



# The Impact of COVID on Early Intervention Parenting Support for Mothers in Recovery from Substance Use Disorder

Elizabeth Peacock-Chambers<sup>1,2</sup> · Rajapillai L. I. Pillai<sup>3</sup> · Briana L. Jurkowski<sup>2</sup> · Savannah Kangas<sup>4</sup> · Jessica L. Borelli<sup>5</sup> · Emily Feinberg<sup>6</sup> · Amanda Zayde<sup>7</sup> · Amanda F. Lowell<sup>8</sup> · Peter D. Friedmann<sup>9</sup> · Nancy Byatt<sup>10</sup>

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## Abstract

COVID-19 adversely impacted parents with substance use disorders (SUDs) as evidenced by increased overdoses. This study used a qualitative approach to examine COVID's impact on experiences and perceptions of a parenting program designed for mothers in recovery from SUDs, "Mothering from the Inside Out" (MIO), implemented through Early Intervention (EI) home-visiting services. Four EI programs participated in training and implementation of MIO. Subjects included 10 eligible EI providers trained in August 2019 or August 2021 and 11 mothers in recovery from SUDs. More mothers completed MIO during the pandemic compared to before. We conducted inductive thematic analysis of exit interviews and field notes, along with interpretation of process measures of intervention implementation. Initially, the switch to telehealth negatively impacted the provider-parent relationship but made engagement logistically easier for some mothers. Parent and provider participants reported the need for additional psychosocial support due to increased stressors, as well as ways that MIO helped them cope during the pandemic. COVID made EI enrollment of families more difficult in general; however once enrolled, telehealth improved retention in MIO, meeting a critical need during the pandemic.

**Keywords** Home-visiting · Substance use disorders · Parenting · Telehealth · COVID.

## Highlights

- Parents with substance use disorders faced overlapping challenges brought on by the COVID-19 pandemic.
- A parenting program designed for mothers in recovery was deployed via home-visiting services just prior to COVID-19.
- Implementation revealed expected pandemic-related challenges as well as unanticipated benefits for parents and providers.

The coronavirus 2019 (COVID-19) pandemic has had negative reverberations throughout the world. People with

substance use disorders (SUDs) in the United States have been particularly affected, as they experienced an

✉ Elizabeth Peacock-Chambers  
Elizabeth.Peacock-ChambersMD@baystatehealth.org

<sup>1</sup> Department of Pediatrics, UMass Chan Medical School-Baystate, Springfield, MA, USA

<sup>2</sup> Department of Healthcare Delivery and Population Science, UMass Chan Medical School-Baystate, Springfield, MA, USA

<sup>3</sup> Department of Neurology, Boston Children's Hospital, Boston, MA, USA

<sup>4</sup> University of Massachusetts Amherst, Amherst, MA, USA

<sup>5</sup> Department of Psychological Science, University of California Irvine, Irvine, CA, USA

<sup>6</sup> Department of Pediatrics, Boston University Chobanian and Avedisian School of Medicine, Boston, MA, USA

<sup>7</sup> Department of Psychiatry and Behavioral Sciences, Albert Einstein College of Medicine, Montefiore Medical Center, Bronx, NY, USA

<sup>8</sup> Yale Child Study Center, New Haven, CT, USA

<sup>9</sup> Department of Medicine, UMass Chan Medical School-Baystate, Springfield, MA, USA

<sup>10</sup> Department of Psychiatry, UMass Chan Medical School, Worcester, MA, USA

unprecedented rise in overdose-related deaths (AMA, 2022; O'Donnell et al., 2021). Parents have also been disproportionately impacted, experiencing higher rates of burnout and mental health problems compared to non-parents (Bai et al., 2022; Bate et al., 2021; Lai et al., 2022; Seo & Kim, 2022; Westrupp et al., 2021). Pregnant and parenting individuals with SUDs faced significant barriers to care during the pandemic, including decreased SUD treatment and childcare services that occurred in an effort to reduce coronavirus transmission (White et al., 2022), resulting in a pronounced increase in drug-related mortality in 2020 (Bruzelius & Martins, 2022). We need a greater understanding of how to best support families affected by SUD when facing such crises.

