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### Authors

Porche, Michelle

Fortuna, Lisa

Tolou-Shams, Marina

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## Unpacking the Layers:

### Dismantling Inequities in Substance Use Services and Outcomes for Racially Minoritized Adolescents

Michelle V. Porche, EdD<sup>a,\*</sup>, Lisa R. Fortuna, MD, MPH, MDiv<sup>b</sup>, Marina Tolou-Shams, PhD<sup>c</sup>

<sup>a</sup>Department of Psychiatry and Behavioral Sciences, Zuckerberg San Francisco General Hospital and Trauma Center, University of California, San Francisco (UCSF), 1001 Potrero Avenue, Building 5, Room 7M, San Francisco, CA, USA

<sup>b</sup>Department of Psychiatry and Behavioral Sciences, Zuckerberg San Francisco General Hospital and Trauma Center, University of California, San Francisco, 1001 Potrero Avenue, Building 5, Room 7M16, San Francisco, CA, USA

<sup>c</sup>Department of Psychiatry and Behavioral Sciences, Zuckerberg San Francisco General Hospital and Trauma Center, University of California, San Francisco, 1001 Potrero Avenue, Building 5, Room 7M18, San Francisco, CA 94110, USA

#### Keywords

Substance use disorders; Access to care; Disparities; Black, Latinx, and American Indian youth; Youth of color; Systems of care

## BACKGROUND

Substance use problems remain a significant public health concern for minoritized youth. Our review emphasizes the urgency of addressing service gaps, given that youth of color who have substance use disorders (SUD) and mental health disorders before age 18 have worse education, employment, and social outcomes than those with later onset or no SUD<sup>1,2</sup> Although youth of color are not more likely to suffer a SUD, as compared with their White counterparts, those that do are less likely to receive treatment services in the community, and more likely to be involved in the justice and/or child welfare system. In this article, we review the existing literature on substance use services for adolescents and discuss implications for disparate outcomes by race, ethnicity, and gender. We reflect on the complex, intersectional layers of inequities, and recommend ways that child-serving systems can work toward improving SUD services for Black, Latinx, American Indian, and other youth of color. We describe data from the National Survey on Drug Use and Health (NSUDH) along with findings from other substance use treatment trials conducted with specific groups of minoritized youth, such as girls involved in the juvenile justice

\*Corresponding author. michelle.porche@ucsf.edu, Twitter: @michellevporche (M.V.P.). The first two authors contributed equally.

#### DISCLOSURE

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system. The NSUDH data provide the estimates of substance use and mental illness at the national, state, and substate levels. Substance use intervention trials with justice-involved girls provide insight into a particularly underserved population given that they represent a smaller subpopulation of youth in the justice system and services need to be designed for their specific needs, including intersectional identities as young women who are disproportionately Black, Latinx, and American Indian/Native Alaskan. The topic of efficacious substance use interventions for young people of color is overwhelmingly underaddressed in clinical services and research. A review of controlled treatment studies found that few studies intentionally considered differences in outcomes by race or ethnicity in their design and fewer conducted statistical tests of difference.<sup>3</sup>

Finally, the authors share promising approaches to improving prevention and treatment options for problematic substance use, including practical strategies for improving access and addressing social, structural, and cultural barriers to SUD services for the youth of color.

### **Social Determinants, Policies, and Substance Use Disorder Disparities**

There are several social determinants, which influence the course of SUD and with differential consequences for Black, Latinx, and other youth of color. The social and physical environments play an important role, in particular, to the risk for the development of SUD and appropriate access and quality of care for SUD in minoritized youth. For example, alcohol outlet (sales) density remains far greater in Black and Hispanic/Latinx neighborhoods than for majority White neighborhoods.<sup>4</sup> Social economic factors, including poverty, are important contributors to services disparities, as are cultural and structural barriers. Research shows that Black and American Indian clients are less likely to initiate or engage in treatment compared with non-Latino White clients.<sup>5</sup> American Indian clients living in economically disadvantaged communities are at even greater risk of not initiating treatment than their counterparts living in better-resourced communities.<sup>6</sup> The combination of these findings suggest that there is a lack of accessible, culturally appropriate substance use services for youth residing in primary communities of color.<sup>7</sup>

