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# Implementation of family centered substance use treatment for pregnant and postpartum people to prevent the intergenerational transmission of adverse childhood experiences

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## Abstract

**Background:** Family-centered substance use treatment (FCSUT) may have benefits for parents, children, and their families, and have the potential to decrease adverse childhood experiences (ACEs). Few treatment programs use FCSUT, even those that aim to serve pregnant and postpartum people.

**Objectives:** To understand how families are integrated into FCSUT services for pregnant and postpartum people, explore the perceived benefits of FCSUT for families and parents, and identify challenges to implementing FCSUT.

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Declaration of competing interest

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Disclaimer

The findings and conclusions in this paper are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

CRediT authorship contribution statement

**Mary Harbert Morgan:** Writing – review & editing, Writing – original draft, Methodology. **Jesse L. Coe:** Writing – review & editing, Writing – original draft, Methodology. **Elissa C. Kranzler:** Writing – review & editing, Writing – original draft, Formal analysis. **Kathryn Rehberg:** Writing – review & editing, Writing – original draft, Formal analysis, Data curation. **Rachel Ingersoll:** Writing – review & editing, Writing – original draft, Formal analysis. **Natalie Namrow:** Writing – review & editing, Writing – original draft, Supervision, Project administration. **Sarah Huber-Krum:** Writing – review & editing, Writing – original draft, Supervision, Methodology, Formal analysis, Conceptualization.

Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.chiabu.2024.107066.

**Participants and settings:** Interviews with 26 administrators and providers working at FCSUT facilities and 27 pregnant and postpartum people who were currently receiving or had previously received services in the last two years from FCSUT facilities.

**Methods:** A qualitative thematic analysis was conducted using data from semi-structured in-depth interviews.

**Results:** The analysis revealed four themes: (1) the importance of families in treatment and recovery; (2) benefits of FCSUT for parents; (3) benefits of FCSUT for families; and (4) additional areas for FCSUT program growth. Despite reported benefits (e.g., improving parenting and communication skills; promoting healthy relationships with children, partners, and other family members; and facilitating a support system for long-term recovery), facilities and families face challenges integrating whole family units into treatment.

**Conclusions:** FCSUT may offer a range of benefits to pregnant and postpartum people and their families. Addressing challenges, such as fully integrating all family members into treatment, may improve FCSUT programs. Meeting the needs of all family members during treatment supports safe, stable, and nurturing relationships and environments for children that may decrease ACEs.

### Keywords

Adverse childhood experiences; Qualitative methods; Pregnant and postpartum people; Substance use disorder; Substance use disorder treatment; Family-centered services

## 1. Introduction

Adverse childhood experiences (ACEs) are potentially traumatic events that occur in childhood (0–17 years) and can include experiencing or witnessing violence, abuse, or neglect (Felitti et al., 1998; National Child Traumatic Stress Network, 2019). ACEs can increase the risk of negative, long-term effects on physical and mental health and other life opportunities, such as increased risk of injury and a wide range of chronic physical and mental conditions (De Venter et al., 2013; Merrick et al., 2019). ACEs also include aspects of a child's environment that weaken their sense of safety, stability, or bonding, including exposure to problematic parental or caregiver substance use (i.e., drugs and alcohol) (Centers for Disease Control and Prevention, 2019; Felitti et al., 1998). Parental substance use disorders (SUDs) are also associated with an increased risk for child maltreatment (U.S. Department of Health & Human Services, 2022; Younas & Gutman, 2022). SUDs have increased among pregnant and postpartum people; for example, the prevalence of opioid use disorder in the United States (U.S.) increased from 1.5 per 1000 delivery hospitalizations in 1999 to 6.5 per 1000 delivery hospitalizations in 2014 (Haight et al., 2018). This increased prevalence of Opioid Use Disorder among pregnant people suggests the importance of addressing children's exposure to parental substance use and corresponding ACEs.

There is evidence to suggest ACEs can be transmitted intergenerationally, or across generations from parents to children, via direct and indirect pathways (Font & Maguire-Jack, 2016; Heyman & Slep, 2002; Pears & Capaldi, 2001; Thornberry et al., 2012). In addition, there is a higher prevalence of ACEs among individuals with SUDs compared to individuals without SUDs (Leza et al., 2021), and ACEs have been linked to substance use during

pregnancy (Chung et al., 2010; Frankenberger et al., 2015) and to pre- and post-natal depression and anxiety among mothers (Letourneau et al., 2019; McDonnell & Valentino, 2016; Swedo et al., 2023; Young-Wolff et al., 2019). Additionally, mothers with SUDs may face challenges recognizing and addressing infant needs (Meulewaeter et al., 2019; Neger & Prinz, 2015), and many may have compromised pro-social parenting skills (Meulewaeter et al., 2019), suggesting that children of mothers with SUD may face a greater risk of experiencing ACEs. Fortunately, ACEs and their transmission from generation to generation are preventable (Centers for Disease Control and Prevention, 2019).

