Mothers & Babies: An Intervention to Prevent Postpartum Depression

Steve Shuman: Now, we can begin. And let me introduce today's speaker, Dr. Darius Tandon. Darius?

Darius Tandon: Thanks so much, Steve, and hello to the 823 and growing number of participants who are joining today. I'll just echo what Steve said, really delighted to have such a large group from all over the U.S. and territories joining in for the webinar today. And I always love doing presentations on the topic that I'm presenting on today, "Mothers and Babies."

Many of you may have heard the webinar that I did a few weeks ago talking more broadly about maternal depression. And I talked a little bit about "Mothers and Babies," but "Mothers and Babies" is certainly near and dear to my heart. It is an intervention, as the title slide says, that is focused on preventing postpartum depression. And much of my work over the last 10 plus years has really been focused on developing, testing, and trying to innovate "Mothers and Babies," and really look forward to the next 55 minutes or so sharing some of that work and hearing some of your questions at the end of the talk today.

That is me. Just a little bit in the way of background. I'm faculty at Northwestern's School of Medicine. I'm a psychologist by training. Have done a lot of work over the years, both now at Northwestern and previously when I was at Johns Hopkins, working closely with early childhood programs, particularly home visiting programs. One of the other things that is also really near and dear to my heart is the idea of working very closely with service providers like all of you to really bring interventions like "Mothers and Babies" into your settings so that you're able to address the mental health needs of the families that you're serving.

I always like to start with this slide when I'm presenting on "Mothers and Babies." This really speaks to some of our guiding principles of our work, our North Star. What guides us? We really believe that mental health services and supports should be all of these things – widely available, easy to access, affordable, non-stigmatizing, and effective. And that is where we are coming from in our "Mothers and Babies" work.

We are really trying now and in the future, as we keep innovating, to stay true to these principles of making the intervention accessible, available, et cetera. Really look forward to having conversations with some of you who may be interested in bringing on our intervention into your setting because we really do want to keep promoting its scaling around the United States.

A little bit of background about the intervention. "Mothers and Babies" is a manualized intervention. That's a fancy way of saying we've got it all laid out on paper, right. It's a manualized intervention based on principles of Cognitive Behavioral Therapy – CBT – and attachment theory. If you were to take a look at our manuals, you would see that it is – the intervention is heavily guided by CBT and attachment theory, and we're going to talk a little bit more about both of those in a few minutes.

We've done quite a bit of research on the "Mothers and Babies" intervention, and what do we know about the intervention based on those studies? We know that it is effective in reducing

depressive symptoms, preventing new cases of postpartum depression ... And I also have a bullet point here saying that in 2019, so about two years ago, the United States Preventive Services Task Force did a review of all of the interventions focused on preventing postpartum depression and noted "Mothers and Babies" as one of the two most effective interventions for preventing postpartum depression. Really a lot of evidence that the intervention is effective.

And I should not neglect to say that as we're doing our research, we also ask other types of questions of individuals who are engaging in the intervention. And those questions are really about the acceptability and the appropriateness of the intervention. And what we find is overwhelmingly, individuals who are receiving "Mothers and Babies" say that they understand the material, they enjoy the material, and perhaps most importantly, feel like the skills that they are receiving in "Mothers and Babies" are skills that they can use in their daily life. Really a lot of positive feedback from the families who are receiving the intervention that this is an intervention that really feels right to them and is useful.

The last bullet point is an important one for me to highlight. Even though a lot of our research has focused on depression and postpartum depression as an outcome, as we introduce "Mothers and Babies" to families, we really don't introduce it as a postpartum depression intervention. We refer to it as a stress reduction intervention. And again, for those of you who tuned in to the last webinar that I did ... And again, I'm preaching to the choir here, you know that language around depression and depression prevention is probably stigmatizing.

But focusing on stress and stress reduction and highlighting that everybody has stress really is the way that we approach "Mothers and Babies". And we really start the intervention by talking about stress and stress reduction as a primary goal.

What's the need for "Mothers and Babies"? We know that there is a large proportion of pregnant individuals and new mothers who are at risk for developing – and now I'm saying – perinatal depression. Let me just do a quick sort of check-in on terminology. When I'm referring to postpartum depression, I am referring to depression after delivery in the first year of a child's life. When I refer to perinatal, I'm referring to depression in that postpartum period, but also during pregnancy. It's a subtle distinction, but an important one, and I may go back and forth in talking postpartum, perinatal. And again, perinatal is pregnancy and the first year, postpartum is just that first year.

We know that there is a large number of pregnant individuals and new mothers who are at risk for developing perinatal depression. We know that about 30% to 45% of low-income women experience elevated depressive symptoms during pregnancy, and we know that that is a leading predictor of developing depression after delivery. We also know that there are other risk factors, including low social support, teen parenthood, single parenthood, that are strong predictors of developing postpartum depression. Probably the other main risk factor that I haven't listed here is one's own personal history of depression. If you have a history of depression, whether it's with a previous childbirth or outside of childbirth, that is also a strong predictor that you may experience depression again.