Maternal-child home-visiting programs are an important source of support for pregnant and parenting individuals with SUDs and their children (Dauber et al., 2017; O'Malley et al., 2021; St. Pierre & Layzer, 1999). The Individuals with Disabilities Education Act established federal funding for Part C Early Intervention (EI) services to assist parents and children under three years of age who have or are at risk for disabilities or developmental delay (CDC, 2022). These services provide home- or center-based developmental support to families across the country. Substance-exposed newborns are at heightened risk for developmental delay and often qualify for EI services.

However, EI services were dramatically affected by COVID, given the inability to connect with families in the home (Vilaseca et al., 2021). For example, Massachusetts observed marked reductions in the number of children served and hours of service delivery in 2020 and continuing into 2021 (<https://www.mass.gov/info-details/early-intervention-data-and-reports>). As with other healthcare services (Agazzi et al., 2022; Roben et al., 2022), the Massachusetts Department of Public Health transitioned EI programs to telehealth to minimize coronavirus transmission, likely having significant effects on service delivery and the experiences of families receiving these services (Cheung et al., 2023).

To meet the unique needs of families affected by SUDs (Suchman et al., 2004; Suchman et al., 2006), we began collaborating with EI in 2017, well before the onset of COVID-19. Our goal was to integrate a parenting program, “Mothering from the Inside Out” (MIO), into existing EI services. MIO is a reflective, attachment-based parenting support program tailored to meet the needs of mothers or other primary caregivers with SUDs, delivered to parents in recovery via 12 one-on-one sessions. The goal of MIO is to build the parents’ capacity to reflect and make sense of their own and others’ behaviors in terms of underlying emotions, thoughts, and intentions. MIO was developed for integration into SUD treatment settings. The efficacy of MIO in improving maternal mental health outcomes and parent-

child interactions has been demonstrated in several randomized controlled trials when delivered by research clinicians (Suchman et al., 2018; Suchman et al., 2011a, 2011b; Suchman et al., 2017; Suchman et al., 2016). In addition, community-based SUD treatment counselors and mental health professionals have been previously trained to deliver MIO with fidelity (Suchman et al., 2020; Suchman et al., 2020). Although there have been no effectiveness trials of MIO to date, pilot studies have assessed its feasibility and acceptability in community settings (Roosa Ordway et al., 2018; Suchman et al., 2020).

We conducted formative research to inform adaptation of MIO for the EI setting between fall of 2017 and spring of 2019 (Lowell et al., 2023; Peacock-Chambers et al., 2023). This pilot study represents the first implementation of MIO through EI home-visiting programs. However, COVID disrupted the training and implementation period causing MIO providers to switch to telehealth midway through the training or to complete their training entirely via virtual platforms. We aimed to answer the following research questions: (1) From the perspectives of both providers and mothers, how did the pandemic impact the implementation of MIO? (2) What challenges did the pandemic create for implementation of MIO? Such findings may inform future treatment development and implementation for families affected by SUDs.

## Methods

### Overview

The study was conducted with four EI programs across the western part of Massachusetts. The EI programs served urban, suburban, and rural populations. Study participants included EI providers undergoing training in and delivery of MIO, and mothers with SUDs receiving MIO. We henceforth limit our description to primary caregivers that self-identify as ‘mothers’ given the intentional design of MIO to address the needs of this population and the inclusion criteria for this study. The study was approved by the Baystate Medical Center Institutional Review Board. Interested providers from the four EI programs who met eligibility criteria completed informed consent and baseline assessments prior to beginning MIO training.