One evidence-based strategy cited by the Centers for Disease Control and Prevention for the prevention of intergenerational transmission of ACEs is family-centered substance use treatment (FCSUT) (Centers for Disease Control and Prevention, 2019). FCSUT is a treatment approach for SUD that focuses on providing a comprehensive array of services that meet the whole family's needs, not just those of the individual seeking treatment (National Center on Substance Abuse and Child Welfare, 2021). Positive outcomes of FCSUT include increased rates of family reunification (Grella et al., 2006), reduced child abuse potential (Barlow et al., 2019), reduced rates of infants with prenatal substance exposure (Milligan et al., 2011a), improved parenting attitudes and skills (Catalano et al., 1999; McComish et al., 2003; Niccols et al., 2012), improved parental physical and mental health (Ashley et al., 2003; Barlow et al., 2019; Milligan et al., 2011b; Niccols et al., 2012), and improved psychosocial and family functioning for children, parents, and family members (McComish et al., 2003; Sword et al., 2009). Taken together, FCSUT is a person-centered treatment approach to SUD treatment that may be valuable in preventing family dysfunction and separation (e.g., a family-centered approach to SUD treatment than may offer a human rights-centered approach compared to traditional carceral approaches).

Pregnant and postpartum people with SUDs often require additional support services while undergoing treatment due to their unique healthcare and family care needs (NIDA, 2020). SUD treatment in this population offers a unique opportunity to employ family-centered interventions focused on disrupting the intergenerational transmission of ACEs by strengthening parenting skills, meeting parents' needs, improving parent and child health, and preventing child abuse and neglect. Evidence suggests that comprehensive SUD treatment approaches, such as FCSUT, that integrate evidence-based SUD treatment with other preventive services that account for pregnant and postpartum people's healthcare needs, incorporate family members into treatment plans, and provide parents undergoing treatment with parenting interventions benefit both parents and their children (Centers for Disease Control and Prevention, 2019; Niccols et al., 2010; Niccols et al., 2012) and may reduce the intergenerational transmission of ACEs (Ashley et al., 2003). The perinatal time is also a critical time for bonding between parent and child, and early disruptions to parent-child interactions during the perinatal period may impact future parent-child attachment and relationship formation (Erickson et al., 2019; Lamb & Kelly, 2009). Thus, FCSUT for pregnant and postpartum people has the capacity to improve the health and well-being of future generations of children.

Despite these benefits, few SUD treatment programs utilize FCSUT. The 2019 National Survey of Substance Abuse Treatment Services (N-SSATS) found that only 5.9 % of

facilities across the U.S. provided child care for clients' children, 2.5 % offered residential beds for clients' children, 38.3 % offered services related to intimate partner violence, and 66.1 % offered assistance with obtaining social services (Substance Abuse and Mental Health Services Administration, 2020). Additionally, only 24.3 % of facilities offered programs designed specifically for pregnant and postpartum people (Substance Abuse and Mental Health Services Administration, 2020). Moreover, research focused on the implementation of FCSUT and the services that are provided by FCSUT facilities for pregnant and postpartum people is lacking. This study sought to bridge this gap in the literature by focusing specifically on the implementation of FCSUT for pregnant and postpartum people.

The current study was a qualitative analysis of in-depth interviews conducted as part of a formative, mixed-methods research study on the implementation of FCSUT approaches for pregnant and postpartum people across the U.S. This analysis aimed to expand upon FCSUT research to identify and understand how families are integrated into family-centered services for pregnant and postpartum people, explore the perceived benefits of FCSUT for families and parents, and identify challenges to implementing FCSUT, thus potentially impacting programs' abilities to prevent the intergenerational transmission of ACEs.

## 2. Methods

### 2.1. Study design

This study used qualitative data that was collected in part from a formative research study focused on the implementation of FCSUT approaches for pregnant and postpartum people in the U.S. The overarching study from which data were drawn used a sequential mixed-methods design that began with quantitative data collection (conducted between September and October 2022) followed by qualitative data collection (conducted between February and August 2023) (Coe et al., 2024). The quantitative component consisted of service provision surveys of facilities that provided FCSUT to pregnant and postpartum people. The qualitative component consisted of semi-structured in-depth interviews with administrators and providers working at FCSUT facilities and pregnant and postpartum people who were currently receiving or had previously received services in the last two years from FCSUT facilities. The current study focused on a secondary analysis of the in-depth interviews with program administrators and providers and pregnant and postpartum people.

The Fors Marsh Exemption Review Board (ERB) reviewed the quantitative research protocol. The surveys of service provision were considered research involving human subjects but exempt per 45 CFR 46.104(d)(2). The ERB determined that the quantitative surveys were exempt because the research surveyed administrators at FCSUT centers to understand the current state of these facilities, the services offered, and how these programs operate; participant identities were not readily or easily ascertainable; accidental disclosure of responses would not reasonably place subjects at risk; no minors were involved; pregnant and postpartum people were not involved; and participation in the research was voluntary. An independent Institutional Review Board (IRB) reviewed the qualitative in-depth interview research protocol that was also determined exempt from IRB oversight per 45 CFR 46.104(d)(2). The IRB granted this exemption with the understanding the research

project was only conducted as submitted, and no personally identifiable information was collected and recorded.