Perinatal depression has a two-generation effect. Again, this is something that I'm sure resonates with all of you, that depressed mothers have less workplace productivity, greater

recurrence of depression later in life, less positive interaction with their children. Depression impacts mom. But depression also impacts their children, right. We know, and there's growing evidence that children of depressed mothers exhibit poor birth outcomes, they have higher rates of abuse, neglect, less readiness for school. Those are just a handful of outcomes that we see.

The reason that I talk about two-generation is, as we're doing work to intervene with mothers as part of "Mothers and Babies," yes, a primary focus is on maternal mental health, but we know that that is also going to benefit the child in terms of the relationship that mom has with the child and also some of these other health outcomes for the child.

"Mothers and Babies" is an intervention that we attempt to integrate into existing services. Most health and social service providers, including Head Start and Early Head Start, really the focus is on referring women to existing resources. And these existing resources, like community mental health providers, primary care physicians, they tend to be external mental health resources, so outside of your agency. And we know that there are barriers to accessing those external mental health resources – waitlist for services, cost, stigma, transportation, and frankly, previous negative experiences. Many of your families may have seen a therapist, may have seen a clinician, and it may have been a really bad experience.

Most early childhood programs also focus on women currently needing depression treatment, despite the fact that elevated symptoms have similar adverse two-generation outcomes. What are the points that I'm trying to make here? A couple of things. That second bullet point about treatment, we often focus on just individuals who already are experiencing depression. But we know that individuals who are at risk for developing postpartum depression, number one, we want to prevent them from developing full-blown postpartum depression. But we also know that even those elevated symptoms are likely to have negative two-generation effects, and so we want to intervene with those families.

Because there are barriers to external resources, and sometimes programs do not have the ability to focus on referring everyone to external resources, we have really designed again "Mothers and Babies" to be an in-house intervention that can be integrated into health and social services, so home visiting programs, family support programs.

There is a good deal of synergy between "Mothers and Babies" and early childhood programs. And these bullet points just speak to some of the areas that we know from previous experience working with early childhood programs. They say, yeah, this is where there's a synergy. "Mothers and Babies" builds capacity of programs to address mental health internally. Instead of relying on that external referral, programs able to have something internal that they can provide to their families.

For programs that receive funding from MIECHV, the Maternal, Infant, and Early Childhood Home Visiting initiative, "Mothers and Babies" is now approved as a completed depression referral. Until a few years ago, if somebody were to be screening positive on an Edinburgh or another screener for depression, service providers would have to refer to an external provider. But recognizing some of the barriers and challenges you saw in the previous slide, HRSA has now said referral to "Mothers and Babies" will count as a completed depression referral if you are a MIECHV funded program.

"Mothers and Babies" is low-cost. I will talk a little bit more about that later. "Mothers and Babies" builds on the relationship between programs and families, right. Instead of being referred to a therapist that you may not have a relationship with, "Mothers and Babies" is typically delivered by a facilitator, a home visitor, a family support provider that a family member already has a relationship with. And finally, "Mothers and Babies" addresses a challenge – maternal depression – to home visiting or early childhood service delivery.

Let's start to talk a little bit more about the intervention itself. Again, multiple randomized controlled trials that have demonstrated the intervention's effectiveness using both a group modality and a 1-on-1 modality. At the bottom, this little table shows you the differences. Initially, "Mothers and Babies" was developed as a group intervention. The group intervention consists of six sessions, and each session lasts about 90 minutes. And we also have a 1-on-1 modality, which is exactly what it sounds like. It is a facilitator delivering the intervention individually to a family. And the 1-on-1 modality of "Mothers and Babies" consists of nine sessions, and each of those sessions lasts 20 to 25 minutes.

With the group modality, obviously, 90 minutes is something that takes a fair amount of time. If you were to be implementing the group modality, you would need to think about figuring out a time to deliver the intervention to a group of your clients. With the 1-on-1 modality, what we typically see is that early childhood programs will just integrate this into their existing service delivery. If you are seeing a client in the home or at your center and spending time with them, half an hour or 45 minutes, you could tack on the "Mothers and Babies" 1-on-1 to an existing visit. And that's why we intentionally kept each of these sessions to only 20-25 minutes, so that it could be a manageable add-on to an existing service contact that you have.

In terms of the intervention, I mentioned it was manualized. And again, this is what I mean by manualized – we have an instructor manual, which is used by those delivering the intervention. And we also have a participant manual, which is used by families receiving the intervention. And the participant manual really looks like a series of worksheets, and you're going to see some images from the worksheets in the next few slides.

