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# U.S. adults with opioid use disorder living with children: Treatment use and barriers to care

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ABSTRACT

*Background:* U.S. Adults with an opioid use disorder who live with a child have unique treatment needs, but little is known about the treatment use of these adults.

*Methods:* Data come from the 2010–2014 versions of the National Survey on Drug Use and Health, an annual, nationally representative survey assessing substance use in the United States. Adults (> 18) with a heroin or pain-reliever use disorder living in a household with a child (< 18) were compared to adults not living with children on their use of substance use treatment, treatment settings, payment sources, perceived unmet need for treatment, and barriers to care using logistic regression to adjust for demographic differences between groups.

*Results:* Of the 820,000 adults with an opioid use disorder living with at least one child, 28% reported receiving any past-year substance use treatment, a rate comparable to adults not living with a child (30%). Among adults reporting unmet treatment need, those who lived with a child were more likely to report that access barriers like not being able to find the right kind of program (aOR 2.9, 95% CI 1.2–7.1), as well as stigma (aOR 4.1, 95% CI 1.5 to 11.2), kept them from receiving care.

*Conclusion:* Most adults with opioid use disorder who live with a child are not receiving any substance use treatment. Efforts to expand opioid use disorder treatment programs must include investment in programs that meet the specialized needs of families.

## 1. Introduction

The United States is currently experiencing its worst ever epidemic of drug-related problems, an epidemic driven primarily by opioids. In 2016, an estimated 64,000 Americans died of a drug overdose, two-thirds of them from opioids (National Institute on Drug Abuse, 2017). Most proposed approaches addressing this epidemic have focused on preventing harm to adults. However, with at least 2 million Americans suffering from an opioid use disorder, there is growing evidence that this epidemic of adult opioid use is spilling over and impacting children and adolescents.

There are at least five pathways by which the current opioid epidemic threatens child and adolescent health:

- First is the immediate risk of child and adolescent access to and use of parents' opioids and the related risk of overdose death as drugs become more widely available. Indeed both child and adolescent overdoses have increased (Kane, Colvin, Bartlett, & Hall, 2018; Ryan et al., 2016).
- Second, though its teratogenic effects are less severe than either alcohol or tobacco (European Monitoring Center for Drugs and Drug Addiction, 2012), opioid use in pregnancy is associated with low birth weight, premature birth, impaired intrauterine growth, respiratory depression and, if the mother is injecting drugs, blood borne infections (European Monitoring Center for Drugs and Drug Addiction, 2012). Maternal opioid use during pregnancy and neonatal abstinence syndrome cases both increased over the course of the last decade (Patrick & Schiff, 2017).
- Third, parent substance use is generally associated with decreased attentiveness to children's needs (Mayes et al., 1997), more authoritarian parenting styles (Wellisch & Steinberg, 1980), deficits in emotion regulation and parenting knowledge (Neger & Prinz, 2015), and coercive parenting (Barnard & McKeganey, 2004; Dawe & Harnett, 2007). These are risk factors for both intentional and unintentional child injury, both of which are increasing in counties most affected by the opioid epidemic (Ghertner, Baldwin, Crouse, Radel, & Waters, 2018; Quast, Storch, & Yampolskaya, 2018; Wolf, Ponicki, Kepple, & Gaidus, 2016).
- Fourth, opioid use disorder is costly (Roddy & Greenwald, 2009). Money spent on drugs may come out of the budget that is needed to

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care for children (Barnard & McKeganey, 2004).

- Finally, children may be separated from a parent with an opioid-related problem. This could happen because of a foster care placement, a parent's incarceration, a parent's extended stay in psychiatric or residential drug treatment, or a parent's death (Kolar, Brown, Haertzen, & Michaelson, 1994; Radel, Baldwin, Crouse, Ghertner, & Waters, 2018). Some research suggests that separations resulting from parent opioid addiction are less like to ultimately end with reunification than separations caused by other substance use problems (Grella, Needell, Shi, & Hser, 2009).

Collectively, these (and perhaps other) pathways to harm pose a serious threat to the health of children growing up in families and communities struggling with opioid-related problems. Research shows that experiences of trauma and deprivation in childhood are robust risk factors for a host of chronic health conditions across the life course (Anda et al., 2006; Felitti et al., 1998; Lamont, 2010), including adult substance use problems (Dube et al., 2003). Without an adequate public response to meet the needs of these children and their families, there is a risk that today's acute opioid crisis will evolve into a host of chronic health and social problems for the next generation related to increased likelihood of adverse exposures described above.

