Bureau of Justice Assistance (BJA)

Comprehensive Opioid, Stimulant, and Substance Abuse Program (COSSAP)

Substance Use and ACEs Across the Lifespan—Part I: Infancy, Childhood, and Adolescence

Introduction

Adverse childhood experiences, referred to as ACEs, are defined by the Centers for Disease Control and Prevention (CDC) as "potentially traumatic events that occur in childhood (0–17 years)."1 One common example of an ACE witnessed by Comprehensive Opioid, Stimulant, and Substance Abuse Program (COSSAP) grantees is growing up in a household with substance use; other examples include parental separation or experiencing abuse or neglect. An estimated one-half to two-thirds of U.S. adults have experienced at least one ACE, and 15 percent to 25 percent report experiencing three or more. 1-3 This is critical, because a greater number of ACEs directly correlates with a greater frequency and severity of negative health and well-being outcomes. Studies show that people with six or more ACEs die nearly 20 years earlier than their peers without ACEs.4

In this two-part series, we will examine the unique relationship between ACEs and substance use throughout the life cycle. Each installment will discuss the impact of substance-related ACEs on one life stage and the ways that public entities, funders, and grantees can support those who are adversely affected. The first part will detail substance use as an



ACE from infancy through childhood, emphasizing specific developmental stages.

ACEs in Utero

Unborn infants are particularly susceptible to the adverse effects of parental substance use. Although there is some variation in impacts, maternal use of substances such as tobacco, alcohol, marijuana, cocaine, opiates, and methamphetamine while pregnant can all have a multitude of detrimental effects, including damage to the umbilical cord structure, increased risk of ectopic pregnancy, increased risk of pre-term delivery, low birth weight, miscarriage, respiratory complications, toxemia,





post-natal growth deficiency, microcephaly, gestational hypertension, pre-eclampsia, placental abruption, intrauterine fetal death, fetal alcohol spectrum disorders, sudden infant death syndrome, neurodevelopmental disorders, central nervous system issues, and executive functioning.⁵⁻⁷

In addition, sociocultural attitudes toward the substances used during pregnancy may isolate a pregnant mother dealing with substance use, negatively affecting her and her unborn child. She may avoid friends and family out of fear they will judge her for her present substance use. Such separation from one's social support can inhibit emotional, financial, or instrumental provision for both parent and child.⁵ A mother may also avoid personal and prenatal health care out of fear of drug testing or physician intervention, resulting in adverse fetal development. Similarly, new mothers who smoke tobacco before getting pregnant may cease breastfeeding prematurely in order to resume smoking after the child is born.⁵ Such decisions may limit the developmental and financial advantages of a longer period of breastfeeding.

ACEs in Infancy and Toddlerhood

Infants and toddlers of parents who use substances are especially vulnerable to neglect and abuse resulting from the impact of substances on their families. Parents suffering from addiction are often preoccupied with obtaining a regular supply of their substances, which may result in frequent trips to purchase opioids, stimulants, or other substances.⁸ Given the frequency of this habit, infants and toddlers may be left home alone without milk, water, food, diaper changes, and other necessary provisions. Alternatively, a parent may bring his or her infant or toddler along to obtain substances, putting the child in a potentially hazardous situation and, at the very

least, exposing the child to parental substance purchasing.⁸

Neglect may also result from periods of intoxication and withdrawal. After using some substances, a parent may be inhibited from performing typical parenting obligations, perhaps even entering a stupor that renders him or her physically and emotionally unavailable for the child. Similarly, withdrawal from some substances can sometimes be experienced as soon as 4-6 hours following last use and may present as a flu-like sickness. This could incapacitate a parent, causing him or her to neglect regular parental duties such as feeding or changing diapers. In both intoxication and withdrawal, children may be left unattended around harmful substances. and paraphernalia, ingestion of which could be fatal.9 Merely being around parents who are using substances can influence negative infant health outcomes, such as increased risk for respiratory and ear infections, sudden infant death syndrome, behavioral dysfunction, and cognitive impairment.⁵

Intoxication from other substances may cause parents to experience greater difficulty regulating their own emotions, potentially leading to panic attacks, irritation, or delusions, any of which could place a child in a dangerous situation.¹⁰ Withdrawal can also produce heightened irritability, violent outbursts, and other irrational behaviors. If a parent is around his or her child while experiencing withdrawal, the parent may unintentionally or intentionally cause harm to the child in a manner that otherwise could have been avoided.⁹