The epidemiologic data demonstrate differences in SUD services, need, use, and access by race and gender. Data from National Survey on Drug Use and Health, 2019 release, show that White youth have double the rate of outpatient treatment initiation as compared with Black youth (Table 1). Often entering into substance use treatment with greater severity of SUD symptoms and/or related consequences, youth of color experience more barriers to treatment engagement, completion, and are less satisfied with the care they receive than their White counterparts are.<sup>8,9</sup> Compared with non-Latino Whites with SUD, Black, and Latinx adolescents with SUD report receiving lesser quality and intensity of care.<sup>5</sup> In regard to overall access, White youth receive double the rate of outpatient treatment compared with Black youth. In a study of 664 youth receiving intensive case management, those with substance use were less likely to come from racial/ethnic minority groups.<sup>10</sup>

The lack of focus on evidence-based SUD prevention research in minoritized communities and lack of access to secondary prevention interventions such as overdose education and naltrexone distribution programs by the youth of color further contribute to disparities.<sup>11</sup> This includes: the lower availability of evidence-based treatment (particularly

buprenorphine), the unequal deployment of drug testing with markedly different consequences for minoritized youth when their test results are positive (ie, juvenile justice vs treatment; increased likelihood of being pushed out of the school system), and, markedly different rates of juvenile detention despite national survey data that suggest that minoritized youth use drugs at similar rates as White youth.

## **INTERSECTIONALITY OF RACE AND GENDER AND POPULATIONS WITHIN SETTINGS SUCH AS SCHOOLS**

An early systematic review of 46 studies found consistent associations between elevated use of substances and high school dropout, although the indicators for increased risk for Black and Latino youth were mixed.<sup>12</sup> Further research has investigated predictors of substance use as well as its explanatory power for understanding school outcomes. Childhood trauma was identified as a precursor to both conduct disorder and substance use, which acted as mediators of high school dropout for a national community sample; rates were highest for Latino youth, above the national average for Black youth, and lowest for Asian youth except for Southeast Asians that dropped out at similar rates to Latino students.<sup>13</sup> These results are illustrative of the heterogeneity of racial and ethnic categories. Importantly, 38% of this sample reported one or more major trauma experience, and 32% were identified as having one or more DSM-IV diagnosis (in use at the time of the study).<sup>13</sup> However, only 17% reported receiving any mental health services as a child. Data from youth in the Longitudinal Studies of Child Use and Neglect, which was comprised primarily of minoritized youth (54% Black, 6% Latino, 14% mixed race or other race), found direct links between the number of ACEs and dropout, and specifically that having a household member with substance use, as well as individual externalizing problems and peers that used substances, were also identified as risk factors for dropout.<sup>14</sup> These studies point to the need for school-based services that can address trauma and support or provide mental health treatment, while decreasing reliance on harsh punishment in response to substance use and externalizing symptoms.

With the pandemic came patterns of increased alcohol and cannabis use which was not only problematic for youth using substances in isolation but also increased risk for COVID-19 transmission when using with peers.<sup>15</sup> Schools, of which the majority were operating remotely during the pandemic, serve as important sites of social connection with peers, including increasing emphasis on the digital connection of texting.<sup>16</sup> Close relationships with parents and prosocial peers are protective for substance use, though increased risk for youth is associated with peers who engage in delinquency behaviors.<sup>17</sup> To better understand the sequence of use patterns, progression of risk behaviors and academic outcomes was illuminated through longitudinal analysis of the Add Health study that found that failing courses predicted later alcohol use, whereas alcohol use did not predict increased failure of coursework.<sup>18</sup>

Extracurricular activities have been found to be protective against adolescent substance use generally.<sup>19</sup> Research on American Indian adolescents found that higher perceived availability of activities and higher frequency and intensity of involvement were

associated with lower rates of substance use<sup>20</sup> indicating the importance of extracurricular opportunities in school settings and communities as prevention policy. Conversely, research about decision-making regarding drug use underscores the role of context for youth in determining which settings are more conducive to substance use.<sup>21</sup> A multi-level analysis including 34 schools in the mid-west found that students in schools with clear norms discouraging use and with higher proportions of Black and Latinx peers were less likely to use substances; these school setting characteristics also moderated the influence of substance-using peers.<sup>22</sup>

Investigation of adolescent perception of drugs as harmful or helpful is critical for prevention and intervention development. A study of sexual and gender individuals assigned female at birth found higher levels of alcohol and cannabis use correlated with minority stressors and higher rates of anxiety and depression symptoms.<sup>23</sup> A retrospective study of Puerto Rican prison inmates found a significant association between childhood symptoms of ADHD (though not necessarily a formal diagnosis) and lifetime and current SUD (often leading to sentencing), and comorbid anxiety, depression, or PTSD.<sup>24</sup> Analysis of historical trends for the Monitoring the Future Study from 1976 to 2019 found increasing rates of lifetime cannabis use for boys than girls and Black adolescents than other racial groups.<sup>25</sup> There is some speculation as to whether these increases are related to policy changes in legalization. Further research with adolescents would illuminate the onset of these beliefs and patterns.