An essential strategy for meeting the needs of children affected by the opioid epidemic is ensuring their parents and caregivers have access to evidence-based treatment. Medication-assisted treatments with buprenorphine or methadone are the best-supported treatments for opioid use disorder – as compared to abstinence-based treatments, medication-assisted treatments reduce risk of overdose death and relapse and improve functioning (Volkow, Frieden, Hyde, & Cha, 2014), and have been identified as an essential strategy for reducing opioid-related mortality and morbidity (Christie et al., 2017). There is evidence that medication-assisted treatments are beneficial for both pregnant women and parents. Medication-assisted treatments for opioid use disorder in pregnancy increase engagement in prenatal care and improve outcomes for both the mother and child (Patrick & Schiff, 2017). Among families involved in the child welfare system, facilitating parents' access to medication-assisted treatment for opioid use improves the safety and developmental appropriateness of parent-child interactions, and is associated with increased odds of parent-child reunification following a foster care placement (Hall, Wilfong, Huebner, Posze, & Willauer, 2016).

Unfortunately, fewer than one-third of Americans with opioid use disorder receive any treatment, and fewer than a third of those in treatment receive medication-assisted treatment (Feder et al., 2017; Krawczyk, Feder, Fingerhood, & Saloner, 2017). A number of factors may contribute to this need-treatment gap including a lack of perceived need for treatment (Ali, Teich, & Mutter, 2015), inability to pay for treatment (Feder et al., 2017), a shortage of providers (Jones, Campopiano, Baldwin, & McCance-Katz, 2015), and stigma associated with seeking care.

There are reasons to believe that the treatment patterns and barriers faced by parents with dependent children are different from those of childless adults. In his classic healthcare utilization model, Andersen describes three sets of factors that can influence utilization of healthcare: 1) predisposing characteristics such as demographics, 2) real or perceived need for care, and 3) enabling resources or barriers to care (Andersen, 1995). Parents and caregivers with opioid use disorders may differ from their counterparts without dependent children on all three of these factors: 1) Parents and caregivers may be demographically different from adults without dependent children; 2) The desire to be a good parent or “be there” for children may influence perceived need for treatment, and has been reported in qualitative studies as a reason parents choose to seek care (Barnard & McKeganey, 2004). 3) Parents and caregivers may face unique barriers to care – for example, a shortage of family-friendly treatment programs or a lack of childcare; and parents and caregivers may also have unique enabling factors – for example, increased likelihood of Medicaid eligibility due to higher income eligibility limits for parents in some states. Understanding the current service access and utilization of adults with opioid use disorder who have children – and how these adults differ from adults without dependent children – can inform a public health response to the opioid epidemic that addresses the epidemic's effects on children.

This paper uses data from a nationally representative survey to describe the substance use treatment access and utilization of adults who have an opioid use disorder and are living with children under age 18, and compare these adults living with children to their counterparts not living with children. It seeks to answer the following questions:

1. What proportion of adults living with children have an opioid use disorder? What are the demographic characteristics of this population?
2. What proportion of adults with an opioid use disorder who live with children receive substance use treatment? In what settings do they receive treatment and who pays for their care?
3. What proportion of adults with an opioid use disorder who live with children perceive a need for substance use treatment? What barriers do these adults face in receiving care?

In all cases, these characteristics are compared to adults with opioid use disorder who are not living with children, to better understand the unique treatment landscape facing adults with an opioid use disorder who live with children.

## 2. Materials and methods

### 2.1. Study population and data

The National Survey on Drug Use and Health (NSDUH) is an annual, nationally representative survey of the U.S. households conducted by the Substance Abuse and Mental Health Services Administration (SAMHSA). Respondents are asked about their use of alcohol, tobacco, and other drugs; about the use of substance use treatment; and about an array of experiences and conditions thought to be related to substance use, including substance use disorders, mental health problems, and physical health problems. Data for this study are drawn from the 2010–2014 NSDUHs. Beginning in 2015, the NSDUH prescription drug module was revised to begin identifying people who used prescription drugs as directed by a doctor; this broadened the pool of respondents assessed for a pain-reliever use disorder. For this reason, 2010–2014 was selected as the most recent consecutive five-year period in which survey questions were comparable across the full period (Quast et al., 2018; Wolf et al., 2016). SAMHSA provides a cleaned and anonymized version of the dataset online for public use through its Substance Abuse and Mental Health Data Archive (SAMHDA) (SAMHSA, n.d.).

The study population was comprised of adults (18 or older) who met criteria for an opioid use disorder in the year preceding their interview. This included participants who reported using a pain-reliever in a manner other than prescribed by a doctor, as well participants who reported heroin use. Use disorder was defined as meeting criteria for DSM-IV substance abuse or dependence. Because all variables used in the analysis were statistically imputed by SAMHSA prior to making data publicly available, there are no missing observations. The final population consisted of 3287 adults with opioid use disorder. Some subanalyses were completed on the sub-population of adults who received treatment ($n$ = 923), and the subpopulation who reported a perceived unmet need for treatment ($n$ = 408).

### 2.2. Measures

#### 2.2.1. Exposure

The exposure of interest in the present study is the presence of at least one child (17 or younger) living in the household of the survey