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Diversity Goals for Evaluation and Treatment of American Indians and Alaska Natives

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Continuing Education Activity

American Indians and Alaska Natives form a heterogeneous population with widely diverse cultures, languages, history, art forms, religious and spiritual beliefs, and traditional practices. Although great resilience exists among this population, the legacy of colonialism, a history of genocidal practices, and intergenerational trauma have led to extreme health disparities. This activity reviews the evaluation and treatment of American Indians and Alaska Natives through a structurally competent lens and highlights opportunities for intervention at the individual, community, and structural levels to promote health and health care equity.

Objectives:

- Summarize the etiology of chronic disease among the American Indian and Alaska Native populations.
- Outline the influence of upstream structures on American Indian and Alaska Native population health.
- Explain the importance of providing contextually tailored, culturally sensitive, strength-based care to American Indian and Alaska Native patients.
- Review the role of the interprofessional team for patients with a history of intergenerational trauma.

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Introduction

American Indians and Alaska Natives, also known as Native Americans and Indigenous Americans, represent 574 federally recognized Indian Nations, also called First Nations and sometimes referred to as tribes. Each Nation is unique with its own history, culture, and spiritual and traditional practices.

Through treaties and executive orders, American Indian and Alaska Native (AIAN) Nations have been guaranteed a variety of services by the United States, including health care, education, and housing in exchange for tribal land and natural resources.[1] Despite the legal obligation, inequitable social policies and practices, inadequate funding, and provider shortages have forced AIAN communities to face massive disparities in health.[2] As a result, AIANs are disproportionately affected by chronic mental and physical health conditions compared to the general U.S. population, and they have the lowest life expectancy of any racial/ ethnic group in the U.S.[3][4][5]

It is important to address the barriers to adequate health and social care that have led to lower life expectancy rates and devastating disparities in health and health care delivery. This article will use a framework of structural competency

to identify root causes of health disparities and discuss potential opportunities for targeted interventions to effectively and appropriately evaluate and treat AIAN patients.

Issues of Concern

Though many AIAN communities have flourished, the legacy of colonialism and ongoing inequities continue to impact some AIANs' health negatively. There is a complex interplay of factors contributing to this. A history of genocidal policies, forced assimilation, broken treaties, systemic racism, and other forms of discrimination have led to disparities in social determinants of health.[6][7] As a result, in comparison to the general U.S. population, AIANs have fewer educational and employment opportunities and increased exposure to environmental risks. They are also more likely to experience poverty, adverse childhood experiences (ACEs), and be underinsured or uninsured.[7] [8] These social determinants of health contribute to the disparities seen in the health and health care of AIAN populations. Challenging encounters in clinical settings that include bias, microaggressions, and a lack of understanding of cultural health beliefs have further exacerbated the problem and led to an increased distrust of Western medicine in AIAN communities.[9] The culmination of these factors has led to higher mortality rates from heart disease, cancer, diabetes, stroke, chronic liver disease, and kidney disease in the AIAN population compared to the general U.S population.[10]

To address the barriers to adequate health care access that have led to the disproportionate burden of illness amongst AIAN people and lower life expectancy rates, it is important to review the structures from which these health disparities have emerged.

Structural Competency

Research indicates social inequalities lead to poor health outcomes in marginalized communities.[6] A variety of factors, including food insecurity, lack of access to healthcare, job insecurity, income inequality, housing differences, and more, have been implicated to explain the higher morbidity and mortality rates in certain populations. [11] However, simply looking at these as the cause of illness lacks necessary context and risks mistakenly attributing health disparities to the behavior, culture, or innate characteristics of certain individuals or groups of people.[6] Social determinants of health are a result of long-standing social arrangements embedded in the political and economic organizations of our society, causing disparate access to resources and, consequently, significant harm to certain groups of people.[12] These forces embody the structural violence in minorities, including AIANs, and, ultimately, result in health and health care disparities. Therefore, to appropriately evaluate and treat AIANs in the clinical setting, it is vital to approach disease and the experience of illness through a structurally competent lens.

Using a framework of structural competency enables healthcare providers to recognize the historical and contemporary drivers of upstream factors, such as social, political, and economic structures, that impact patients' health and wellbeing. Similarly, structural violence helps underscore how upstream structural inequalities lead to emotional and physical suffering. Seeing social determinants of health within a broader context provides opportunities for intervention at the individual, community, and structural levels to promote health. It is crucial to employ interventions at all three levels to successfully achieve health equity.