## ILLUSTRATIVE VIGNETTE

We present a vignette based on a mixed-methods study of youth in an acute specialty care detoxification facility,<sup>26</sup> to show complex and multiple individual and structural risk factors for a 17-year-old Black girl in treatment of cannabis and tobacco dependency. By the time this adolescent girl entered a treatment facility she had been through eight foster care placements and multiple times in juvenile detention for “pot and behavior” and was at the time on probation for receiving stolen property. Black and Latinx families are disproportionately represented in Family and Children’s Services, and the family itself is less likely to receive support necessary to keep children from being separated from parents, often placing children on a detrimental path through the foster care system. These dual-status youth experience persistent complex trauma and systemic trauma while moving through child welfare and the justice system.<sup>27</sup> This is a teenager with little family support, racially isolated at a predominantly White school, and with few positive connections to adults. She describes some support from school, “they don’t know what’s going on... My French teacher [and the] class wrote a letter for me in French. It’s a small school, like 500 kids and I’m one of four Black girls.” Despite this positive attention and connection with her French teacher, no one notices that her drug use is affecting her academic engagement and achievement, “I always used to get high before school so... I’d be tired by like 4th period though, I’d be just wanting to go to sleep, lie down, smoke again.” Failed by multiple systems, she will likely age out of foster care with the continued need of trauma-focused treatment of addiction.

Gender socialization and social learning can influence risk behaviors, including the initiation and patterns of drug and alcohol use.<sup>28–31</sup> Specifically, research by Akers<sup>32</sup> on substance use focuses on the aspects of social learning that influence gender differences: including modeling (imitation), differential reinforcement (balance of reward and punishment), and definitions (balance of attitudes favorable and unfavorable toward the behavior). There is a need for more research highlighting the importance of, and more closely examining, racial–ethnic differences in justice populations. There are likely to be differing health needs, and subsequent treatment approaches, by racial/ethnic group and by gender.

## JUSTICE INVOLVED YOUTH

Despite overall declines in youth arrest rates since 2010, estimates indicate approximately 697,000 youth under the age of 18 are arrested annually.<sup>33</sup> Rates of decline, however, are substantially lower for women (31% of 2019 arrests) and rates of disproportionate arrest for Black youth persist. American Indian youth also have disproportionate arrest rates relative to White youth but rates among Latinx youth are not uniformly reported and therefore unknown.<sup>33</sup> Juvenile justice system contact is associated with a variety of adverse public health outcomes, such as substance use,<sup>34–36</sup> psychiatric symptoms,<sup>36–38</sup> sexual risk behavior,<sup>34,39</sup> and higher rates of sexually transmitted infections (STIs).<sup>40–42</sup> As many as 50% of justice-involved youth who use substances also have ADHD; rates of traumatic violence exposure are astronomically high and associated with symptoms of posttraumatic stress and increased rates of problematic substance use. Much of prior research focuses on these associations among youth in detention; more recent research demonstrates these same adverse public health outcomes hold for youth who may have had only one court contact, even if never detained (herein referred to as justice-impacted youth or JIY).<sup>34,43,44</sup> For example, first-time justice-involved youth who are on average 14.5 years old report 3 prior adverse childhood experiences (ACEs) and those ACEs, particularly abuse, are associated with problematic substance use and mental health needs 1 year later.

Additionally, substance use is associated with recidivism for youth and adults with co-occurring mental health needs.<sup>36,45,46</sup> Teplin and colleagues<sup>47</sup> have conducted seminal work on the long-term (up to 15 years) trajectories of substance use and psychiatric disorders in a juvenile detainee sample demonstrating high rates of psychiatric and comorbid substance use need that follows a diverse cohort of JIY into young adulthood.<sup>47</sup> The US juvenile justice system has largely become the default behavioral health system of care and primary setting for SUD treatment of minoritized youth, which only serves to perpetuate systems of racial oppression and mass incarceration that are responsible in the first place for the gross inequities in community-based substance use services access and associated poorer health outcomes for minoritized youth into adulthood.