Both intoxication and withdrawal further limit a parent's ability to nurture healthy attachment to his or her child. The absence of an emotionally present relationship is considered emotional neglect, which can have detrimental consequences, as shown in the literature. Large portions of the parent's time may instead be spent obtaining, using, and recovering from substances, all of which inhibit the parent's ability to bond with the child:

Consequently, the intricate attachment system that is built on hundreds of thousands of reciprocal and implicit interactions between infant and attachment figure will be affected. Eye contact, tone, volume and rhythm of voice, soothing touch, and the ability to read the needs of the infant are all intricate building blocks of attachment. Healthy attachment is a psychological immune system of sorts. Just as humans need a physiological immune system to fight off disease and illness, likewise, the relational attachment system provides protection against psychological problems and illness. Without a healthy attachment system, a child is much more vulnerable to stress and therefore more susceptible to having problems with trauma, anxiety, depression, and other mental illness.8

ACEs in Childhood and Adolescence

In later childhood and adolescence, children may continue to experience many of the same detrimental effects of having a parent who uses substances. However, other difficulties arise too. Maintaining substance use can take a large financial toll on families. Parents may divert finances to continue funding their addictions, resulting in absent or inadequate housing, food, clothing, and medical care. Prolonged economic instability exposes children to a consistently chaotic

environment, creating an elevated stress response that can affect physical and emotional well-being.¹¹

When being raised by a parent struggling with substance use, a child may have fewer opportunities to develop healthy emotional attachments.⁸ In addition to the increased likelihood of mental illness, such children often show early signs of helplessness and defeatism, hindering their autonomy and exploration.¹² Children of parents who are emotionally unavailable because of substance use have an increased likelihood of presenting symptoms of depression and post-traumatic stress disorder, exhibiting internalizing behaviors, and initiating tobacco and illicit substance use in their own lives.¹³

As mentioned, exposure to substances and substance paraphernalia puts children at increased risk of accidental ingestion. However, as children age, they become more likely to intentionally experiment with the substances made available to them. Witnessing frequent substance use in their homes can normalize the act, enhance the perceived benefits, and lessen the perceived risks.^{14, 15} However, since adolescents are not fully physically or cognitively mature, their substance use can be especially harmful to their development.¹⁶

Considerations on How COSSAP Grantees Can Support Individuals Impacted by ACEs in Infancy, Childhood, and Adolescence

Given the multigenerational nature of substance use effects, it is essential that local, state, and national entities and funders develop solutions that support each involved party. This requires a family-centered approach that encourages collaboration across multiple systems. ¹⁷ As described in the previous COSSAP article, *Highlights from the 2020 National Forum: Law Enforcement Collaborations to Support Children Affected by the Opioid Epidemic*, COSSAP

grantees may start locally by meeting key community stakeholders, including the following:

- Medical providers: providers who serve adults during pregnancy and children from birth through adolescence, particularly ob-gyns and pediatricians
- Mental health providers: social workers, therapists who provide pre- and post-natal care, and therapists who serve children
- Advocacy services: child advocacy centers and child protective services
- School representatives: superintendents and principals
- First responders: law enforcement, emergency medical services (EMS) personnel, and firefighters
- ◆ Substance use disorder treatment providers

Through connections with each stakeholder group, COSSAP grantees can:

- ◆ Ensure a comprehensive understanding of a family-centered approach to substance use treatment, trauma-informed care, and ways to support pregnant individuals, babies, children, and adolescents through substance-use related ACEs.¹⁸
- Identify gaps in identification and service provision for individuals in these age groups impacted by substance use-related ACEs.
- Brainstorm opportunities for improved service provision.

If contingency management has not already been implemented, grantees should actively consider it as an adjunct to other treatments because it has been shown to increase treatment attendance, participation, and adherence.