All participants were informed of the potential risks and benefits associated with study participation and were provided with an electronic informed consent form before completing the survey or participating in an in-depth interview. For the in-depth interviews, the study was granted a Certificate of Confidentiality from the Centers for Disease Control and Prevention to protect the privacy of study participants, and verbal consent was obtained at the start of each interview.

As noted above, this qualitative study was nested within a larger mixed-methods, formative study that aimed to understand the implementation of FCSUT programs for pregnant and postpartum people. As part of the preceding quantitative survey that was conducted with 118 FCSUT facilities across the U.S., 46 facilities consented to help us recruit pregnant and postpartum people, and administrators and providers, to participate in follow-up interviews. We then identified 23 facilities for potential participation based on a number of criteria that were chosen to maximize variety in the types of FCSUT facilities selected (e.g., type of services offered, outpatient or residential facility, U.S. state of location, and Medicaid expansion in state of location), and seven facilities agreed to participate and signed a memorandum of consent. Facilities were asked to share the study information with potential participants, which included a secure hyperlink to learn more about the study via Jotform, a Health Insurance Portability and Accountability Act (HIPAA)-compliant online form. Potential participants then used the link to assess eligibility and provide informed consent.

The research team collaborated with FCSUT facilities to recruit participants for the in-depth interviews. The goal was to recruit three to four pregnant and postpartum people and three to four administrators and providers, per facility, who met the eligibility criteria. To be eligible for participation, pregnant and postpartum people had to be 45 years old or younger and no more than two years postpartum or post adoption or have graduated from treatment within the previous two years after having been pregnant or postpartum during their treatment at the facility. Administrators and providers had to be employed by the facility at least part-time for one year or more. Eligible administrators and providers and pregnant and postpartum people were asked to provide basic demographic information, including age, sex/gender, race/ethnicity, and education. Additionally, pregnant and postpartum people were asked about their income, number of children, marital status, and involvement with child welfare and other services. Eligible administrators and providers were asked about their profession, years in the field, and current position. If eligible and interested in participation, participants were asked to provide their contact information and were invited to schedule an interview. A total of 53 eligible participants (27 pregnant and postpartum people and 26 administrators and providers) completed an in-depth interview. Supplement 1 provides a study flow diagram for the qualitative interviews. Participating facilities received a $500 stipend, and interview participants received a virtual gift card of $120 as tokens of appreciation.

### 2.2. In-depth interview coding procedures

Guided by the primary research questions and preliminary findings from the quantitative component, the research team developed two semi-structured interview guides. The

interview guide designed for pregnant and postpartum people included questions related to their perspectives on and engagement with family-centered services (e.g., parent training) and the benefits of these types of services. The interview guide designed for administrators and providers included similar topics but were adapted to include topics related to adoption, implementation, and maintenance of FCSUT and family-centered services. Interviewers completed Collaborative Institutional Training Initiative (CITI) training and trauma-informed training that included guidelines for cultural competency, sensitivity, and reflexivity (Alexander et al., 2020).

Between February and August 2023, 53 in-depth interviews were conducted via Zoom. Interviews were audio recorded with the participants' permission, and recordings were transcribed using TranscribeMe, a HIPAA-compliant vendor. All transcripts were analyzed using a multistep iterative process to determine emergent themes. First, a preliminary codebook was developed based on summary notes from each interview and the research questions and frameworks that guided the study. The codebook contained high-level thematic codes, or "nodes," that captured overarching research questions. Then, the data manager reviewed the summary notes from the interviews and added smaller, nuanced "subnodes" within each high-level node. Next, six coders began to code transcripts following the constant comparative method (Glaser, 2014). One team of three coders coded the administrator and provider interview transcripts, and one team of three coders coded the pregnant and postpartum people interview transcripts. Coders received training on qualitative methods, coding, and identifying emergent themes prior to data analysis. Throughout the coding process, each team met weekly to discuss emergent themes, discrepancies in codes, and whether any new subnodes should be added to the codebook. This process of iteratively adding subnodes continued until the coding teams exhausted all salient themes and the themes were corroborated through discussion between all coders on a team and the data manager.