### Intervention

MIO is a brief evidence-based intervention that addresses challenges faced by parents in recovery from SUDs. The focus of MIO is to improve parent-child attachment and support a parent’s recovery through the process of fostering *mentalization* (i.e., building the capacity to reflect and make

sense of one's own and others' behaviors in terms of underlying mental states) (Fonagy et al., 2006; Fonagy et al., 1991). Key components include fostering a strong therapeutic relationship; facilitating the mother's capacity to mentalize for herself and her children; providing attachment-based developmental guidance; and embodying a curious, collaborative, and not-knowing therapeutic stance (Lowell et al., 2021). In clinical trials, MIO resulted in reduced substance use and depression, improved caregiving, and enhanced child attachment (Suchman et al., 2011a; Suchman et al., 2017). Community-based SUD clinicians have delivered MIO with good fidelity (Suchman et al., 2018). MIO training includes both didactic and clinical consultation, providing interactive opportunities to discuss, observe, and practice techniques prior to delivery, as well as weekly group clinical consultation where providers share audio from MIO sessions for feedback and reflective supervision from PhD/PsyD psychologists (A.F.L and A.Z) with expertise in MIO. As described in detail elsewhere, didactic training typically lasts 16 hours total and consultation duration is 60–90 minute weekly sessions over approximately 20 weeks (Peacock-Chambers et al., 2023; Suchman et al., 2018).

### Implementation of MIO in the EI Setting

Our research team began collaboration with one EI program through a mutual desire to improve supports for infants and young children affected by SUDs. The study team conducted formative research with EI providers as study participants to inform adaptation of MIO delivery for home-visiting services. Guided by the EPIS (Exploration, Preparation, Implementation, Sustainment) implementation science framework (Aarons et al., 2011), we sought to understand the local context of SUD treatment services for mothers as well as their engagement in EI (Peacock-Chambers et al., 2020; Peacock-Chambers et al., 2019). We next gathered community input on potential barriers and facilitators to integration (Lowell et al., 2023), and convened an Advisory Panel to guide adaptation of the delivery process (Peacock-Chambers et al., 2023). EI providers both participated in interviews and served on the Advisory Panel as well as the study team, informing the subsequent adaptations. As detailed elsewhere (Peacock-Chambers et al., 2023), modifications focused on the training and delivery process to support psychological safety of mothers and provide better fit for implementation in EI and the home-visiting setting, while leaving the 12-session intervention itself essentially unchanged. Adjustments to virtual didactic training were made in real time with input from expert trainers, EI agencies, and EI providers. Consultation remained virtual pre and during the pandemic. The transition to delivery of MIO and EI services via telehealth was implemented by each EI

program in accordance with the guidelines set forth by the Massachusetts Department of Public Health. Trainers supported MIO counselors in adjusting to telehealth delivery of MIO during consultation sessions.

### Participants

EI providers were informed about the MIO training and study from their program directors and were eligible to participate if they were employed in the participating programs for a minimum of 3 months, had degrees related to mental health, and had administrative approval to participate. Mothers with children already enrolled in participating EI programs were informed about the study via flyers and referrals by EI providers. Mothers may also have learned about the study via outreach conducted by the study team and flyers shared by community agencies and hospitals. Mothers were eligible to participate if they were English-speaking, 18 years or older, were in recovery from SUD with a formal recovery support in place (including but not limited to recovery coaches, support groups specific to people in recovery, medication for SUD), and had a child under 2.5 years old enrolled in or willing and eligible to enroll the child in one of the participating EI programs. Mothers that did not have custody of their children were eligible if working towards reunification but were excluded if moving toward permanent adoption placements.

### Measures and Data Analysis

We used a qualitative approach to data collection and analysis. Sources of qualitative data included field notes, surveys, and exit interviews. The PI (E.P.C) or study team member (B.L.J) attended all consultation sessions and kept typed field notes of their observations. Participants completed a survey after the didactic training with open-ended questions regarding overall impressions, most and least helpful aspects of the training, and how it could be improved. Participants then met with the study team to complete semi-structured qualitative exit interviews (duration range 10–42 min) and provide feedback at the conclusion of their clinical consultation. The exit interview guide questions related to the impact of COVID on MIO implementation can be found in Table 1.

Interviews were audio-recorded and transcribed verbatim. Transcripts were coded independently by two individuals (B.L.J and S.K) for both inductive and deductive analytic codes. Deductive codes and thematic analysis were guided by the EPIS implementation framework (Aarons et al., 2011). Themes were iteratively identified through rapid content analysis and triangulated with field notes. A descriptive thematic analysis, themes, and sub-themes are reported below.