Historical & Sociopolitical Context

Understanding the historical events that influence AIAN communities is necessary for evaluating and treating AIAN patients. Knowing the history of genocidal practices, forced relocation, and forced assimilation experienced by AIAN communities helps contextualize the health disparities faced by some today.

Many AIAN individuals have familial histories of forced relocation and restriction to reservations. A few examples of these include the Navajo Long Walk of 1864, which forced 8,000 Navajos to a military concentration camp, the Cherokee "Trail of Tears" in 1838, which forced the Cherokee out of their homelands; and the General Allotment Act

of 1887 (continued through the 1960s) which led to the termination of more than 100 Indian Nations and widespread land seizure.

The forced relocation to reservations and seizure of land and natural resources restricted access to traditional food sources through hunting, gathering, fishing, and farming. This resulted in AIAN communities becoming increasingly reliant on the Food Distribution Program on Indian Reservations. This program, which the U.S. Department of Agriculture developed, provides canned and packed food that is high in sugar and fat content.[13] These nutrient-deficient meals have been associated with the high prevalence of obesity, diabetes, and hypertension seen amongst AIANs today.[14][8][15]

Forced assimilation practices were prevalent throughout history as well. In 1883 the “Code of Indian Offences” was established to outlaw many traditional AIAN practices, and these policies remained in effect until 1934. During this time, AIAN people who continued to practice their traditions risked being incarcerated.[5] Around the same time, the Bureau of Indian Affairs started forcibly removing children from their homes and placing them in federally operated boarding schools, where they were punished for speaking their own language.[16][17] Some of these children were removed from their families for many years, some never returned home, and some died from disease and homesickness at the boarding schools.[16]

Forced assimilation attempted to eradicate AIAN traditions and culture and led to the loss of language, culture, land, resources, community, and loved ones. Research indicates the experience of these historical losses is associated with some physical and mental health conditions.[17][16] Specifically, numerous studies suggest historical trauma is driving the high incidence rate of mental health disorders and substance use disorders in AIAN populations.[18][19][20] Initial research suggests trauma experienced by ancestral generations is correlated with a heightened psychological stress response to life events among some AIANs today.[21] This predisposes individuals to multiple health conditions. It's worth noting, research across other groups has demonstrated social support can reduce the psychological stress response to life events.[22][23] This suggests interventions made at structural and community levels to increase social support can lead to a decreased psychological stress response rate and help improve health outcomes. Further research is necessary to better understand the relationship between historical loss and its impact on the psychological stress response and the role of social support as a potential remedy.

In general, it is well established that trauma experienced by one generation impacts the developmental experience of future generations and is therefore associated with adverse health outcomes in future generations.[24] One proposed pathway for this phenomenon is that historical trauma may induce epigenetic modifications during prenatal and postnatal periods, leading to transgenerational stress inheritance and ultimately contributing to the development of poor health.[25][26] Since epigenetic modifications are typically reversible, it's possible that potential interventions and changes to social structures could undo epigenetic effects elicited by historical trauma and help address health disparities. More research is necessary to understand better the biological impact of historical trauma in AIAN populations to develop appropriate intervention strategies.

Environmental Risk Factors

Upstream sociopolitical factors have also led to environmental injustice and contribute to health disparities today. An example that highlights this is the impact of abandoned uranium mines on the health of AIANs living near them.

Treaties between AIAN Nations and the U.S. government designated certain regions as Tribal “Reservations” and gave tribes sovereign status to self-govern. However, as mineral resources were identified on tribal land, laws like the General Mining Law of 1872 gave the U.S. government power to acquire the land and allow mining companies to extract minerals from them. The disregard for the legal and ethical obligations set forth by treaties led to extensive mining of various metals, including uranium, on AIAN land.

