to talk to a person, you know. You know, it's like I am putting in too much work, getting nowhere. (Male Participant)

COVID-19 barriers

The only participant interviewed during the pandemic stated "and then, I had finally got to go to inpatient rehab. But then, the COVID-19 thing happened. And so I had to just grin and bear it and do outpatient, because I wasn't going to put myself in a facility with 120 people that are also

from the street.” This participant reported that he reached out to AIAN-serving health centers to help him piece together a care plan and he had to take other precautions (e.g., giving up his car and not go out alone) to prevent relapsing.

Services needed

Continuum of care

There were many service needs identified by participants. A primary need was assistance meeting basic needs such as shelter, food, and showers. Participants also expressed a desire for receiving individualized mental health care to address self-medication. According to participants, a continuum of care and greater communication among providers are needed to improve service provision. Participants discussed the need in their communities for services that were a step down from rehabilitation or detox services and services located where drugs were not so readily available.

Greater connection

Participants reported a critical need for outreach in the streets to raise awareness and increase access to services for people experiencing homelessness. Participants experiencing homelessness also expressed a desire for providers to be more sensitive in their interactions with them given their SUD and the difficulties they were experiencing. Participants mentioned needing more support, wrap-around services, and encouragement and guidance to navigate the system. Participants stated that it is not sufficient to provide them with a list of resources because they often need people to “hold their hand” during this process and to provide clear steps to follow.

It takes a lot to call that person or call that number...When you walk into a hospital, because you need help, ... you're already looked down upon...you're looked at differently. ... If they could just come at you as a person in need, without being judgmental, that would go a lot further... [they say] here's where you can get resources.' Well, on that piece of paper, I didn't tell you, you need an I.D. You need your Social Security card. ...And then you show up at this place. You wait four hours for help. And they're like, “Oh, you didn't have this? ...Oh, I'm sorry. Come back when you do.” It's taking everything in my being to call you, because I need help now. In two weeks that person could either be dead. (Male Participant)

Cultural services

Participants highlighted the need for increased availability and variety of culturally sensitive services. For example, participants stated that using

medicinal herbs such as sage was very helpful during recovery, but not all treatment facilities offered it. Similarly, participants expressed interest in having medicine men be part of their treatment and most facilities did not have them available. AIAN ceremonies that incorporate songs and drumming were noted to be helpful as part of healing the spirit.

Discussion

The purpose of this study was to understand the potential risk factors that contribute to SUD and homelessness, resilience factors that help in SUD recovery seeking, knowledge of available services, and barriers and needs for SUD recovery services among AIANs experiencing homelessness. While conclusive statements regarding causal links between risk factors and outcomes cannot be made based on the qualitative inquiry in this study, our findings do provide perspectives from those with lived experience to inform knowledge about potential risk factors, substance use, and homelessness in AIAN individuals in California's urban settings.

Findings consistent with the Non-AIAN population

Many of our findings are consistent with the literature on the potential risk factors associated with SUD and homelessness among the general, or non-AIAN population. In our study, participants identified trauma, specifically around family separation or loss. The broader literature on individuals experiencing homelessness also documents that interruptions in the family structure, loss, poor family functioning, and family conflict contribute to SUD among individuals experiencing homelessness (Millburn et al., 2019; Shelton et al., 2009). Mental health disorders were also identified as a risk factor for SUD and homelessness by our participants, which is consistent with broader literature that suggests a link between mental health and SUD and homelessness (Narendorf et al., 2017; Shelton et al., 2009).

Multiple studies have documented that some people from diverse populations use substances to cope with depression and related mental health disorders (Narendorf et al., 2017; Quimby et al., 2012; Thornton et al., 2012). Additionally, for some individuals, the progression of mental disorders appears to drive the need for continuous self-medication in the absence of formal treatment and can contribute to the development of a SUD through negative reinforcement. Walters and colleagues (2002) proposed that substance use among AIANs is directly related to colonization experiences and related stressors and grief. Similarly, AIANs in our sample reported resorting to substance use as a means to cope.

Moreover, according to participants' communications, family history of substance use and ease of access to substances in their community contributed to the onset of their SUD. Previous studies suggest that environmental context plays a role in the development of SUD for AIANs and for non-AIANs (Dickerson & Johnson, 2012; Enoch & Albaugh, 2017). Our findings are also consistent with previous research on the non-AIAN population experiencing homelessness suggesting that, for some, living in an environment where peers and family members consume substances increases the risk of developing SUD because of conformity to these norms, and greater availability of alcohol and other substances (Linas et al., 2015; Meisel & Colder, 2019; Yule et al., 2018).