**Table 1** COVID-Related Questions from Parent and Provider Exit Interview Guides**Parent Exit Interview Guide**

We're interested in understanding the impact that the pandemic has had on your experience with the MIO program:

1. How has COVID-19 affected your experience with the program? Either positively or negatively.

Probes:

- a. How has the COVID-19 pandemic affected your ability to stay involved with the program? Has it made scheduling harder or easier?
- b. How was the transition to virtual or phone sessions? How did you find the in-person sessions compared to the virtual sessions?

**Provider Exit Interview Guide**

We're interested in understanding the impact that the pandemic has had on your experience with the MIO program:

1. How has COVID-19 affected your experience with the program? Either positively or negatively.

Probes:

- a. How has the COVID-19 pandemic affected your ability to deliver the program?
  - b. Were there any adjustments that you made that seemed to help address any challenges?
2. How was the transition to virtual or phone sessions? How did you find the in-person sessions compared to the virtual sessions? How has your workflow changed?

Additionally, descriptive statistics were used to report participant characteristics obtained from demographic questionnaires, see Table 1. Demographic questionnaires were completed prior to initiating the MIO training (Harris et al., 2019). Process measures were collected to describe timing and duration of the training as well as engagement of families. All data were entered into REDCap. Method of delivery (in-person versus telehealth) and duration of intervention were also described. Qualitative findings informed interpretation of the process and other quantitative measures with respect to implementation of MIO.

## Results

### Process Measures

Ten EI providers and 11 mothers enrolled in the study. Of the 10 providers, 9 completed the classroom training, and 4 went on to complete the clinical training. Of the 11 mothers, 6 completed the MIO program as defined by completion of  $\geq 8$  MIO sessions (Lowell et al., 2021). The 5 mothers that did not complete the program participated in 0-2 MIO sessions. Characteristics of the study participants are shared in Table 2.

Of the 10 total enrolled providers, 4 participated in an in-person training in August 2019, whereas 6 participated in a

virtual training in August 2020 (after the COVID shutdown). Of the 11 total enrolled mothers, 6 enrolled in MIO pre-COVID (between January and March 10, 2020), and 5 enrolled between May 2020 and January 2021. Two of the 6 mothers that enrolled pre-COVID completed the program, which included a transition from in-person to telehealth sessions; in contrast, 4 of the 5 mothers that enrolled during COVID completed the program fully virtual. Parents completed the program after 8 or more sessions. The training timeline and duration of MIO delivery are shared in Fig. 1.

### Qualitative Analysis

Four major themes emerged related to the impact of COVID on the MIO program training and delivery: (1) Impact of COVID on mothers, (2) impact of COVID on providers, (3) challenges to delivering MIO during COVID, and (4) unanticipated benefits of MIO during COVID.

#### Theme 1: Impact of COVID on mothers

In general, COVID had a negative impact on the mothers enrolled in our study. One mother reflected on the financial impact that COVID had on her family when the governor ordered the closure of hotels, including the one where she was residing. The hotel owner required an up-front payment for her to stay: "I emptied my bank account, like this is all my apartment money. I walked into the hotel to pay it... Watching that go down from \$2,000 to nothing is hard." Yet, this same mother described a realization that the fear other people experienced of COVID mirrored the fear she had experienced her whole life: "I've lived in such a place of fear and place of social isolation, I feel like there's finally something I'm prepared for." However, despite her experience with chronic stress, the loss of critical recovery supports presented a new challenge: "All the [recovery] groups I was going to for support were taken away." (Field notes, March 26, 2020).

Additionally, providers noticed the impact that COVID had on the mothers receiving MIO not only financially, but in terms of exacerbating challenging family dynamics: "All of a sudden [the mother I am doing MIO with] had a huge change in her circumstances and wasn't working and was at home... She got really stressed about being home and then stopped making contact." Both parents and providers in this study described increased stress among their family relationships especially in the early days of the pandemic.

