Hill M. Tribal Communities and Opioids (Review Article). SEEJPH 2022, posted: 26 July 2022. DOI: 10.11576/seejph-5767

REVIEW ARTICLE

Tribal Communities and Opioids

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Abstract

American Indians/ Alaskan Natives (AI/AN) experience overdose rates higher than any other ethnic/ racial group in the US. In recent decades the opioid epidemic has had a particularly negative impact on AI/AN populations. To respond effectively to this issue, it is vital to understand its root cause. A range of factors are responsible, with some dating back hundreds of years. The main factors are the impact of colonization and exclusion; forced migration to peripheral areas; forced removal of children and attempts at cultural genocide; poor social environments; poverty and unemployment; adverse childhood experiences; and inadequate and under-funded Federal health services. Particular blame can be attributed to the pharmaceutical industry and its active over-promotion of opioid use. A number of strategies for tackling this scourge are outlined.

Keywords: Tribal Communities, Opioids, North America, pharmaceutical industry

In 2015, American Indian and Alaskan Natives (AI/AN) had the highest drug overdose rates of any population in the United States (1). The opioid mortality rates from AI/AN populations have risen almost continuously for nearly two decades and are comparable to the mortality rates of non-Hispanic whites that are often cited as the highest ethnic or racial group (2). As we look at the data, experts believe that the AI/AN drug overdose rates may be underestimated by as much as 35% due to race, ethnicity, and misclassification on death certificates (1).

According to the Northwest Portland Area Indian Health Board, the death rate from drug overdose among American Indian & Alaska Natives (AI/AN) in Washington State was 43.1 per 100,000 people in 2016 (3). This rate was almost 3 times the national AI/AN rate and the Washington State average. While the overall overdose death rate in Washington state has remained relatively stable since 2007, the rates for AI/AN in Washington has increased 36% since 2012, and almost 300% since 2000. In terms of polysubstance deaths of AI/AN in Washington State in 2014-16, almost half of the drug overdose deaths involved more than one drug, and a third involved more than one opioid. Common combinations included deaths involving cocaine and an opioid. In 74% of deaths from overdose the deceased had used a deadly combination of cocaine and opioids (3). Moreover, 59% of deaths involving Methamphetamine ('Meth') involved an opioid, and 17% of deaths involving heroin also involved a prescription opioid (3).

What are the underlying causes of this disproportionate impact of opioid abuse and substance abuse on AI/AN? In our tribal communities we know the reasons why tribal people struggle with substance abuse and particularly opioids. The United States government inflicted colonization and federal Indian policies that were devastating to tribal communities. Brave Heart and Debruyn discuss how the U.S. government enacted a range of punitive policies such as: removing native children from native homes to boarding schools; forced assimilation through relocation to urban centers; and termination of tribal governments (4). All such policies have had long lasting negative impacts on American Indians and disrupted tribal family systems. For American Indians the United States was the 'perpetrator' of their holocaust (4). AI/AN continue to deal with historical trauma and loss of culture which lends itself to substance abuse disorders. Unresolved historical grief and trauma that '...contributes to the current social pathology of high rates of suicide, homocide, domestic violence, child abuse, alcoholism, and other social problems among American Indians' (4).

These government inflicted policies have placed tribal communities in disadvantaged circumstances such as the geographic location of American Indian reservations. The European white settlers moved onto and claimed the most fertile lands, and reservations were created in remote, geographically less viable locations. Leonard, Parker and Anderson found that land designations were not randomly selected and instead were chosen to avoid conveying highvalue agricultural land to Native Americans (5). This contributes to high rates of poverty, unemployment and lack of opportunity (6).

AI/AN still struggle to gain a foothold in mainstream America. Although some members of tribal communities successfully navigate society and gain education and employment, many members still struggle. According to a recent survey by Adamsen et al. one-in-four AI/ANs live in poverty, and tribal communities report the lowest

employment rate nationally (7). The policies of the United States government such as boarding schools and welfare systems that continued to remove children from AI/AN homes until the late 1970s were particularly hard on tribal families and disrupted family systems of child rearing. Native American children were forced to go to boarding schools, AI/AN culture was seen as a problem and the purpose of these schools was forced assimilation (4) As a result of forced assimilation and relocation, we have broken families that often lead to relationship difficulties. The Federal Governments's Indian policies disrupted tribal cultural systems, took children away from their families, and often resulted in historical trauma, leading to an increased prevalence of substance abuse. Why are there higher rates of substance use disorders (SUD) amongst AI populations? Brave Heart & DeBruyn unequivocally outline the causes as '...an outcome of internalized aggression, internalized oppression, and unresolved grief and trauma' (4).