Additional funding provided to the systems involved, particularly social support services and child welfare systems, can greatly enhance their ability to provide adequate support to children and families.¹⁹ Funding

allocated to the provision of contingency management in treatment programs may increase parents' success in achieving sobriety, which benefits the whole family.⁵ With well-funded comprehensive care models in place, both parents and children can receive the support they need to flourish.¹⁸

One COSSAP grantee, Florida's Family Dependency Drug Court Enhancement Project, focuses much of its effort on supporting children and families affected by the opioid epidemic. The project prioritizes evidence-based, trauma-informed interventions in its work with families. Its primary strategies for assisting substance-affected families are offering substance use disorder prevention services for children of participants and providing parent-child relationship-strengthening interventions.²⁰ These efforts respond to two crucial needs of families with parental substance use: protecting children from possible addiction and restoring relationships within families.

By increasing opportunities for collaboration across the agencies with which they work, "... the likelihood of effectively addressing all the needs of a child increase as different systems contribute distinct forms of assistance."21 Grantees can also support substance-affected families by strengthening access to comprehensive health care in their communities, particularly for mothers and infants.¹⁹ They can also create avenues for communication between community agencies, who will likely benefit from established, structured dialogue. This can occur more easily if communication plans, data-sharing agreements, and other systems are in place. With a thorough understanding of the impact of substances on children and families, grantees can redirect their efforts toward comprehensive, collaborative, family centered care.

Endnotes

- 1. Centers for Disease Control and Prevention. (2019). Preventing adverse childhood experiences: Leveraging the best available evidence. National Center for Injury Prevention and Control, Centers for Disease Control and Prevention. Retrieved March 30, 2021, from https://www.cdc.gov/violenceprevention/pdf/preventingACES.pdf.
- 2. Giano, Z., Wheeler, D. L., & Hubach, R. D. (2020, Sep 10). The frequencies and disparities of adverse childhood experiences in the U.S. *BMC Public Health*, 20(1), 1327. https://doi.org/10.1186/s12889-020-09411-z. PMCID: PMC7488299. PMID: 32907569.
- 3. Iniguez, K. C., & Stankowski, R. V. (2016, Dec). Adverse childhood experiences and health in adulthood in a rural population-based sample. *Clinical Medicine & Research*, 14(3–4), 126–137. https://doi.org/10.3121/cmr.2016.1306.
 PMCID: PMC5302459. PMID: 27503793.
- 4. Brown, D. W., Anda, R. F., Tiemeier, H., Felitti, V. J., Edwards, V. J., Croft, J. B., & Giles, W. H. (2009, Nov). Adverse childhood experiences and the risk of premature mortality. *American Journal of Preventive Medicine*, 37(5), 389–396. https://doi.org/10.1016/j.amepre.2009.06.021.
 PMID: 19840693.
- 5. Forray, A., & Foster, D. (2015, Nov). Substance use in the perinatal period. *Current Psychiatry Reports*, 17(11), 91. https://doi.org/10.1007/s11920-015-0626-5. PMCID: PMC4671272. PMID: 26386836.
- 6. Alhusen, J. L., Lucea, M. B., Bullock, L., & Sharps, P. (2013, Aug). Intimate partner violence, substance use, and adverse neonatal outcomes among urban women. *Journal of Pediatrics*, 163(2), 471–476. https://doi.org/10.1016/j.jpeds.2013.01.036. PMCJC: PMCJ686908. PMID: 23485028.
- 7. Quesada, O., Gotman, N., Howell, H. B., Funai, E. F., Rounsaville, B. J., & Yonkers, K. A. (2012, Aug). Prenatal hazardous substance use and adverse birth outcomes. *Journal of Maternal-Fetal & Neonatal Medicine*, 25(8), 1222–1227. https://doi.org/10.3109/14767058.2011.60214 3. PMCID: PMC3398231. PMID: 22489543.
- 8. Lander, L., Howsare, J., & Byrne, M. (2013). The impact of substance use disorders on families and children: From theory to practice. *Social Work Public Health*, 28(3–4), 194–205. https://doi.org/10.1080/19371918.2013.759005.
 PMCID: PMC3725219. PMID: 23731414.
- 9. Baston, P. (2020, May 6). The daily life realities of a parent with an opioid use disorder (OUD) cossapresources. org. https://www.cossapresources.org/Content/Documents/Articles/Daily Life Realities of a Parent with OUD.pdf.