To assess interrater reliability (IRR) for coded interview transcripts, each coder's output was compared to another coder's output using NVivo 12 qualitative analysis software to provide three Cohen's kappa ($\kappa$) values (i.e., coder 1 × coder 2; coder 1 × coder 3; coder 2 × coder 3) per coding team (i.e., pregnant and postpartum people interview transcripts and administrator and provider interview transcripts). The goal of this process was to reach a minimum Cohen's $\kappa$ coefficient of ≥0.70 (O'Connor & Joffe, 2020). Based on double coding of approximately 20 % of interview transcripts, Cohen's $\kappa$ values ranged from 0.71 to 0.88 for the administrators and providers coding team and 0.71 to 0.72 for the pregnant and postpartum people coding team. The remaining transcripts were divided between the three coders on each team and were each coded once. Major themes were identified by mapping like subthemes together and summarizing illustrative quotes.

## 3. Results

### 3.1. Participant demographics

The demographic characteristics of pregnant and postpartum people and program administrators and providers who participated in the in-depth interviews are summarized in Table 1. The majority of pregnant and postpartum people were between the ages of 35–44

years (59.2 %) and identified as female (96.3 %) and White (81.5 %). Just over half of pregnant and postpartum people were currently receiving treatment services (51.9 %), while 48.1 % had completed treatment within the past two years.

Many administrators and providers were between the ages of 35–44 years (34.6 %) and 51 years and older (26.9 %). Most administrators and providers identified as female (96.2 %) and white (76.9). About 42 % of administrators and providers provided health care services, while 34.6 % were supervisors or managed FCSUT treatment programs and 23.1 % provided other services.

### 3.2. Qualitative themes

In the text that follows, we summarize the following major themes, including: (1) the importance of families in treatment and recovery; (2) benefits of FCSUT for parents; (3) benefits of FCSUT for families; and (4) additional areas for FCSUT program growth. Illustrative quotes are included in the text, and additional quotes are provided in Supplement 2.

### 3.3. The importance of families in treatment and recovery

Pregnant and postpartum people's families played a pivotal role in the lifecycle of their treatment and recovery journeys. First, family and children were a primary motivating factor for SUD treatment. Most pregnant and postpartum people sought treatment to better their lives and provide a safe and supportive environment for their children. Some pregnant and postpartum people also mentioned that their involvement with child protective or welfare services was a primary motivator to complete treatment in order to regain custody or to maintain contact with their children. Many pregnant and postpartum people mentioned that they specifically sought treatment at a FCSUT facility because they were able to bring their children with them. For example, a pregnant person who had completed treatment described how her daughter was a motivating factor for seeking treatment:

> "I just knew that I wasn't going to stay sober on my own. I knew that. And I was bringing a new baby into the world. And I needed to surrender. I needed to find a new way to live. I had no idea what I was walking into, but I was willing to give it a shot and give it everything I had. And the lady at drug and alcohol had mentioned that this place supports mothers and children. That's what they're all about, and my main concern was taking care of my daughter."

Additionally, some pregnant and postpartum people reported that they had learned about the treatment facility they attended from family or friends. Some participants received positive recommendations from others who received treatment from an FCSUT facility and were successfully maintaining their recovery. One facility's substance use disorder counselor described how pregnant and postpartum people learn about their services through word of mouth:

> "A lot of the referrals that we get are supposed to come through the county Drug and Alcohol Services. But a lot of the times, it's our girls having friends or family members that are going through the same stuff that they just went through and being able to give us a call and say, 'Hey, this person needs help. If they call you,

> will you talk to them? Yes, of course, we'll talk to them, and we'll direct them where to go."

Family-centered treatment was also a key facilitator for maintaining recovery. Some pregnant and postpartum people described how the involvement of their family and children in treatment helped them in their recovery. A postpartum person currently in treatment said:

> "I think that having our kids there with us, at least for me, has helped me out a lot. And I've been able to rebuild our connection at the same time as bettering ourselves. I think that was a big benefit, just being able to have your kids."

Many administrators and providers agreed that the integration of family in treatment improves recovery outcomes and increases the chances of maintaining sobriety. A facility's outreach coordinator explained how providing services to the whole family also helps heal intergenerational trauma and, consequently, helps with recovery:

> "You're kind of breaking that cycle if you're helping the whole family… you're breaking those generational curses, those generational—so you're kind of—when you're helping this generation, these people that are engaged right now and the whole family, later on down the line, I think that that will reflect in what their children need."

### 3.4. Benefits of FCSUT for parents

The majority of pregnant and postpartum people and most administrators and providers discussed the benefits of FCSUT. Not only did participants report that FCSUT improved their or their clients' parenting skills, but that it also helped by providing family-centered services, such as childcare, that made treatment possible. Participants also mentioned specific services, such as family therapy and parent training, that helped them gain confidence in their parenting abilities. Consequently, this helped nurture their relationships with their children. A participant who was currently pregnant and had completed treatment described how counseling improved her self-esteem as a parent and, in turn, improved her communication with their family:

> "[My kids] can now see how I respect myself and learned to respect themselves so others can respect them too … I guess I've gotten a lot of my self-esteem from talking through with my counselor. She encourages me to advocate for myself. She lets me know that I can do this, and I am a good mom, and so the encouragement is there. I've been able to get on a good, solid foundation with my family… I've been able to learn about myself, but also learn how I can interact with my family again."