From 1944 to 1986, mining companies extracted 10 million tons of uranium from Navajo land, allowing the U.S. Energy Department to stockpile this heavy metal during the Cold War.[27] As the need for uranium declined, 520

uranium mines, 4 uranium mills, and over 1100 waste sites were abandoned in Navajo Nation alone. This practice led to direct contamination of tribal land as well as contamination of water sources. Lack of regulation and waste management during and after the mining process also led to the construction of homes with contaminated material. The culmination of these factors has contributed to chronic exposure to uranium mine waste among Navajo people. This is associated with high rates of miscarriage and an increased likelihood of developing hypertension, diabetes, kidney disease, and other chronic health conditions.[28][29]

One study suggests the disproportionate rate of health conditions among Navajo people may be due to increased serum inflammatory potential induced by exposure to abandoned uranium mines. Specifically, in this study, they found a significant association between closer residential proximity to uranium waste sites and increased levels of vascular cell adhesion molecule-1, intracellular adhesion molecule-1, and chemokine ligand 2 among Navajo people.[30] These biomarkers promote vascular inflammation, contribute to atherosclerosis, and lead to chronic cardiovascular health conditions. Other studies have also demonstrated exposure to heavy metals can inhibit DNA-repair processes, lead to immune system dysfunction and make individuals more susceptible to disease.[31][32][33]

Unfortunately, uranium is only one out of many environmental pollutants leading to health disparities in AIAN populations. Native Nations have also been mined for gold, silver, lead, copper, vanadium, arsenic, manganese, iron, nickel, and more.[29] The resulting environmental exposure to several toxins is associated with numerous health conditions, including pulmonary and cardiovascular diseases, neurological disorders, chronic renal disease, and cancer.[34][35][36] This underscores the importance of addressing environmental risk factors on structural, community, and individual levels.

Structural-level interventions require policy changes addressing unethical practices permitted via laws like the General Mining Law of 1872 and holding mining companies responsible for the clean-up cost of waste sites. On a community level, it is important to partner with AIAN communities and work together to better understand the health impacts caused by toxin exposure and find appropriate solutions to address the adverse effects. On an individual level, providers must be sure to ask about exposure to these metals when working with AIAN populations and identifying individuals at risk of developing an illness due to the exposure.

Economic Structures: Lack of Funding & Shortage of Medical Personal

AIAN populations are, by law, born with a right to health care. Treaties made between the United States and AIAN Nations promised services, including health care services, in exchange for tribal land and natural resources.[2] The Indian Health Service (IHS), an agency within the U.S. Department of Health and Human Services, is primarily responsible for fulfilling treaty responsibilities and providing health care in AIAN communities. According to records, though, the IHS is primarily focused in rural areas, only serves about 2.56 million of the 5.2 million people who identify as AIAN, and is deeply underfunded by Congress. Of note, funding for IHS is lower than any other federal health care agency, including Medicaid, Medicare, and the Bureau of Prisons. Specifically, per capita spending on AIAN health care is 50% less than per capita spending for individuals in prison and Medicaid recipients and almost 75% less than what is allocated for Medicare beneficiaries.[37]

Ultimately, the lack of funding has resulted in under-sourced clinics, a lack of infrastructure development in clinics serving AIAN patients, and insufficiently competitive wages for those working at these clinics. These factors influence the high turnover rate for health professionals at these facilities and have led to an overall shortage of medical personal in AIAN communities. To fill in the gaps, IHS and tribal health care facilities contract temporary providers who have limited knowledge of the AIAN population (particularly the local population they serve) and are often not interested in staying long-term. This leads to chronic understaffing, poor continuity of care, and decreased access to care.[38][2] Increasing funding and providing sustainable staffing models in both IHS and tribally operated health care facilities can help address barriers to adequate health care access. The systematic underfunding and under-sourcing of IHS has directly contributed to significant inequities in health care delivery and health status for AIANs.

[39] To address health disparities and properly care for AIAN patients, it is vital to increase funding for health care services in AIAN communities.

Medical Marginalization & Mistrust

An important factor contributing to health disparities in AIAN communities is the mistrust of Western medicine and research generated by historical and contemporary instances of unethical practices. For example, from 1973-1976, involuntary sterilizations were performed on 3406 AI women aged 15 to 44 years. Even more recently, in 2003, members of the Havasupai Tribe discovered the DNA samples they had donated for a genetic research study on type II diabetes mellitus was used for other studies without their consent.[40][41] Their genetic samples were misused to study schizophrenia, ethnic migration, and population inbreeding, topics that are taboo in the Havasupai culture.[42][43]