All of our materials are available at this website, mothersandbabiesprogram.org. They should all be there, both the group modality and the 1-on-1 modality. And important for me to point out that all of our materials, both group and 1-on-1, are available in English and Spanish. We also have some of our materials available in other languages – Creole, Greek, and Arabic. Certainly, if you have questions about the availability in other languages, feel free to contact me – but English and Spanish, as well as Arabic, Creole, and Greek.

What does a session look like? And this is going to be the same regardless of whether you're implementing the group modality or the 1-on-1 modality. The structure of a "Mothers and Babies" session looks like this. For each topic in a session, you will see key points. Those are the main messages for that topic.

Every topic has a script that you can use when communicating material for that topic. And a really important point for me to make, and if you were to be trained on the intervention, you

will hear me reiterate this – we do not want service providers to use the script word for word. We think that that would be very robotic, not very engaging. But the script is there as a roadmap. We really encourage you as service providers to use your own wording, your own phrasing. And again, you have a relationship with the families that you're working with. Use examples that you think are going to be relevant to the families, communicated material for that topic.

"Mothers and Babies" is not just didactic, right. It is not just a facilitator talking at the client. There are interactive learning activities within each session really to help your clients understand the concepts and encourage them to identify examples and situations where they can practice the skills in their daily life. And then finally, each session ends with what we call a personal project. The personal project is not done during the intervention session, but it is something that the client is asked to do between intervention sessions. And really, the idea there is we want families to be practicing the skills between sessions. Really, really important concept with "Mothers and Babies," that it's not just come into the intervention session, but it's also practice between intervention sessions.

Breaking out the curriculum into its modules. Again, regardless of whether you're using the group modality or the 1-on-1 modality, we have these four modules. And I know there's a lot of text on this slide, so I won't read it all. But the important point for me to highlight is that there are four modules.

There's an introductory module, and if you remember, a few slides ago I said, we really frame "Mothers and Babies" as a stress management intervention, so you see here, right from the get-go, what we do is we help clients identify stressors in their life and to understand the relationship between stress and their mood.

And then we get into the cognitive behavioral therapy or CBT content. There are three main CBT modules, and those modules are Pleasant Activities, Thoughts, and Contact with Other People, which includes social support. Again, you see all of those key concepts that are within each of those CBT modules listed here. I won't go into it, it's a lot of text, but the main point here again, is Introductory Module followed by Pleasant Activities, Thoughts, Contact with Others.

What I want to do actually for the next few minutes is show you some examples from the curriculum so you can get a sense of what the curriculum is, get a flavor for some of the content. These are two images that you would see in the participant workbook. And I'm going to see if this works and actually ask folks to perhaps put some of your comments in the chat. We'll see how well that works for us. On the left-hand side, you see two images.

On the top, you see this, what I call a seesaw or a teeter-totter. If folks could just put in the chat, what do you see in that top image on the left-hand side? What are a couple of things that you see in that top image, right? And this is not a trick question.

I see somebody saying too much stress, unbalanced, unbalanced – I'm sorry, it might be a little hard to see. Folks are totally spot on. One of the big things that we want folks to see is the imbalance, right? What's causing the imbalance? It's all of the things that you're putting in the

chat, right. It's the health problems, the family problems, baby might be crying a lot – that's creating the unbalance or imbalance.

All right. Now, on the bottom, you see balance, right? Important point is on the right-hand side, you see the modules of "Mothers and Babies" – Healthy Behaviors, Healthy Thinking, Supportive People. But you don't see those stressors going away. "Mothers and Babies" is a stress management intervention, not a stress removal intervention, right.

It's not really realistic to say that we're going to get rid of all of the stress in your life. I mean, I wish I could get rid of all the stress in my life. That's just not realistic. The idea with these images, and this is done in the very first session, is to start by saying, "Hey, we all have stress in our life. Stress can bring us down. But there are things that we can do."

Again – and these are the "Mothers and Babies" concepts of Healthy Behaviors, Healthy Thinking, Supportive People – that can create that balance even if you still have that stress in your life. That's just an example of imagery from one of our introductory sessions. Again, what everybody is saying, all about balance, learning to manage – yeah, exactly. You guys are picking it up right away. Perfect.

On the right-hand side is another image of something that we use in our intervention, and this is something that we call the Quick Mood Scale. And the Quick Mood Scale is really intended to be a way to help individuals better identify what's going on in their life that affects their mood.

The running joke that I give – I don't know if it's a very good joke, but I say it anyway – when I do trainings on "Mothers and Babies," including webinars like this, is that I'm a psychologist. But as a psychologist, I don't typically go around paying attention to what my mood is on a given day. And that's the same with most people. You might know you're having a better mood or a worse mood, but you're probably not always attuned to what's causing that. Sometimes it's a really sort of acute event, and you know what's causing it.