### Promising Culturally Responsive Interventions and Evidence-Based Treatment

Systematic analysis of primary substance use prevention programs for children and adolescents<sup>48</sup> described a final pool of 90 studies on 16 different programs, but of that group most reported on majority White or nonidentified samples. Only 4 included specificity for a Black sample, 3 for a Latinx sample, and two with an American Indian

sample, suggesting limited attention to cultural factors in prevention design. Meta-analysis<sup>7</sup> identified 8 peer-reviewed publications describing culturally sensitive programs out of more than 7000 searched. These culturally sensitive treatments were specifically designed for Black, Hispanic, or Native American youth. Some included multi-lingual delivery, cultural competency training of clinicians, racial-ethnic matching of provider to client, and offering accessible locations. These adapted interventions showed a significantly larger reduction in symptoms relative to comparison conditions.

Attrition is a significant problem in working with adolescents in general and even more so among adolescents with substance use problems. Fortuna, Porche, and Padilla<sup>49</sup> conducted an open pilot trial study of a manualized therapy for adolescents with posttraumatic stress, depression, and substance use that uses a combination of cognitive therapy and mindfulness, and delivered in the preferred language of the youth (English or Spanish) in community-based settings (eg, primary care, community-based organizations and community mental health clinics). The study had a 62% retention rate, not dissimilar to other treatment studies with adolescents for depression, anxiety, PTSD, and SUDs. Latinx adolescents had a higher rate of retention than other participants did; the opportunity to work with a culturally matched Spanish-speaking provider may have been an influence. In addition, the therapy intervention was developed with input from youth, including Latinx immigrants, to better understand relevant terminology, and socio-cultural context of their trauma experiences. The significance of integrating spirituality was an important theme. Overall, youth outcomes provided evidence of decreased substance use and reduced PTSD symptoms.<sup>49</sup>

## FAMILY-BASED INTERVENTIONS

Research demonstrates that treatment, recovery, and family well-being outcomes improve when the complex needs of each family member are met through supportive services. The Multiple-Family Group Intervention (MFGI) was developed for use with boys and girls from diverse backgrounds in juvenile justice.<sup>50</sup> To address affect regulation and attachment, youth and families participated in an 8-week session of family therapy that used video, discussion, and roleplay, before release from juvenile correctional facilities. Results at 6-month follow-up showed improved caregiver-child relationships, reduced attachment to delinquent peers, reduction in recidivism, decline in externalizing behaviors, and significant reduction in drug and alcohol use.<sup>50</sup> One of the few available interventions working with Spanish-speaking Latinx immigrant parents provided an 8-week intervention to improve parenting practices associated with risk of adolescent substance use including harsh parenting, monitoring, conflict, attachment, and involvement.<sup>51</sup> Designed in collaboration with Latinx parents and community groups, the intervention showed evidence of feasibility and of improving parent-child relationships that would be protective against adolescent substance use.<sup>51</sup> A family-centered approach extends well beyond the SUD treatment system and includes the child welfare system, courts, and mental health services, and includes all other agencies and individuals who interact with and serve families.



## Gender-Based Intervention, with Girls of Color

Recent cannabis use rates among 14.5-year-old (8–10th graders) justice-involved youth living in the community are approximately 50%<sup>34</sup>; this is more than twice that reported by 12th graders in general adolescent population surveys.<sup>52</sup> Justice-involved youth report higher rates of cannabis use (48% of community-supervised; 54% of detained youth) than their same-age non-justice-involved peers, and often begin using cannabis by 13 year old.<sup>34,53</sup> Youth arrested in the past year have over 6 times higher prevalence of cannabis use disorder compared with those with no past year justice involvement.<sup>54</sup> Rates of cannabis use are particularly high among justice-involved girls in the community, with 55% reporting lifetime use (vs 45% of boys).<sup>34</sup> Cannabis use has significant consequences for justice-involved youth, with those who report past year use being more likely to experience school failure, use other substances, sell and be offered drugs, and engage in violent behavior.<sup>55</sup> Despite being highly prevalent with these far-ranging consequences, community supervised justice-involved youth are unlikely to receive substance use services; only 33% of community supervision and behavioral health providers serving justice-involved youth provide such services.<sup>56</sup> Motivational enhancement therapy/cognitive behavioral therapy (MET/CBT) is a widely used, evidence-based adolescent group-based substance use intervention, including for justice-involved youth.<sup>57</sup> Yet, of the 600 Cannabis Youth Trial (CYT) participants (including 62% justice-involved),<sup>58</sup> most were men (83%) and White (61%).<sup>59,60</sup> A recent MI/CBT trial included 65% racial and ethnic minority incarcerated youth but only 10% girls and MI/CBT was not superior to relaxation training and substance education/12 steps in reducing youth cannabis use.<sup>61</sup> Despite widespread dissemination, we lack studies of MET/CBT efficacy or effectiveness in reducing cannabis use with larger samples of justice-involved girls and/or Black and Latinx youth.