Additionally, experiences of discrimination or unfair treatment in health care settings have left some AIAN patients feeling uncomfortable and unwelcomed in clinics. Many AIANs report feeling stereotyped, ignored, or disrespected by non-AIAN providers, and they are more likely than any other racial/ ethnic minority group in the U.S. to report discrimination as a barrier to health care.[44][45][46] Microaggressions towards AIAN patients also occur and contribute to dissatisfactory health care experiences. Differences in cultural practices, communication styles, values, and experiences between AIAN patients and providers impact what symptoms and pertinent information patients are comfortable sharing.[47] Ultimately, mistrust of health professionals, perceptions of discrimination, and culturally insensitive or irrelevant care results in underutilization of health care services and nonadherence to treatment plans that aren't tailored to patients' individual needs and strengths.[48][49][50]

The implications of unethical medical and research practices and experiences of discrimination in health care settings should be considered when providers are evaluating and treating AIAN populations. To overcome the mistrust cultivated, providers must learn about and respect the history and culture that are specific to the local AIAN population they work with. They should acknowledge the practices that may have led to mistrust and work to foster trusting relationships through dialogue and cultural humility. A significant effort must be made to address institutional racism and individual provider bias that contributes to discriminatory behavior towards AIAN patients.

Health professionals also need more education pertaining to AIAN cultures, especially the culture of the AIAN communities local to them and the social determinants of health impacting these communities. Through more education and the practice of cultural humility, they can work to better understand the personal and cultural health beliefs of their patients and provide culturally sensitive care that holds real value. Providers should ensure they use a strength-based instead of a deficit-based approach to care when treating patients. This means focusing on what a patient has that could improve health outcomes, such as strong social, spiritual, or family ties, rather than focusing on something a patient does not have access to.[2][11] This empowers patients and ensures they receive health recommendations that are actually attainable for them. Furthermore, it's important to address the cultural disconnect between traditional AIAN healing practices and conventional medicine by increasing care coordination between traditional Native healers and healthcare providers practicing Western medicine. Lastly, public health officials should work closely with AIAN community members to build trust and develop sustainable, locally-chosen, and culturally adaptive community-level interventions that are appropriate and relevant to the population they serve.[14]

Lack of Diversity & Training Gaps in Academic Health Centers

AIANs are underrepresented among health professionals, particularly among physicians.[51] There's also a shortage of health professionals with adequate knowledge of AIAN cultures, histories, and perspectives on medical care. [52] To ensure medical staff can effectively and appropriately evaluate and treat AIAN patients, academic health centers (AHCs) must increase the representation of AIAN students and medical personal, educate students on health inequities in AIAN communities, and train future physicians who can provide contextually tailored care to people

across cultures.[2] The latter two can be accomplished through curriculum changes that include courses on AIAN history, culture and health, and opportunities for experiential learning.

Educational partnerships among AHCs, IHS, and tribal health care facilities can provide trainees supervised hands-on experience in caring for AIAN communities. Experiential learning through direct exposure can help increase awareness of health disparities and encourage more trainees to work towards addressing the health inequities experienced by AIAN populations. Additionally, consistent, positive interactions between health professional trainees and AIAN community members can foster better relationships, address the history of mistrust caused by structural violence, and help address provider bias. These educational opportunities also allow students to learn about AIAN culture, Indigenous healing, traditional medical practices, and tribal health interventions from AIAN individuals directly. This is beneficial and will allow trainees to be more culturally sensitive when evaluating and treating AIAN patients. Importantly, working with and learning from AIAN community members directly exposes trainees to community-driven solutions for improving health care and helps them recognize the particular community's self-identified strengths.

Clinical Significance

As summarized above, a legacy of injustice and discrimination has shaped contemporary health and social disparities. The significant historical loss and trauma experienced by some AIAN communities has led to intergenerational harm and may account for the disproportionate prevalence of numerous health conditions and higher mortality rates among AIANs.[3][4]

Morbidity Disparity Rates

Health disparities emerge for AIANs beginning from early childhood. Overall, there's a greater prevalence of fetal alcohol spectrum disorders among AIAN children when compared to children in the general U.S. population.[53] They are also twice as likely to be overweight, three times as likely to be obese, and three times more likely to have untreated dental decay.[54][55] Compared to the general U.S. adolescent population, AIAN adolescents are more likely to be diagnosed with substance use disorders, disruptive behavior disorders, mood disorders, and attention deficit–hyperactivity disorder.[56]