There are many root causes of substance abuse disorders and all tribal communities are different, depending on their history, location and resources. However, one leading cause is our social environment: social influences; peer influence; social policies; availability of illicit substances; and family systems. In much of the country, the counties with the lowest levels of social capital have the highest overdose rates (8).

These are all mechanisms that are responsible for the adoption maintenance and maintenance of addictions in our communities. We also see in our tribal communities that our young people start alcohol and substance abuse at a relatively young age. Swaim and Stanley note that early initiation for American Indian youths include increasing rates of use in early and later adulthood, higher risk of developing a substance use disorder (9). For our tribal communities, social influence, our families, our cousins and friends, are very powerful influences.

Another indicator of substance abuse are Adverse Childhood Experience (ACEs), such as exposure to alcoholism, drug abuse, domestic violence, emotional neglect, incarceration of a parent, physical or sexual abuse (10). Toxic stress from ACEs can change brain development and affect how body responds to stress and are linked to substance misuse in adulthood (11). These Adverse childhood experiences lead to higher risk of addiction. Again, many of these issues can be traced back to lack of control, and lower levels of certainty, as a result of government policies that dominated the lives of American Indians and Alaskan Natives. As a result of loss of ancestral lands and loss of cultural identity, we often see that life on reservations can result in dire poverty and hopelessness (12). Decker discusses the chaos of many American Indian families that can lead to addiction, mental health issues, domestic violence and suicide (12). These issues are passed from generation to generation, leading to an intense need to escape the pain and loss. Often substances provide an escape by numbing the pain (12).

Opioids have been described as providing an escape and a euphoria that washes over you, taking away both physical and emotional pain (13). Opioids disrupt the natural reward system by flooding the brain with large amounts of dopamine. When people are addicted to opioids and do not have the opiates, they experience uncontrollable cravings which persists even after they stop taking the opioid (13,14) Opioid drugs target the brain's pleasure center, where we have a natural source of dopamine. This is usually triggered by things that we enjoy such as

food, sex or music; 'dopamine triggers a surge of happiness. When the dopamine rolls into amygdala, the brain's fear center, it relieves anxiety and stress. Both of these events reinforce the idea that opioids are rewarding' (15). It has been described to this author as being like 'fireworks going off'.

How does opioid abuse start? Prescription painkillers like hydrocodone, oxycodone, Percocet, Vicodin, morphine, codeine, and fentanyl are all substances that have been overprescribed by doctors and led to dependency and abuse (16) For tribal elders, perhaps they were prescribed oxycodone after a heart attack, such as in my dad's case. For younger people, like my nephew in his 20s, the first time they were prescribed opiates may have been after a simple dental procedure. We know that pharmaceutical companies were marketing the right to be pain free. Purdue Pharma's sales reps 'fanned out to evangelized doctors and dentists with a message: Prescribing OxyContin for pain was the moral, responsible and compassionate thing to do' (17). Drug companies targeted primary care doctors and ads promoted long-term pain relief. They falsely stated that the risk of addiction was rare. Purdue Pharma's David Haddox claimed that OxyContin was safe with addiction rates less that 1 percent (17). Prescribing doctors were encouraged to use pain as the fifth vital sign and seek to improve pain management (17,18). This led to a dramatic overprescribing of pain pills (17).

Often expensive surgeries that are needed by tribal members are not funded by the Indian Health Service (HIS), and hence people have little alternative but to mask their pain with opioids. American Indian tribes ceded their lands to the United States government with two primary promises: healthcare and education (4). By ceding their land they essentially prepaid for their healthcare. The United States government has a legal obligation to provide health services for Native people. This obligation is the result of treaties between the Federal government and Native nations, as well as federal statute (19).

However, the Indian Health Service (IHS) is never adequately funded. Many the specialized healthcare needs and surgeries needed are not funded and people have little option therefore but to mask their pain and discomfort with medications, such as opioids. Opioids are also more likely to be prescribed in counties with more uninsured people (20), and those that have insurance may find that prescription narcotics are more reliably covered than other medical interventions (21). In the US surgery is often considered too costly for economically depressed and low density populations (22). Insurance companies often disapprove medical procedures and approved prescribed pain medications.