Data suggest girls have unique developmental pathways to substance use and justice system involvement, warranting *gender-responsive* intervention. Justice-involved girls experience substantially higher rates of trauma, abuse (all types), and neglect than boys, which is associated with girls' increased substance use and more severe psychopathology (particularly internalizing disorders such as depression). These worse behavioral health outcomes are also correlated with juvenile justice involvement.<sup>62,63</sup> Likewise, conflictual interpersonal relationships seem to be related to girls' substance use, sexual and reproductive health, and delinquency.<sup>64–66</sup> Certain psychological constructs, such as self-efficacy, self-esteem, empowerment, and identity (eg, related to gender, race, and ethnicity) are also related to girls' health and behavioral outcomes<sup>67–69</sup> including cannabis use patterns.<sup>70</sup> Gender-responsive substance use interventions targeting these constructs and addressing unique developmental pathways to risk (eg, are trauma-informed), such as Helping Women Recover, reduce substance use and recidivism<sup>71,72</sup> among women in the criminal justice system.

VOICES is the adolescent version of Helping Women Recover<sup>73</sup> and the first gender-responsive trauma-informed substance use intervention developed specifically for justice-involved girls. VOICES includes content corresponding with Markoff and colleagues's<sup>74</sup> 10 principles of trauma-informed care,<sup>74</sup> such as emphasizing strengths and resilience and recognizing the impact of violence and victimization on development and coping



strategies. All activities are based on relational and gender empowerment theories. Drug use, mental health, and well-being are addressed in intervention activities promoting learning and understanding of feelings about self and interpersonal relationships. Unlike CBT approaches that directly target substance use attitudes, beliefs, feelings, and behaviors and teach coping, refusal, and emotion regulation skills to reduce use,<sup>75</sup> VOICES aims to build girls' empowerment, resiliency, and positive relationships to protect girls from future substance use. A recently published trial of the VOICES intervention with 113 justice and school-referred girls, ages 12 to 17 years old, with a lifetime history of substance use demonstrated that rates of cannabis use at 9-month postbaseline were significantly lower for girls randomized to VOICES 12 session, 1-hour weekly group intervention compared with a psychoeducational didactic control group (GirlHealth) matched for time and attention.<sup>76</sup> Cannabis use decreased from 56% at baseline to 38% at month 9 in the VOICES group, while use in the GH group increased from 51% to 61%. The interaction between the type and duration of time of the intervention was statistically significant ( $F = 2.92, P = .03$ ). Similar differences were observed in biologically (urine toxicology) confirmed cannabis use; cannabis was detected in 28% of the VOICES group at baseline and 19% at month 9, and 27% of the GH group at baseline and 39% at month 9 (intervention  $\times$  time,  $F = 2.28, P = .08$ ). Statistically significant decreases in trauma and depression symptoms, as well as cannabis- and alcohol-related consequences, were observed in both groups, potentially reflecting a general benefit of group intervention. Delivery of VOICES by telehealth and new research in this area have created a new opportunity for reaching girls.

## SUMMARY

Black, Latinx, Native American, and other youth of color are less likely than White adolescents to receive treatment of SUDs, the vast majority of which involve marijuana and alcohol misuse. Minority youth are less likely to have health insurance, to be identified and referred for SUD, and to have close geographic proximity to SUD treatment facilities. A multitude of economic, social, environmental, gender, cultural, and individual factors contribute to access gaps. Inequities in access to care result in consequentially disparate outcomes for minoritized youth including disrupted education, incarceration, economic disparities, and poor mental health.

Preventative and interventional services integration in primary care and schools could offer expanded access to treatment, and collaboration with the community could improve access to culturally and structurally responsive care for patients in geographic areas with limited health care resources. Adolescents who do not address their alcohol and drug use can experience lifelong mental health and economic consequences. Child and Adolescent Providers and policymakers must advocate for expanded coverage and access to SUD prevention and treatment, implementation, reimbursed, and integrated SUD and mental health services that are culturally appropriate, equitable, and antiracist, and trauma informed within child-serving systems of care.