In addition to discussing multiple potential risk factors, participants also identified several challenges with seeking sobriety. Our participants expressed that personal motivation was required for individuals to start their path to recovery. This is a ubiquitous finding in the broader literature as well (Dillon et al., 2020; Elm et al., 2016; Gianotti-Avella, 2020; Gressler et al., 2019). Our participants also shared that not being ready (psychologically or emotionally) to make a change was a major barrier to seeking services (Dillon et al., 2020; Opsal et al., 2019). Similarly, participants stated that being in denial about their addiction was a challenge in the treatment seeking process. Not surprisingly, denial is a significant obstacle observed across many ethnic groups of people experiencing SUD (Dillon et al., 2020; Opsal et al., 2019). Previous research described that individuals' own perceptions of their degree of debility tend to dictate their treatment seeking (Dillon et al., 2020; Teesson et al., 2006). Additional findings from our study highlighted that, similar to individuals from other ethnic and racial backgrounds, perceived stigma is a significant barrier to seeking services. Participants described feeling judged because they were experiencing homelessness and reported feeling ashamed of being dirty and fearful of being looked down upon when seeking services. Internal challenges were not the only obstacles to recovery that participants shared.

Participants identified external challenges that were very similar to those experienced by individuals in the general population (Parast et al., 2019). Studies have found that limited knowledge about the availability of services is a significant impediment to receiving adequate care among homeless populations (Black et al., 2018; Paisi et al., 2019). For instance, a study on usage of drop-in center services among a diverse sample in a large metropolitan area found that 65% of service seekers learned about these types of services from peers rather than their local service agencies or treatment centers (Parast et al., 2019).

Our study findings are consistent with the general literature on the barriers to seeking and receiving services (Lamanna et al., 2018; O'Carroll

& Wainwright, 2019). These barriers include complete sobriety requirements, the need for a physical address and proper identification, transportation limitations, extended wait times, and lack of clarity about where services were located and which populations are served (Lamanna et al., 2018; O'Carroll & Wainwright, 2019). Our participants, like non-AIANs, reported experiencing barriers such as physical distance to services, and lengthy and complex service application processes (O'Carroll & Wainwright, 2019). These findings underscore a need for greater outreach to inform and invite individuals to diverse services and make them more readily available and accessible.

Findings unique to the AIAN population

Our results inform the literature on unique aspects that might contribute to SUD and homelessness among AIAN community members, with the most salient findings centered on historical trauma as a potential risk factor. Our participants discussed extensively how their experiences of historical trauma, loss of Native identity and cultural heritage contributed to the development of SUD. This is consistent with other AIAN studies on the role of historical trauma in contributing to inequities in social determinants of health, systemic racism and discrimination, and historical and contemporary experiences of trauma in Native communities (Probst & Ajmal, 2019; Whitesell et al., 2012). Frameworks, such as the Indigenist Stress-Coping Model have been developed to conceptualize the impact of risk factors (e.g., discrimination, traumatic life events, unresolved grief, and mourning) and protective factors (e.g., ethnic identity, traditional practices, and family/community support) on physical and mental health, as well as substance use outcomes (Gameon & Skewes, 2021). Research on scales assessing thoughts related to historical trauma (e.g., rumination about losses) has demonstrated that such thoughts increase risk for substance use as a means to cope with unresolved grief and anger (Myhra, 2011; Whitbeck et al., 2004).

Moreover, research indicates a higher prevalence of post-traumatic stress disorder (PTSD) among AIANs, which is correlated with elevated rates of SUD among this population (Brave Heart, 2003; Skewes & Blume, 2019; Whitesell et al., 2013). It is possible that the higher prevalence of PTSD related to proximal traumatic experiences in addition to historical trauma-related vulnerabilities in this population may increase the chances of AIANs developing SUD. Previous research on the non-AIAN population has documented that the occurrence of traumatic experiences are associated with homelessness and SUD because of a number of disturbances that

occur at the individual and interpersonal levels (Myhra, 2011; Paul et al., 2017). Just as multiple influences affecting SUD and homelessness were indicated, participants also discussed resilience-building qualities and the importance of cultural services in this process.

Participants affirmed that availability of AIAN culturally sensitive services and/or services that increased cultural connection were crucial for their recovery. The role of cultural practices in SUD recovery is well documented in the AIAN addiction literature (Brave Heart et al., 2011; Dickerson et al., 2021; Zeledon et al., 2020). Community resilience practices that were deemed essential both in this study and in the AIAN literature include the availability of sweat lodges, and opportunities to burn sage and talk with Elders (Dickerson et al., 2021; Marsh et al., 2018). AIANs differ significantly from non-AIANS due to the devastating colonization experiences and historical traumas many encountered and continue to experience (Brave Heart et al., 2011). Consequently, and in line with our participants' statements, specialized SUD treatment that incorporates and respects AIANs' cultural practices and healing approaches is warranted (Dickerson et al., 2021). Unlike non-AIANS, AIANs favor cultural adaptations (e.g., holding potluck meetings and different reservations hosting meetings) for Alcoholics Anonymous (AA) or Narcotics Anonymous (NA) (Native American Indian General Service Office, 2018). Although AA and NA may be effective in their original formats for most individuals in the general population (Kaskutas, 2009), this may not hold true for AIANs.