#### Theme 2: Impact of COVID on providers

COVID also had a negative impact on participating EI providers. Providers faced both personal and job-related stress as a result of the pandemic. One EI agency enrolled in our study made the difficult transition to telehealth visits within one week

**Table 2** Characteristics of Participants in the Mothering from the Inside Out (MIO) Intervention

Parents			
Category	Total ( <i>n</i> = 11) <i>n</i> (%) or range (mean)	Completed MIO ( <i>n</i> = 6) <i>n</i> (%) or range (mean)	MIO incomplete ( <i>n</i> = 5) <i>n</i> (%) or range (mean)
Age (years)	19–37 (30.5)	19–37 (30.2)	21–37 (31.0)
Race/ethnicity			
Caucasian/White (non-Hispanic)	9 (81.8)	5 (83.3)	4 (80)
African American/ Black (non- Hispanic)	1 (9.1)	1 (16.7)	0 (0)
Hispanic/Latino	1 (9.1)	0 (0)	1 (20)
Asian	0 (0)	0 (0)	0 (0)
Native American	1 (9.1)	1 (16.7)	0 (0)
Highest education level			
9th grade	1 (9.1)	0 (0)	1 (20)
General Educational Development (GED)	2 (18.2)	1 (16.7)	1 (20)
Some college	7 (63.6)	5 (83.3)	2 (40)
College graduate	1 (9.1)	0 (0)	1 (20)
Marital situation			
Single	4 (36.4)	0 (0)	4 (80)
Married	2 (18.2)	1 (16.7)	1 (20)
Live-in partner	5 (45.5)	5 (83.3)	0 (0)
Housing situation			
Rent or own home	8 (72.7)	5 (83.3)	3 (60)
Friend/family	3 (27.3)	1 (16.7)	2 (40)
Drug of choice for getting high			
Heroin	9 (81.8)	5 (83.3)	4 (80)
Street fentanyl or carfentanil powder	3 (27.3)	2 (33.3)	1 (20)
Opiate painkillers	2 (18.2)	2 (33.3)	0 (0)
Cocaine or crack	5 (45.5)	3 (50)	2 (40)
Gabapentin	2 (18.2)	1 (16.7)	1 (20)
Marijuana/cannabis	2 (18.2)	1 (16.7)	1 (20)
Number of children	1–6 (2.1)	1–6 (2.2)	1–4 (2.0)
Number of children living in home	1–3 (1.5)	1–2 (1.2)	1–3 (2.0)
Number of adults living in home	1–4 (2.4)	2–4 (2.7)	1–3 (2.0)
Age of child enrolled in study (months)	1–28 (14.1)	1–27 (7.7)	14–28 (21.8)
Other Early Intervention services			
Physical therapy	2 (18.2)	1 (16.7)	1 (20)

**Table 2** (continued)

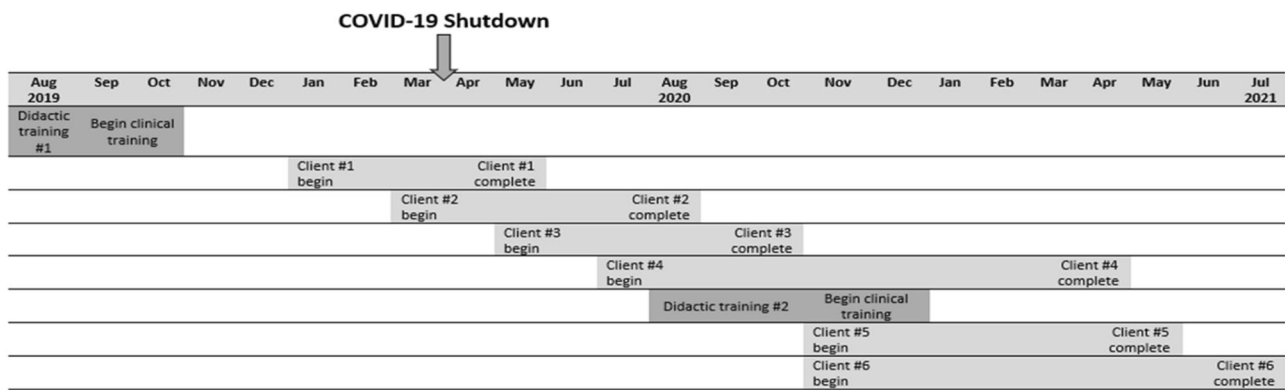
Parents			
Category	Total ( <i>n</i> = 11) <i>n</i> (%) or range (mean)	Completed MIO ( <i>n</i> = 6) <i>n</i> (%) or range (mean)	MIO incomplete ( <i>n</i> = 5) <i>n</i> (%) or range (mean)
Speech	3 (27.3)	1 (16.7)	2 (40)
Child development	3 (27.3)	2 (33.3)	1 (20)
Other (play group, follow-up)	3 (27.3)	1 (16.7)	2 (40)
Providers			
Category	Total ( <i>n</i> = 10) <i>n</i> (%) or range (mean)	Completed training ( <i>n</i> = 4) <i>n</i> (%) or range (mean)	Training incomplete ( <i>n</i> = 6) <i>n</i> (%) or range (mean)
Age (years)	28–58 (38.9)	34–58 (41.5)	28–47 (37.2)
Race/ethnicity			
Caucasian/White (non-Hispanic)	9 (90)	4 (100)	5 (83.3)
African American/ Black (non- Hispanic)	0 (0)	0 (0)	0 (0)
Hispanic/Latino	1 (10)	0 (0)	1 (16.7)
Asian	0 (0)	0 (0)	0 (0)
Native American	0 (0)	0 (0)	0 (0)
Female gender	10 (100)	4 (100)	6 (100)
Highest degree category			
Bachelors	2 (20)	0 (0)	2 (33.3)
Masters	8 (80)	4 (100)	4 (66.7)
Number of years working in Early Intervention	0.83–14 (6.9)	3.5–14 (9.9)	0.83–13 (5.0)