Many participants mentioned that the parent training offered at their facility helped them learn effective strategies to cope with stress, positive parenting and non-punitive discipline techniques, and effective parent-child communication strategies. A postpartum person who was currently in treatment said:

> "[The facility has] a parent trainer that we meet with one on one, and then they also have a nurturing parenting class… I think that that's pretty helpful, just learning how to navigate, showing just how they grow and develop, and the best way to

> navigate those different stages of their development and their different behaviors and how it affects them if you don't navigate it appropriately."

Pregnant and postpartum people mentioned other services that helped them develop life skills, such as setting up medical appointments, how to cook, and time management, that were also beneficial to their parenting abilities. A postpartum person who completed treatment described their experience:

> "We had workbooks that we worked out of. And then we had another day where we ended up doing role-playing, where you role-play out your whole life, and so other people can see. And it kind of brings awareness to you about what you went through as a kid and stuff. And then later you go to therapy with the in-house therapist, and you talk about that... And they teach me how to have responsibilities and cook and eventually, when I was ready to leave, find housing and make it to doctor's appointments. And they helped me with all the stuff that was really hard for me to do, one, because it had been so long since I had had any sort of responsibility."

In addition to these educational services, some facilities also offered childcare or residential beds for clients' children. For these participants, many described that having childcare integrated into the treatment facility was essential because trustworthy and stable care for their children provided them with peace of mind and allowed them to focus on their recovery while also maintaining and mending their relationships with their children. A postpartum client who completed treatment reported:

> "The childcare was very helpful because it gave us time to take a group, where it's just us, the moms, and to focus on what we needed to do for ourselves so that we can go back to our kids and be the best for them. I really enjoyed that time where we just got to focus on us for a little bit."

A few pregnant and postpartum participants also mentioned that their facility provided them or connected them with childcare services after they completed treatment. In these instances, clients were able to find subsidized or no-cost options that allowed them to focus on returning to work and/or focusing on their recovery without additional financial strain.

Finally, interviews indicated that FCSUT services can adapt to the unique needs of pregnant and postpartum people seeking treatment for SUD in that parents with SUDs hold two identities at once and that there may be interplay, at some level, between the two. One facility's treatment assistant supervisor shared their sentiments about the unique experiences of pregnant and postpartum people receiving treatment for SUD:

> "What that means to me is treatment that is taking into account the multiple identities that our clients have, both as a person in recovery but also as a parent in recovery and also just as a parent in general. For these women, so much of the time, their children are what is pushing them to get into recovery in the first place. Whether it's because they discovered that they're pregnant and want to be sober for their developing child or because they are realizing they cannot be both in their addiction and be a good parent to their child. Their identity as a parent is something that is really important and is going to be something that continues past

> our treatment, it's something that they're going to have to engage with once they've left our facilities. So, kind of building those skills, I think, is something that's really important."

### 3.5. Benefits of FCSUT for families

Most pregnant and postpartum participants and most administrators and providers highlighted that the benefits of FCSUT extended beyond just the individual seeking treatment to the clients' family unit. Reported benefits of FCSUT included improved relationships and family connection and increased support for long-term SUD recovery as well as improved long-term family outcomes. An addiction counselor at one facility expressed that they believe FCSUT is effective in the long term because " …*it focuses more on the whole family because addiction is a family disease versus just working on the symptoms of the substance use. So, it focuses on helping look at the whole family and healing the whole family instead of just the addict themselves*." A mental health specialist at another facility spoke about using a whole family approach and how FCSUT can improve both individual and family outcomes:

> "Well, we're talking about intervening with women so that they can change their family's trajectory. These are often women that have come from, like I said, generational addiction, generational poverty, generational violence. These are the things that raise the ACES score. And so, we're trying to help these women change that dynamic in their family's trajectory so that they will no longer be subjecting their children to violence in the home, to addiction in the home, to people being removed from the home...we're trying to help these women change that dynamic in their families and not pass on that effect to their own children."

About half of pregnant and postpartum people mentioned that taking a family-centered approach improved their family relationships and allowed them to reconnect with previously estranged family members in a healthy way and allow space to heal from their own childhood experiences. For example, as one pregnant and postpartum participant who recently received services noted,

> "I did counseling with my mom in the facility, one on one, which we've never had a relationship. Now, she's my best friend. They have these family education groups where they want to get the whole family involved… And it was encouraging to me to know that I could stand up for myself in such a way, and my mom was there for me. And even though I felt as a child that she just brushed it under the rug, she was full force there for me, which is something I've never experienced. So, it really helps [our] relationship to be able to do that together."

In regard to other family members, some participants shared that their extended families were also involved in some services offered by their treatment facility, such as educational programs and therapy. A postpartum participant who completed treatment described their positive experience with educational services provided to family members about substance use:

> "They do family-ed weekends, and that's where people come, and they learn about recovery and substance abuse. The people in our families can really understand

> what we're doing here and how using and stuff before—how that affected us but how we can move forward in a healthy way."