Our findings are also unique to the AIAN population in that they provide insight about participants' knowledge of the availability of culturally sensitive SUD services. Nearly half of participants reported that Indian Health Services and AIAN clinics offer helpful treatment resources for them. Additionally, less than half of participants mentioned Wellbriety and Red Road- two culturally based recovery services. The limited awareness of the availability of these services is a considerable concern for the AIAN homeless population because many do not have telephone or internet access to research and gather this information on their own. Another unique finding for this population was that individuals who experience homelessness on reservations experience even greater hardships in accessing services due to restricted availability of diverse services, extended geographical distances, and limited specialized providers to treat SUD and comorbid disorders.

Implications

The findings indicated that the AIAN population experiences significant needs and barriers to seeking and accessing SUD treatment services. The

following recommendations for policy makers and other stakeholders were developed based on participants' discussions. The first recommendation was to address service needs at the individual level by offering a continuum of care that supports AIANs at every step of the recovery process (e.g., offering transitional housing and sober living facilities in addition to basic treatment). The second was to increase availability and access to harm reduction services for AIANs. Increasing SUD education and awareness about treatment options and expanding access to treatment services were the third and fourth recommendations. The fifth recommendation was to increase the availability of culturally centered recovery services and programs.

These findings also underscore the need to invest in preventing initial homelessness by ensuring that individuals do not leave foster care without first having a home, and that returning veterans also have a place to live, for example (Flaming et al., 2015). Expanding re-housing programs can also help support individuals who may be in crisis and at risk of losing housing by providing housing subsidies. A study found that nearly 93% of families who participated in these types of programs kept their housing after the program ended (Flaming et al., 2015). Of course, permanent solutions are warranted, and policy initiatives can focus on building permanent housing solutions for those who require greater levels of support (Flaming et al., 2015).

Study limitations

There are limitations of this study that should be considered when interpreting findings. The sample size was small and the data was collected at only one time point. The inter-relationships between potential risk factors, homelessness, and substance use are complex. These relationships could be explained by various causal pathways that only longitudinal and quasi-experimental designs would be able to accurately elucidate. Another limitation is the retrospective nature of the data as participants' recollections may not be completely accurate and there is potential for biased reporting based on social desirability and other factors (Althubaiti, 2016).

Additionally, the perspectives shared only came from individuals living in California and experiencing homelessness and SUD in this region of the country. Our snowball sampling strategy also limits the generalizability of these findings. The participants' experiences may not be representative of all AIAN communities or even of all AIAN within a specific community, and thus, findings cannot be broadly generalized. Another limitation is our self-selected sample whereby those people who agreed to participate were more inclined to share their experiences and perspectives with

researchers, representing a subset of the population. The self-selected nature of the sample also means that participants who were actively seeking recovery services were the ones who registered for the study. These individuals were, or had, received services for SUD and/or housing support. As such, they could have differed significantly to others who were not reached or declined to participate.

Another factor that potentially limits the generalizability of the findings is that the cost of living in California is considerably higher than other areas in the U.S. (Taylor, 2015) and this may influence the incidence and prevalence of homelessness in this state. In 2020, California ranked fourth among U.S. states with the highest number of individuals experiencing homelessness (Statista, 2021). The reported homelessness rate in California is 40.9 per 100,000 (Statista, 2021). Hence, living in California can be considerably different than living in other parts of the country. Results may not be generalizable to individuals living in other states.

Future research

Increasing the sample size and diverse representation of homeless populations in future research would be helpful to improve the representativeness of findings. Future research may also benefit from more active and expansive recruiting strategies once COVID-19 restrictions ease. For instance, outreaching near homeless shelters and other areas where the population congregates could help obtain a larger sample. Longitudinal studies could also provide greater insight into the association between homelessness and substance use. Diversifying the sample would also improve research findings' generalizability. Finally, incorporating innovative methodologies that could assist with real-time data collection, although significant planning and funding would be needed to make this a viable method for individuals experiencing homelessness.

Strengths

This project focused on an underserved and underrepresented population and addresses an important gap in the literature with this ethnic group. This study contributes to an understanding of the unique needs of an especially vulnerable population (AIAN homeless or housing insecure individuals struggling with SUD). The current findings can inform policy and improve resource allocation to improve SUD outcomes in this under-resourced population. Future research can further elucidate the unique vulnerabilities in AIANs experiencing homelessness or housing insecurity and

SUD to inform the development of SUD services to address risks and barriers more effectively in this population.

Conclusion

This study represents an initial step to address the complexity and intersectionality of AIANs experiencing homelessness while seeking services for SUD. It is critical that we better understand the potential risks, resiliencies, needs, and barriers in this population. The words provided by a participant convey a message that poignantly illustrates the need to dedicate effort and resources to helping these communities on their path to recovery:

Listen to them. If you don't have an answer for them directly at that moment, don't leave until you do, even if you have to make a few phone calls Give them a sense of hope. Be non-judgmental.... (Male Participant)

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