of the March 13<sup>th</sup> shutdown. Providing adequate support to the EI professionals in the first months of the pandemic proved exceedingly difficult: “As a support person, no I don’t feel like I have enough support.” (Field notes, March 26, 2020).

Each week during clinical consultation, the study team checked in with providers to see how they were doing. In April 2020, one provider noted her self-care routine consisted of “Netflix [and] ice cream... at night,” in addition to regularly checking in with friends. Another provider shared that she had been meditating and doing yoga, and “crying when I need to.”

**Theme 3: Challenges to delivering MIO during COVID**

Many challenges around completion of the MIO training and program arose for both parents and providers specific to



**Fig. 1** Training Timeline. 11 parents enrolled. Completed training ( $n = 6$ ); 4 completed 12 sessions, 2 completed 8 sessions. Incomplete training ( $n = 5$ ); 5 completed 0-2 sessions (4 pre-COVID, 1 during COVID)

COVID-related changes. The pandemic had a significant impact on EI programs overall, quickly making the switch to telehealth visits, resulting in the need to set up remote desktops for all staff and move all sessions to virtual platforms. One provider described feeling extremely overwhelmed as they were unable to contact about half of their families, and half of the EI staff at their agency was on leave. Many of the providers were not yet familiar with telehealth technology and struggled to engage families with young children via telephone and video. One provider stated:

I know every [EI] program has been handling this very, very differently... and then there is us, we are still trying to do everything. Can we do everything?... We would talk about [it] every week in our staff meeting, how to engage families via telehealth, because it is not at all what we do.

By the middle of April, one provider reported getting her “bearings” with telehealth and feeling grateful to be a mental health provider, compared to other EI specialists who were still struggling to engage families in telehealth: “[It] helps me to help somebody else.” She also noted that some families were “reconnecting” and reaching back out to EI.

Still providers wondered whether the delivery of MIO during the pandemic affected their experience, as well as those of the mothers receiving MIO.

But you do kind of wonder again... going back to the ability to mentalize while under stress, because [COVID] was kind of a prolonged potentially traumatic type of toxic stress for a lot of people, so I do kind of wonder you know, did that affect the work that we were doing? Did it affect our ability to

mentalize for ourselves while we were trying to stressfully navigate this?

Providers also reported “disconnect” in terms of communication and rapport building over the virtual platforms, representing a challenge in the context of an intervention whose primary focus is fostering a therapeutic relationship. Furthermore, they found that COVID or the need for concrete resources was often the urgent topic of conversation. They still reported “processing” these stressors with families, but also wondered how it might have been different if not for COVID.