## PRACTICAL RECOMMENDATIONS

Policy

1. Advocate for policies aimed at expanding coverage and access to SUD prevention and treatment that is local and accessible for communities of color.
2. Adopt state policies and regulations that increase eligibility and coverage of basic substance-use treatments for youth with public insurance.
3. Leverage juvenile justice reform to promote concurrent policy changes in adolescent SUD prevention, identification, and treatment access.

#### Services

1. Integrate SUD and mental health services, which are culturally appropriate, equitable, antiracist, and trauma-informed across child-serving systems of care.
2. Improve access to culturally, structurally competent, and gender appropriate care for patients in geographic areas with limited health care resources.
3. Intervene at multiple, critical points of justice system contact to improve youth behavioral health, legal, and other associated outcomes.
4. Develop school-based messaging about substance use norms that are based on building connections with students, and approach prevention and intervention through a trauma-sensitive lens, including attention to racial trauma; encourage self-reflection for staff regarding racial bias and expectations.
5. Advance public health initiatives, which promote and incentivize assessment, identification, and referral of SUDs across child and family-serving systems.

## RESEARCH

1. Include minoritized youth and girls in study designs.
2. Develop culturally specific and intergenerational interventions (eg, development and testing of holistic substance use interventions that treat substance using caregiver and youth within a family-based intervention).
3. Research services innovations and their implementation across child-serving systems (eg, studying interorganizational relationships and cross-system collaborative strategies that successfully expand care access).
4. Implement learning collaboratives to increase access and capacity for substance use treatment in community-based services.
5. Create and test digital health interventions for SUD prevention and treatment and study outcomes for minoritized youth (eg, hybrid design trials of SUD group treatment of special populations, like girls, delivered via telehealth).

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### KEY POINTS

- Racial and ethnic minority youth experience significant barriers to substance use disorder (SUD) treatment and receive lesser quality services than their White counterparts in the United States.
- Black and Latinx adolescents are less likely than White adolescents to receive treatment of SUDs or to have close geographic proximity to SUD treatment facilities.
- Inequities in access to care result in significant disparate outcomes for Black, Latinx, and American Indian youth including disrupted education, juvenile detention, economic disparities, and poor mental health.
- Integration of services in primary care and schools could offer expanded access to prevention and treatment, especially for cannabis use and mild to moderate disorders.
- Collaboration among community health and mental health centers should improve access to culturally and structurally responsive care for patients in geographic areas with limited health care resources.



### CLINICS CARE POINTS

- Implement universal screening with substance use screening tools, such as the CRAFFT, to identify adolescents at risk, and in need of further assessment of substance disorders in primary care and mental health services.
- Conduct a comprehensive diagnostic evaluation that includes the youth and their caregivers to characterize developmental history, risk, and protective factors, history of trauma and adversity, current and lifetime psychiatric symptoms and disorders, and substance use and related disorders.
- Use of the updated cultural formulation model is strongly advised at intake with youth of color to understand their causal attributions, cultural conceptions of coping, and help seeking for substance use.
- All adolescents who present with substance use or SUDs need to be carefully assessed for co-occurring psychiatric disorders.
- Use of culturally responsive and trauma informed evidence-based behavioral interventions should be used as the foundation or platform for treating adolescents with SUDs and whenever possible, include their families in treatment.
- Prescription of pharmacologic treatment should be administered appropriately for non-SUD disorders and without bias. For example, youth diagnosed with ADHD should not be denied stimulant medications designed to address this neurodevelopmental condition, even while receiving treatment for SUD.

**Table 1**

Prevalence of past-year abuse or dependence and treatment by race national survey on drug use and health, 2019 cohort

	<b>Non-Latino White % (SE)</b>	<b>Latino % (SE)</b>	<b>Asian % (SE)</b>	<b>Black % (SE)</b>	<b>Native American % (SE)</b>
Participants with substance abuse or dependence in previous year	4.76% (0.35%)	5.47% (0.66%)	1.20% (0.59%)	3.93% (0.57%)	9.06% (2.58%)
Specialty treatment past 12 mo	0.34% (0.09)	0.19% (0.11%)	N/A	0.40% (0.15%)	N/A
Informal treatment past 12 mo	0.67% (0.12%)	1.08% (0.29%)	0.10% (0.10%)	0.64% (0.22%)	2.35% (1.40%)
Emotional treatment in jail or juvenile detention past 12 mo	0.10% (0.04%)	0.09% (0.05%)	N/A	0.90% (0.30%)	0.74% (0.74%)

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