Most administrators and providers also reported that their facility integrated clients' families to various degrees. Many expressed that they believed offering clients with a whole-family approach helped facilitate recovery and strengthened relationships, with both children and family. One facility's outreach and care coordinator said:

> "When they're engaged together in this process and getting these services, I think that it helps build those relationships, as well. And even with the children when you're providing mom and children the services together, they're able to bond better with those services that are being provided to them… We call them wrap-around services, so where dad, mom, or whoever else is in that home and whoever else is getting those services is getting all the services. So, you're kind of healing and working on that whole family at one time."

Further, a few administrators and providers reported it is also important to provide services for the child's father, especially if they are also dealing with a substance use disorder. For example, as one parent advocate shared:

> "Someone needs to work with the father because if the mom is working on her, the father evidently needs to be working on his stuff as well, if he was in a relationship with her. So, start involving the father. Not in the relationship, because we not relationship specialists… But still, somebody to connect with the father, offer him services over here, while mom is over here."

### 3.6. Additional areas for FCSUT program growth

Although most pregnant and postpartum people indicated there are benefits to having their children with them at the facility while receiving treatment, they noted some challenges to receiving treatment while also caring for children, including the treatment facility's environment and policies as well as other external factors, such as their child(ren)'s routine and schedule and support from the co-parent and their family.

About half of the participants interviewed expressed that the facility's environment can be hard for children at times, and a few noted that having many children at a facility with limited child-oriented activities is not always conducive to being present for treatment services. A postpartum person who was currently receiving treatment said:

> "At the facility, the kids really didn't have much to do, and they couldn't really… it was like they were in treatment themselves. And that was one of the biggest things because I kept getting in trouble over what my kids were doing. And I can't really control my kids if you understand. They're going to fight. They're kids."

Another postpartum person currently receiving services also voiced that some of the rules at the facility were too restrictive and did not meet the developmental needs of their child:

> "*My 3-year-old, I felt, was way too young to be there. There was too many rules and stuff, and trying to make them stay in one area and follow the line and all that stuff is just too hard to wait for someone because you couldn't even walk across*

*the hall without somebody… You couldn't walk anywhere without permission. So, it was just too much for a 3-year-old, is how I felt."* The same participant also shared that other family members may be opposed to having children live at the treatment facility, "*My 12-year-old's dad didn't want her to be in treatment with me. He didn't like that idea ever, so I just [had] her go to her dad's, and she stayed with her dad."*

Similarly, a few administrators and providers also shared insights into the challenges that pregnant and postpartum people and their children experience while living at the facility. Specifically, children are asked to follow several rules at the facility, and while facilities try to accommodate children, they may not be able to offer the best environment for them. A facility's parent advocate and counselor shared:

> "I think the kids should be able to lay on the floor and eat cereal and watch TV. I think kids should be able to run and jump in the house and jump on the bed and play hide and go seek. I think those are things that kids need to do, but sometimes when you are in a facility, a lot of those things just aren't the same. Parents have to be aware of their kids at all times, so I think it's important that parents are mindful of that. That even though we provide a lot of things for kids, there's a lot of things that kids won't experience here."

Many participants mentioned that facilities often have "blackout" periods during which they are not allowed to contact any family or friends and/or are not allowed to have visits from men (including fathers of their children). Several participants expressed their desire for fathers and partners to be more involved in treatment, and that social isolation can make recovery more difficult for some families. A postpartum person currently receiving FCSUT noted:

> "It would be a good idea if there were more treatment facilities that included family…But there's no resources out there for families to go get treatment. There's not anywhere where you can live with your husband and your child and get treatment."

Some facility staff also supported these sentiments, noting that fathers want to be involved in their partners' treatment and recovery and in parenting their children. A parent advocate and counselor noted:

> "I think it should definitely be added to involve dads a little more. There's a lot of guys who really want to be more involved, and typically, they're not involved because they think they can't be. There's a lot of times where they just don't feel like dads. 'It's not about me. It's about her and the kids.'"

Other challenges impact whether a child can live at the facility while their parent receives treatment. For example, a few administrators and providers stated that some facilities limit the age and/or the number of children per person that are allowed to live at the facility, which can be emotionally challenging for both children and their families. A few pregnant and postpartum participants noted being away from their children made them consider not completing their treatment, even though the support and services they received benefited

their relationship with their child. A pregnant participant who previously received treatment shared:

> "Though reunification is the goal, they did not place my daughter there with me. So that was a huge challenge. And I think that the treatment that they offered, given that it's tailored to women and children, they did an amazing job at making sure I focused on nurturing, that even though she physically wasn't with me. And the effects that were happening and the things that were going on within me, given that she wasn't with me, if that makes any sense, and that there were other children there; there were mothers that had their children there. And she's a baby… So, it was a lot."