Mothers echoed these concerns with one mother describing her own discomfort and adjustment within the therapeutic relationship when transitioning MIO sessions to phone:

In the beginning, I might have withdrawn a little bit. I think... I probably wouldn't have picked up the phone anymore, honestly. But since I was already comfortable with her and had met with her in-person a few times, it was okay.

Having established a strong therapeutic relationship prior to the onset of COVID helped her feel more comfortable with the transition to telephone visits.

Another mother reflected on how difficult it was to complete her MIO sessions as a result of always having children at home after she was forced to leave her retail job: “[The sessions are] just too hard with the children and with everyone around the house. I can't really share with people listening.” This is a challenge because the MIO intervention requires open sharing and creating a safe environment for vulnerability.

#### Theme 4: Unanticipated benefits of MIO during COVID

Despite the many negative aspects of COVID, both parents and providers did note the benefits that MIO provided

during the pandemic. One provider reflected on MIO strategies in relation to telehealth:

I feel like the MIO strategies lend themselves to telehealth really well and I think just having... the basic dyadic and triadic strategy embedded in this model, I think if more EI folks had that, they would have been able to engage families better in telehealth.

Another provider found the timing of the MIO training and learning MIO principles personally useful in her own life during COVID:

I mean, to be completely honest, I really feel like it came at a good time for me to learn [MIO] as, like an individual and as a parent as well... Because you know, [COVID] was a really hard time. I have two small kids at home too, and I felt like it gave me some tools to also share with my husband... you teach these things to other people... but when it's you, it's sometimes harder, and so I really feel like it was a perfect time for me to learn some of those skills in such a challenging time for my family too.

Many parents enjoyed receiving MIO via telehealth: "I mean, I prefer [MIO] over Zoom... I think it was easier that way... I didn't have to go anywhere, and they didn't have to go anywhere." Some shared that their EI provider was one of their only sources of adult support and contact during the pandemic.

As described above, more mothers completed the MIO program during COVID than prior to the pandemic, suggesting that the change to telehealth was beneficial to some as described by this mother. One provider reflected that delivering MIO via telehealth when the mother was at home with the children facilitated reflecting on the parent-child relationship: "She's at home with the kids in the background, which is really nice, because it's easier for me to bring in the kids. We've talked a lot more about her relationships with the kids." This is a key component of MIO.

## Discussion

We adapted MIO for implementation in the EI home-visiting setting in the context of COVID. We found significant impact of the pandemic on mothers, providers, and the implementation of MIO. However, there were surprisingly few findings related to COVID's specific impact on the delivery of MIO that did not intersect with broader issues of telehealth use or engagement of families in EI more broadly. In fact, clinicians felt they were capable of delivering MIO well under COVID conditions and even

benefited from MIO in their EI work and personal relationships as well. We found that retention of EI providers was particularly difficult both prior to and during COVID. Interestingly, we found a different pattern for mothers, with 4 out of 5 mothers that enrolled after the shutdown completing the program as opposed to 2 out of 6 parents prior to the shutdown. Mothers may have been more open to receiving or found greater benefit from MIO during COVID. Alternatively, the availability of telehealth may have increased ease of access. Across the identified themes, we observed how telehealth and MIO interacted to impact engagement, and how providers and parents that remained in the program found unexpected benefits.

Participants had mixed responses regarding the ability of telehealth to facilitate engagement, with some stating it was more difficult to establish a therapeutic relationship and others stating that it was easier. This ambivalence has been found in other settings, including in individuals with developmental disabilities (Sanders et al., 2022). In addition to missing unspoken cues that may be picked up in-person, technical difficulty and unstable internet access may present additional barriers to establishing the therapeutic relationship, the foundation of MIO delivery (Cole et al., 2019; Dozier, 2022). While the size of our training cohort limits comparison of training before and after COVID, we did show feasibility of implementing MIO via virtual platforms and some unanticipated benefits.

