Catching Up With COSSAP, February 2021

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Alcohol and/or drug use at a young age results in significant and long-lasting impacts on the developing brain and body. Early substance use is associated with numerous problematic outcomes that impact not only youth but also their peers, families, and communities. Most adults who meet the criteria for having a substance use disorder (SUD) started using substances before the age of 21. Although efforts have been made to improve the prevention and treatment of SUDs, rates of substance use and associated problem outcomes, including mortality, among American Indian/Alaska Native (AI/AN) communities remain higher than among non-AI/AN communities. This article focuses on the disproportionately detrimental impacts early substance use has on the developing brain and body, the

importance of preventing or delaying use, and protective factors specific to tribal communities that can reduce underaged substance use.

Why Focus on Tribal Communities?

Al/AN communities are a diverse and heterogenous group; when including those of more than one race, they number approximately five million people in the United States across 574 federally recognized tribes. A majority of Native Americans live in urban areas, and the population as a whole is relatively young compared with the U.S. average. Data shared in this article are drawn from Monitoring the Future (www.monitoringthefuture.org) and National Household Survey on Drug Abuse (NHSDA;

www.drugabusestatistics.samhsa.gov), both large-scale, national surveys conducted annually.



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Taking into account differences between tribes, AI/AN communities have higher rates of substance use disorders than other race groups. Three times as many Al/ANs are diagnosed with SUDs as white Americans.¹ Twice as many require treatment for addiction compared with any other racial and ethnic group, but fewer receive treatment compared with other racial groups. Tribal communities also have the highest rates of alcohol-related deaths as well as a higher opioid mortality rate than any other racial and ethnic group.² Youth-specific data are equally troubling. Nearly one in five Native American young adults (aged 18-25 years) has an SUD. Approximately four in ten Native American adolescents (aged 12-17 years) have a high lifetime incidence of illicit drug use. This group also has the highest rates of lifetime tobacco product use, marijuana use, nonmedical use of pain relievers, and nonmedical use of prescription medications.3

Why Prevent or Delay Use?

Youth experience disproportionate harm from substance use compared with adults, due to the stage of development of their brains and bodies. There are two distinct parts of the brain that develop and mature at different times. The limbic system, responsible for impulsivity, reward, and high emotion, develops and matures earlier than the frontal cortex, the part of the brain responsible for decision making,



judgement, and thinking through the consequences of actions. Because of this difference in maturation, youth are much more likely to engage in risky and impulsive behavior, such as substance use and are more vulnerable to the rewarding or reinforcing effects of substance use.

Further, this maturational difference limits teens' ability to accurately assess the risk of substance use as well as their ability to resist peer pressure.⁴ Although youth tend to use drugs less frequently than adults, when they do, they tend to binge. As our brains mature, they go through a process called pruning and strengthening, which determines which neural connections will be killed and which will survive. The process is based on which neural pathways are used most often. If a youth is engaged in substance use, unhealthy and potentially harmful pathways are reinforced and strengthened.

The resulting impact of substance use on the developing brain is significant and long-lasting. Substance use impacts the development of the frontal cortex, as well as the centers of the brain focused on mood regulation, motivation, learning, judgement, and impulse control. Given that the frontal cortex is not fully mature until the early to mid-20s, delaying substance use at least until then gives our brains the best chance at full development.

Why Is This Important?

Youth substance use is associated with increased risk for delinquency, academic underachievement, teenage pregnancy, sexually transmitted diseases, perpetrating or experiencing violence, injury, and mental health problems. Youth who use high-risk drugs are also more likely to engage in risky sexual behaviors (not using a condom, having multiple partners); experience violence, such as physical and sexual dating violence, and being bullied, threatened, or injured; and being at greater risk for mental health problems and suicide. ^{5,6} Delaying or preventing substance use not only reduces the direct negative impacts of substances, it also reduces the likelihood of collateral problematic outcomes that extend into adulthood.

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What Factors Increase the Risk of Problematic Substance Use?

Both biological and environmental factors can increase the likelihood of youth engaging in problematic substance use. Among the biological factors are genetics and stage of development. Environmental factors include a chaotic home environment, lack of parental support or structure, availability of drugs, and peer influences. Further, the age at which one initiates substance use, and the method of administration of the drug, can increase the risk of developing an addiction. The earlier in life one begins using substances, the more likely one is to develop an addiction. Smoking or injecting a drug also increases the likelihood of addiction because of the speed and intensity with which the drug enters the brain.⁷

What Factors Are Protective and Reduce the Risk of Problematic Substance Use?

Protective factors buffer the negative impacts of substance use or prevent an undesirable outcome. For the purposes of this article, we divide protective factors into three categories: individual, relational, and community. Each of these can work independently; therefore, it is up to the community to decide where to invest its attention and resources.

Community-oriented protective factors:8

- Availability of alternative positive opportunities
- Organized group activities
- Religious/spiritual activities
- Cultural involvement
- Cultural connectedness.

Relationship-oriented protective factors:

- Stable, supportive relationship with a nonfamilial adult
- Connectedness to school
- Family connectedness
- Stable and supportive relationships with parents or caregiver

Individual-oriented protective factors:

- Current and future aspirations
- Personal wellness as a balance among the intertwined mind, body, soul, and spirit
- Self-efficacy
- Bicultural competence, responsiveness to cultural cues in context, and ability to navigate harmful situations⁹
- Positive coping skills

What Can I Do Today?

Support healthy risk-taking

- Provide healthy options: sports, creative arts, new experiences, meeting new people, travel, performing on stage, running for office at school
- Model positive behavior
- Talk with a youth, share your values
- Develop deep social support systems
- Maintain a sense of family connectedness
- Monitor youths' progress, stay involved with them

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Talk and Listen

- Have frequent conversations
- Change the discussion from "right and wrong" to "not now"
- Equip youth with and practice refusal strategies
- Avoid sending mixed messages about alcohol
- Prepare youth for substance-related emergencies

Establish Rules

- Develop rules regarding alcohol/drugs use
- Develop alternatives; have clear expectations for each behavior
- Set definite consequences for violation of these rules
- · Catch youth doing things right
- Apply consequences when the rules are not followed

As a Practitioner

- Brainstorm culturally congruent ideas
- Reinforce confidentiality and its limits
- Recognize the impact of historical trauma
- Make having a trauma-informed lens a standard part of treatment
- Integrate tribal cultural and traditional spiritual activities
- Provide support for ancillary needs
- Engage family and tribal community members



Conclusion

Early substance use has a significant and long-lasting impact on the developing brain and body, resulting in far-reaching negative consequences for youth, their families, peers, and the community. However, much can be done to either prevent or delay substance use to reduce its impacts. Tribal communities inherently have strong protective factors that boost prevention efforts, including strength in community, a deep cultural identity, connectedness, and an emphasis on holistic wellness. Leaning on these protective factors will enhance communities' ability to further strengthen individual and familial protective factors that can prevent substance use and mitigate the negative outcomes associated with substance use.

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Endnotes

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