External factors also affected whether children of pregnant and postpartum people receiving treatment could live at the facility. A few participants noted that due to the distance of the facility from their home and the school in which their children were enrolled, their children could not stay with them. One pregnant and postpartum person who previously received treatment described that their *"…son wasn't there, and he had to go to school and do all that. And then the paperwork to go through, for him to come on the weekends and he still visited—make it on the weekends, but that took a toll on us."*

## 4. Discussion

The Centers for Disease Control and Prevention lists FCSUT as a promising approach that may prevent the intergenerational transmission of ACEs (Centers for Disease Control and Prevention, 2019). In this study, we aimed to identify and understand components of FCSUT programs that may impact the prevention of intergenerational ACEs, including how families are integrated into family-centered services, perceived benefits of FCSUT for families and parents, and the barriers to implementing FCSUT services. Findings from qualitative in-depth interviews with pregnant and postpartum people who were currently or had previously participated in FCSUT programs, and with program administrators and providers, uncovered four major themes: (1) the importance of families in treatment and recovery; (2) benefits of FCSUT for families; (3) benefits of FCSUT for parents; and (4) additional areas for FCSUT program growth. Findings revealed the importance of incorporating families into SUD treatment for pregnant and postpartum people, and that FCSUT programs offer benefits for both pregnant and postpartum people seeking treatment for SUD and for their children and families, including improving parenting and communication skills, promoting healthy relationships with children, partners, and other family members, and facilitating a support system for long-term recovery. Despite these reported benefits, facilities and families—especially those with young children—faced barriers to integrating the whole family unit into SUD treatment.

Prior studies that have focused on identifying the intergenerational pathways and underlying mechanisms linking parental ACEs and children's ACEs suggest that children's health and development can be improved through early intervention approaches that enhance parental mental health and parenting skills (Zhang et al., 2023). Our study findings support previous research that suggests FCSUT may improve parenting skills and attitudes (Catalano et al., 1999; McComish et al., 2003; Niccols et al., 2012) and psychosocial functioning

(McComish et al., 2003; Sword et al., 2009), as reported by parents who previously completed or are currently in treatment and by facility administrators. Our study is unique, however, in that we focused on pregnant and postpartum people, some of whom were new parents during treatment. Intervention during this early developmental period may help disrupt the intergenerational transmission of ACEs and prevent children from experiencing ACEs (Zhang et al., 2023). Additionally, interventions administered specifically during the antenatal period for pregnant people that also address maternal psychosocial needs may result in improved treatment outcomes for parents and improved developmental outcomes for children (Flykt et al., 2021), suggesting that such interventions may reduce children's exposure to ACEs. Future research may benefit from rigorous evaluation of FCSUT to assess positive outcomes of FCSUT, such as reducing ACEs exposure, for pregnant and postpartum people and their families.

Our study identified several barriers associated with FCSUT access, engagement, and implementation, including challenges for children associated with the facility environment, a lack of support for family-centered treatment among other family members, isolation for some people undergoing treatment during "black out" periods, potentially limited involvement of male partners and/or fathers due to facility regulations, facility-enforced limits on the age or number of children that can attend, and logistical barriers (e.g., distance of facility from family members or community services) that limit access to FCSUT. The Substance Abuse and Mental Health Services Administration (SAMHSA) provides a resource on family-centered care for women that outlines best practices, key elements, and challenges to family-centered care (Werner et al., 2007). The findings from this study support the guidance outlined in this resource, which notes that people receiving FCSUT services should determine how their families are defined and which family members and important others (e.g., children, spouses, and domestic partners) should participate in treatment. In families with a history of violence, facilities and providers should work with clients to determine the appropriate level of involvement of partners or other family members. Additionally, SAMHSA notes that FCSUT may also be flexible and adaptable and may empower parents to create a safe, stable, and nurturing environment for their children and families. FCSUT facilities may need to tailor their policies regarding family member involvement in treatment by the individual client in order provide them with the most beneficial services for them and their families. FCSUT facilities may also need to consider the age of the children at the facilities to offer developmentally appropriate activities for the children, as well as parenting classes for parents, which may allow pregnant and postpartum people and their children to feel a sense of safety and belonging while in treatment.