Compared to the general U.S. population, AIAN adults are more likely to experience alcohol dependence and substance use disorder and twice as likely to experience posttraumatic stress disorder.[57] Compared to the non-Hispanic white population, there's a greater prevalence of mood disorders, anxiety disorders, personality disorders, panic disorder, and drug dependence in the AIAN population.[58] Furthermore, AIANs are more likely than white Americans to have coronary artery disease and high blood pressure and two times more likely than the general U.S. population to have diabetes. There are also higher incidence rates of certain cancers such as kidney, liver, gallbladder, and stomach cancer among the AIAN population compared to the non-Hispanic white population in the U.S.[59]

Mortality Disparity Rates

Disparities in mortality rates emerge in infancy and continue throughout development for AIAN populations. Rates of inadequate prenatal care and post-natal death are more than two times higher for AIAN infants than the general U.S. infant population.[60] AIAN infants are more likely to die from sudden infant death syndrome, pneumonia and influenza, accidents, and homicide.[57] AIAN children between 1 and 4 years old have three times the death rate of children in the general population. AIAN youth are two times more likely to experience an injury-related death due to motor vehicle accidents, pedestrian events, and suicide compared to the general U.S. population.[57] More recent reports estimate AIAN adolescent (15 to 24 years old) suicide rates are four times greater than non-Hispanic white adolescent suicide rates.[56]

There are devastatingly high death rates among AIAN adults as well. Compared to the general U.S. population, AIAN adults continue to die at higher rates from several conditions.[4][61] This includes:

- Heart disease
- Accidents/ unintentional injuries (ex. motor vehicle injuries)
- Diabetes mellitus
- Alcohol consumption
- Chronic lower respiratory disease
- Cerebrovascular disease (stroke)
- Chronic liver disease and cirrhosis
- Influenza and pneumonia
- Nephritis, nephrotic syndrome
- Intentional self-harm/ suicide
- Septicemia
- Assault (homicide)
- Essential hypertension diseases

Clinical Implications of Significant Health Disparities

These massive health disparities demonstrate a public health crisis that must be attended to urgently. Clinicians should consider several issues when serving AIAN populations to evaluate and treat their patients effectively. First, they should keep in mind the social, political, and economic factors that contribute to disparities in social determinants of health in AIAN communities. They should also consider the historical and contemporary stressors that impact AIANs. Next, they should practice cultural humility and reflect on their own biases and beliefs while actively learning about their patients' cultural and individual attitudes towards health and illness. Finally, providers should incorporate each AIAN patient's unique personal and cultural strengths to develop context-specific interventions.[58]

Enhancing Healthcare Team Outcomes

Dismantling health disparities faced by many AIANs and enhancing healthcare team outcomes requires a multifaceted approach. Strategies that can work to accomplish this include:

- Approach the care of AIAN patients through a structurally competent lens.
- Consider the historical and sociopolitical context that drives health disparities among AIAN populations.
- Recognize AIAN community-specific social determinants of health.
- Improve health professionals' understanding of historical, cultural, and spiritual factors that influence AIAN health.
- Appreciate the vast diversity that exists among AIAN people and Nations.
- Address the distrust of Western medicine in AIAN communities caused by a centuries-old legacy of discrimination.
- Address provider bias, microaggressions, and individual and institutional racism experienced by AIANs today.
- Incorporate issues related to AIAN health care within the medical school curriculum.

- Ensure adequate representation of AIANs in health care by increasing the number of AIAN students in health professional schools.
- Strive for maximum tribal involvement in meeting the health needs of local AIAN populations.
- Increase coordination of care between traditional Native healers and health professionals practicing Western medicine
- Partner with AIAN community members to develop sustainable community-based interventions that integrate their culture, history, and inherent strengths into local health-based programs.
- Partner with AIAN communities and work together to understand better the health impacts caused by toxin exposure and find appropriate solutions to address the adverse effects.
- Inquire about environmental risk factors and exposure to pollutants and metals such as uranium, arsenic, lead, copper, vanadium, and manganese. Identify individuals who are at high risk of developing a health condition based on their exposure.
- Practice cultural humility and compassion in the clinical setting.
- Avoid stereotyping and encourage patients to share the cultural identity that is personal and unique to them.
- Explore each patient's health beliefs and factors influencing their decision-making to provide contextually tailored care.
- Use a strength-based instead of deficit-based approach to patient care.
- Appreciate tribal cultural and regional differences that impact the experience of illness for each patient.

Achieving these goals will allow health professionals to properly address health disparities, effectively evaluate and treat AIAN patients in clinical settings, and promote health equity.

Review Questions

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