The general challenges of engagement in EI during this study align with national data from the United States which shows reduced enrollment in EI during COVID (Rhodes & Beers, 2022). Reasons for this decrease in EI enrollment are likely attributable in part to reduced availability of health-care services that could serve to screen at-risk families, as well as hesitance to use telehealth-based services for early childhood developmental support (Cole et al., 2016). Despite these circumstances, EI providers believed that the skills they learned from delivering MIO may have been beneficial to other EI providers as a tool for engaging families in telehealth. Our study illustrates some of the challenges with respect to provider and parent engagement during COVID, but also outlines benefits that can occur once challenges are addressed. Notably, key components of MIO (therapeutic relationship, supporting parents' reflective capacity) may have helped address challenges to engagement.

Given the extreme social and financial stressors that parents described, MIO appeared to provide additional support to parents during the pandemic. Along with serving as a way of engaging families, MIO helped parents reflect on changing family relationships during a stressful time. MIO sessions seemed to benefit providers as well, giving them tools to use in their own personal lives. These findings are consistent with other parenting support interventions

when delivered by telehealth in a group format (Cook et al., 2021; Zayde et al., 2022). Our findings suggest that while there were challenges in execution of MIO, the emotional support provided by MIO was beneficial to patients and providers alike.

Together, these findings can inform future treatment development and implementation for this population to improve access, engagement, and emotional support. During times of excessive stress, mothers in recovery may benefit from more intensive treatment options, like MIO, as well as flexible treatment delivery. However, we note that most of the mothers that did not complete MIO in this pilot were single rather than married or partnered. In contrast, none of the mothers that completed MIO were single. The absence of social support may have made engagement in MIO more challenging for single mothers though our study is too small to draw any conclusions on this observation.

Telehealth may have helped to address some of the logistical challenges and is now being incorporated into ongoing healthcare (Molfenter et al., 2021). Results from our study suggest that telehealth delivery should be considered for parenting interventions as well and will be used in future studies of MIO. There may be some scenarios where uptake and feasibility of an evidence-based practice is improved when families are faced with unexpected external stressors assuming that barriers to access and engagement (both relational and technical) can be addressed. Programs like MIO may help home-visiting providers build rapport with families and enhance engagement in the telehealth platform. Additionally, MIO may have unexpected benefits for providers facing new or stressful conditions via direct effects on their emotional health and greater connection to the families they serve.

## Strengths and Limitations

This study highlights the specific challenges experienced by mothers in recovery from SUDs and the efforts to address these challenges through a parenting program specifically designed for mothers in recovery with young children. As a result of our study design, we find that participants can view certain aspects of the intervention or impact of the pandemic in a contradictory manner, however, we do not see this as a limitation, rather it is a strength demonstrating our ability to capture a wide range of differing perspectives within a small sample. As a pilot study of an active community-based program, our qualitative analysis is not intended to reach thematic saturation, thus we likely did not capture the full range of experiences and perspectives that families and providers may have on this topic. Our sample is also limited to mothers and English-speakers, and we did not elicit perspectives from other family members. Finally, we did

not report on the intervention fidelity, an important topic of future and ongoing research.

## Conclusion

Although COVID-19 contributed to challenges related to engaging families in EI and delivering the EI-based MIO program, MIO delivery was feasible among mothers in recovery from SUDs. In some cases, telehealth delivery was preferred despite the fact that home-visiting programs already address many logistical challenges for parents of young children compared to clinic-based services. More mothers completed MIO during COVID than prior to the pandemic. While participants faced immense COVID-related stressors, they described the specific ways that MIO was particularly helpful during these challenging times. Telehealth-based implementation of parenting supports for families affected by SUDs can provide increased access and flexibility for those with the necessary technology and may be particularly important during periods of increased community-wide stress.

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## Compliance with Ethical Standards

**Conflict of Interest** Dr. Byatt has received salary and/or funding support from the Massachusetts Department of Mental Health via the Massachusetts Child Psychiatry Access Program for Moms (MCPAP for Moms). She is also the Medical Director of Research and Evaluation for MCPAP for Moms and the Executive Director of the Lifeline for Families Center at UMass Chan Medical School. She has served on the Medscape Steering Committee on Clinical Advances in Postpartum Depression. She received honoraria from Global Learning Collaborative, Medscape, and Mathematica. She has also served as a consultant for The Kinetix Group. The other authors have indicated they have no potential conflicts of interest to disclose.

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