Our findings indicated that some participants reported a lack of involvement of fathers in the FCSUT programs, suggesting that not all FCSUT programs involve fathers or male partners. For some programs, we found that these restrictions were driven by standard policies that did not allow clients to contact family or friends during a prespecified period of time or the desire for women-specific or women-only treatment (often driven by the facility's view that this maintains client safety). The role of fathers and male partners in family structure has changed substantially in the last decade. Fathers and male partners have the ability to offer both social-emotional and financial support to their families, and contribute to household responsibilities (Gavin et al., 2002). Research suggests that children

who have greater positive father involvement have better social, developmental, and health outcomes (Adamsons & Johnson, 2013; Gavin et al., 2002). Family-centered approaches to substance use treatment seek to engage and educate all members of the family, including fathers and partners (National Center on Substance Abuse and Child Welfare, 2021; Werner et al., 2007). Yet, some programs work to exclude fathers and male partners from mothers' SUD treatment (Heimdahl & Karlsson, 2016), reinforcing outdated notions that parenthood is not important to fathers and fathers are not important to their children or co-parents. Most FCSUT programs focus on the treatment of mothers (Milligan et al., 2020), and data from this study were limited to discussion of father involvement. However, these findings could also extend to other types of intimate relationships (e.g., same-sex couples, other gender identities), and there may be benefits to further investigation to understand how fathers and male or same-sex partners can be more involved in treatment and developing and implementing FCSUT that incorporates fathers and partners as active participants in the family treatment.

### 4.1. Limitations

While we were able to recruit a sample of pregnant and postpartum people who had either recently received FCSUT services or were currently receiving FCSUT services at facilities across the U.S., the generalizability of our study findings is limited to our study sample, and we are unable to extrapolate patterns in neither the study setting nor in facilities across the country. Our study does, however, offer a unique perspective into FCSUT services from both clients and providers. Our sample consisted primarily of white, non-Hispanic participants who identified as female. Further research with larger, more diverse samples of pregnant and postpartum people, including gender nonconforming persons, and program administrators could provide additional data as to which services are the most effective in preventing the intergenerational transmission of ACEs. Additionally, this study did not assess individuals' past experience with SUDs or ACEs, which may warrant further research.

## 5. Conclusion

Family-centered approaches to substance use treatment provide a wide range of preventative services to the individual and their family members that focus on improving outcomes for parents, children, and other family members (National Center on Substance Abuse and Child Welfare, 2021). In turn, FCSUT may prevent ACEs and their transmission from generation to generation (Centers for Disease Control and Prevention, 2019; Zhang et al., 2023). Pregnancy and the postpartum period may be an opportune time for FCSUT to provide early intervention to disrupt the intergenerational transmission of ACEs. This study identified perceived benefits of FCSUT, including improving parenting and communication skills, promoting healthy relationships with infants and other children, partners, and other family members, and facilitating a support system for long-term recovery. However, programs may face barriers in integrating family members, specifically young children and fathers and/or partners, into care. Additionally, pregnant and postpartum people may have difficulties accessing and/or engaging in treatment when families are not fully integrated. Meeting the needs of all members of a family affected by SUDs and strengthening families may help

to disrupt the intergenerational transmission of ACEs through creating safe, stable, and nurturing relationships and environments for children and their families.

## Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

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## Data availability

The data that has been used is confidential.

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## Table 1

Sociodemographic characteristics of pregnant and postpartum people and administrators and providers who participated in in-depth interviews.

| | Pregnant and postpartum people (*n* = 27) | | Administrators and providers (*n* = 26) | |
|---|---|---|---|---|
| | **Frequency** | **Percent** | **Frequency** | **Percent** |
| Age | | | | |
| 18–24 years | 0 | 0 | 2 | 7.7 |
| 25–34 years | 11 | 40.7 | 4 | 15.4 |
| 35–44 years | 16 | 59.2 | 9 | 34.6 |
| 45–50 years | 0 | 0 | 4 | 15.4 |
| 51 years and older | 0 | 0 | 7 | 26.9 |
| Gender identity | | | | |
| Female | 26 | 96.3 | 25 | 96.2 |
| Male | 0 | 0 | 1 | 3.9 |
| None of these | 1 | 3.7 | 0 | 0 |
| Race * | | | | |
| White | 22 | 81.5 | 20 | 76.9 |
| Black or African American | 5 | 18.5 | 4 | 15.4 |
| Asian | 2 | 7.4 | 1 | 3.9 |
| American Indian or Alaska Native | 4 | 14.8 | 2 | 7.7 |
| Native Hawaiian or Other Pacific Islander | 3 | 11.1 | 0 | 0 |
| Other race | 1 | 3.7 | 0 | 0 |
| Prefer not to answer | 1 | 3.7 | 1 | 3.9 |
| Ethnicity | | | | |
| Hispanic or Latino | 5 | 18.5 | 5 | 19.2 |
| Not Hispanic or Latino | 21 | 77.8 | 20 | 76.9 |
| Prefer not to answer | 1 | 3.7 | 1 | 3.9 |
| Participants | | | | |
| Currently receiving services | 14 | 51.9 | - | - |
| Previously received services ** | 13 | 48.1 | - | - |
| Supervises/manages programs | - | - | 9 | 34.6 |
| Provides health care services | - | - | 11 | 42.3 |
| Provides other services | - | - | 6 | 23.1 |

Gender Identity was determined using respondents' answers to "Do you currently describe yourself as male, female, or transgender? Response options included male, female, transgender, or none of these.

* Note: Participants could select multiple options. Accordingly, percentages do not sum to 100 %.

** Note: Previously received services were services received within the past two years.