- 10. Ciccarone, D. (2011, Mar). Stimulant abuse: Pharmacology, cocaine, methamphetamine, treatment, attempts at pharmacotherapy. *Primary Care: Clinics in Office Practice*, 38(1), 41–58. https://doi.org/10.1016/j.pop.2010.11.004. PMCID: PMC3056348. PMID: 21356420.
- 11. Cutuli, J. J., Wiik, K. L., Herbers, J. E., Gunnar, M. R., & Masten, A. S. (2010, Jul). Cortisol function among early school-aged homeless children. *Psychoneuroendocrinology*, 35(6), 833–845. https://doi.org/10.1016/j.psyneuen.2009.11.008.PMCID:PMC2875367.PMID: 20022181.
- 12. Bowlby, J. (1988). A secure base: Clinical applications of attachment theory. Routledge.
- 13. Cohen, J. R., Menon, S. V., Shorey, R. C., Le, V. D., & Temple, J. R. (2017, Jan). The distal consequences of physical and emotional neglect in emerging adults: A person-centered, multi-wave, longitudinal study. *Child Abuse and Neglect*, 63, 151–161. https://doi.org/10.1016/j.chiabu.2016.11.030.PMCID: PMC5282706.PMID: 27923183.
- 14. Sørensen, H. J., Manzardo, A. M., Knop, J., Penick, E. C., Madarasz, W., Nickel, E. J., Becker, U., & Mortensen, E. L. (2011, Jul). The contribution of parental alcohol use disorders and other psychiatric illness to the risk of alcohol use disorders in the offspring. *Alcoholism, Clinical and Experimental Research*, 35(7), 1315–1320. https://doi.org/10.1111/j.1530-0277.2011.01467.x. PMCID: PMC3653408. PMCID: PMC3653408.
- 15. Lieb, R., Merikangas, K. R., Hofler, M., Pfister, H., Isensee, B., & Wittchen, H. U. (2002, Jan). Parental alcohol use disorders and alcohol use and disorders in offspring: A community study. *Psychological Medicine*, 32(1), 63–78. https://doi.org/10.1017/s0033291701004883. PMID: 11883731.
- 16. Squeglia, L. M., Jacobus, J., & Tapert, S. F. (2009, Jan). The influence of substance use on adolescent brain development. *Clinical EEG and Neuroscience*, 40(1), 31–38. https://doi.org/10.1177/155005940904000110. PMCID: PMC2827693. PMCID: PMCID: PMC
- 17. Watkins, K. E., Ober, A. J., Lamp, K., Lind, M., Setodji, C., Osilla, K. C., Hunter, S. B., McCullough, C. M., Becker, K., Iyiewuare, P. O., Diamant, A., Heinzerling, K., & Pincus, H. A. (2017, Oct 1). Collaborative care for opioid and alcohol use disorders in primary care: The SUMMIT Randomized Clinical Trial. JAMA Intern Med, 177(10), 1480–1488. https://doi.org/10.1001/jamainternmed.2017.3947. PMCID: PMC5710213. PMID: 28846769.

- 18. NCSACW. (2021). Family-centered approach modules 1–3. National Center on Substance Abuse and Child Welfare. Retrieved March 30, 2021, from https://ncsacw.samhsa.gov/topics/family-centered-approach/fca-modules.aspx.
- 19. Patrick, S. W., & Schiff, D. M. (2017, Mar). A public health response to opioid use in pregnancy. *Pediatrics*, 139(3). https://doi.org/10.1542/peds.2016-4070.PMID:28219965.
- 20. Florida Office of the State Courts Administrator. (n.d.). *The Family Dependency Drug Court Enhancement Project. Overview.* Bureau of Justice Assistance (BJA). Retrieved March 30, 2021, from Florida_FY2019_Start.pdf (cossapresources.org)
- 21. Bureau of Justice Assistance. (n.d.). Collaborating with community agencies to support children of parents with substance use disorders. Bureau of Justice Assistance (BJA). Retrieved March 30, 2021, from Collaborating_With_Community_Agencies_to_Support_Children_of_Parents_With_SUD.pdf (cossapresources.org)

Visit the COSSAP Resource Center at www.cossapresources.org.

About BJA

The Bureau of Justice Assistance (BJA) provides leadership and services in grant administration and criminal justice policy development to support local, state, and tribal law enforcement in achieving safer communities. To learn more about BJA, visit www.bja.gov and follow us on Facebook (www.facebook.com/DOJBJA) and Twitter (