Compounding these factors, Indian Health Clinics are severely underfunded (19). Tribal clinics are placed on Priority One status which means you can only get coverage for a procedure only when life and limb are at immediate risk. This means when local IHS facilities cannot provide needed services for patients, they may contract out to private health care centers through the Contract Health Services (CHS) program. It should be noted that only American Indians who live on the reservation are eligible for Contract Health Services. Sick or injured patients with Contract Health who are not covered for treatment of the cause of pain instead receive options to manage it, and are often prescribed opioids.

Indian Health Service physicians, like many American physicians, were also sold the right to be 'pain free' concept, and thus readily dispensed opioid prescriptions to patients. In

Indian Country it is cheaper to prescribe pain pills than to get the necessary surgery for a back injury or a knee injury. We see opioid significant levels of misuse in rural areas. Health care challenges are compounded due to a shortage of primary care providers and thus opioids are again prescribed more commonly in rural areas (18,19,22,23).

As well as the impact of social environments, the impacts of genetics and physiology on addiction cannot be ignored. The role of genetics is clear in alcoholism is clear. There is a higher risk ratio for individuals when a high number of their relatives have alcohol abuse issues. (24).

Other traditional markers that we consider in looking at substance abuse are severity and tolerance. The need for more of the substance is an indicator that there is a problem. You need more of the substance to get the same affect. A commonly used term for opioid withdrawal is 'Dopesick' (17). One US law firm filing a class action stated 'long-term opioid use changes the way nerve cells work in the brain. Opioids create artificial endorphins in the brain, which bind the brain's opioid receptors producing euphoric effects and providing pain relief. Opioids trick the brain into stopping production of endorphins. When this happens, users experience excruciating withdrawal symptoms' (25) . An addict will tell us that the physiological pain of not having the pills is unbearable and leads to intense drug seeking behavior. In opiate withdrawal, when a dose is not taken, the body experiences painful symptoms such as vomiting, sweating, nausea, runny nose, dilated pupils, watery eyes, anxiety, insomnia, physical pain and constipation (26).

What does the opioid do to your body? It has many effects and is similar to heroin or the morphine molecule, especially when taken in ways other than prescribed by the doctor. Opioid pills can be melted down, smoked, or injected intravenously. Many addicts started by snorting the pills, before moving on to 'routinely injecting the liquified crushed-up powder with livestock syringes they bought (or stole) from local feed stores' (17).

There have been three waves of drug use in recent years; first, prescriptions like OxyContin became widespread and abused. Tribal leaders and health care providers became aware of the opioid abuse and began restrictive policies controlling prescriptions. They monitored opioid prescriptions via databases on nearby reservations and off-reservation (27). Second, once access and prescriptions were restricted addicts turned to illicit street drugs like heroin. Around 2013, there was an increase in synthetic opioids like Fentanyl. A particular danger with such drugs is that people can overdose when they start 'using' again after having experienced a period of abstinence, due to factors such as treatment or jail time (23).

How do we stop opioid abuse in tribal communities? (28) In my experience as a Tribal Attorney for 10 years, it often comes in the form of providing consequences to those abusing drugs. Consequences include going to jail, the removal of children, job loss, and being ordered to attend treatment. The hope is that once the addict is not using they will be able to detox and get out of the cycle of addiction and drug seeking behaviors. If abusers are not able to get out of the cycle of addiction they will likely end up in jail, or overdose, or end up dead. However, even when people want to get clean and sober the continuing challenges of finding employment, housing and accessing outpatient treatment programs can be significant barriers (28).

However, we are now seeing illicit opioids like heroin becoming more accessible. In Tribal communities, there are numerous stressors, including distress, sadness and

poverty. Our Tribal governments struggle to provide treatment that combines holistic Tribal cultural healing practices, alongside western biomedical science and treatment grounded in evidence-based practices.

The social determinants of addiction are significant and include: economic opportunity; poverty level; substance availability; genetic predisposition; mental health condition;self-image; substance use among family and friends; family conflict/abuse; and level of supervision. It is an unfortunate reality that all of these factors are significant issues in tribal communities (29,30).

The environmental factors of stress, trauma and pain often lead to experimentation with opioids, and later to cycles of dependence. Tribal governments, like states, counties and cities have expended millions of dollars of precious resources towards addressing the opioid epidemic. As Judge Polster, of N.D. Ohio Federal District Court stated 'everyone shares some of the responsibility, and no one has done enough to abate it. This includes the manufacturers, the distributors, the pharmacies, the doctors, the federal government and the state government, local governments and hospitals' (31).

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