But the idea with the Quick Mood Scale is to start to encourage families to pay attention to what is affecting their mood. If you were having an average day, you'd rate your mood as a five. If you had a really, really awful, unfortunate event – death of a loved one, you may have lost the job – you would rate yourself as a one. On the flip side, the best mood ever might be getting a job, hitting the lottery, retiring – those would be things that are very rare events.

Again, what we want folks to do is to pay attention to what's going on in a given day and rate their mood. And over time, the Quick Mood Scale is used throughout the curriculum. Initially, when it's introduced, we're just asking folks to identify what's going on in their life. But moving forward, we also add another row at the bottom where we have folks not only pay attention to their mood rating, but also put in, well how many pleasant activities did you do on a day? Or how many positive contacts that you have with someone on a given day.

Those are the ways that we're then going to try to connect those cognitive behavioral modules – Pleasant Activities, Thoughts – to one's mood on a given day. Again, for the purposes of today's webinar, I can't go into a lot more detail, but again, what I'm trying to do is give you a sense of how we're introducing some of the core concepts in the curriculum.

This is something else that you will see in our curriculum. This is the start of our Pleasant Activities module. We have these – we have these vignettes that we refer to as Violet and Mary's days. What you see here with Violet and Mary is that both young ladies in the very beginning say, "I don't want to get up." Their mood is not particularly good.

But what you see with Violet, on the left-hand side, is she continues to stay at home. And at the end of the day, she says, "I'm so sad and lonely." Whereas with Mary, on the right-hand side, she does some pleasurable activities. She takes a shower, she goes shopping, or she talks on the phone with her friend Carmen. She goes shopping and has that companionship.

What we do with these vignettes is we have them at the beginning of each of the CBT modules – Pleasant Activities, Thoughts, Contact with Others – really as a way of trying to visually show how differences can exist in how pleasant activities, thoughts, contact with others might affect your mood. So typically, when we're working with clients, we would have clients maybe read one of the stories, the facilitator might read the other story. If you do it in a group, you could have multiple group members reading the different vignettes.

Also in our Pleasant Activities module, we brainstorm pleasant activities that clients like to do. These aren't the best images, but what you see is a clock with an "X" through it – a dollar sign with an "X" through it – and then you also see mom sitting by herself and mom with a child. And one of the things that we really emphasize when we're talking about pleasant activities is that pleasant activities don't need to take a lot of time. That's the X'd out clock. They don't need to take a lot of money, that's the X'd out dollar sign.

You can also do pleasant activities by yourself or with your child. And that pleasant activity for your child, if you remember I talked about attachment theory early on, that's one way that we can start to promote some of that parent-child interaction again with the curriculum. One of the big things is really trying to get your families to brainstorm additional pleasant activities that they may like to do so that they are able to engage in them, which will improve their mood.

We also, and this is at the bottom of the slide, we acknowledge that it's not always easy to do pleasant activities. There are obstacles. And I'm sure you can think of many obstacles that your families may have – multiple children, not enough time. There could be lots of barriers.

Part of what we do in the Pleasant Activities module is also brainstorm some of the obstacles to doing pleasant activities. And then as a personal project, after we talk about pleasant activities and what some of the obstacles are, we encourage clients to try to schedule one or two pleasant activities between sessions so that they're able to achieve success in doing those pleasurable activities before they come back to the next intervention session.

You saw a little bit from our introductory module. You saw a little bit from our Pleasant Activities module. And now here's something from our Contact with Others module that's really focused on social support. On the left-hand side, you see what we call "My Social Support Network." And what we try to do with this activity is really get family members to think about who exists in my social support network. And we divide them into categories – the people closest to me. That's your BFF, that might be your mother, it might be your sister, if you have a close relationship with her. Then we may have other close friends and family, we may have friends. And then finally, acquaintances or community members. And the point here, a couple things – number one, we want folks to start to think about who is in their support network and also start to think about expanding that support network.

One of the points that we make is, if you rely on that BFF for everything, well, what happens if that BFF moves or gets burned out? There are some limitations to relying on just one or two individuals for all of your social support. What we try to do first off is get folks to identify who's in their support network. And then on the right-hand side, after you've identified those two, five, 12 people, we then want clients to put into these boxes where those individuals fit.

Your best friend may provide all four of these types of support – practical support, advice, companionship, emotional support – whereas another type of supportive individual may only provide practical support, or advice, or information. Your pediatrician or a health care provider, you may go to them for advice or information, but you may not go to them for emotional support. Again, the point here with the social support worksheets that you're seeing here, trying to get clients to think more expansively about who is in their social support network and how those individuals can help them.

What you typically will see is when somebody does these two worksheets, it's now easy to visualize, "Oh, wow, I don't have a lot of people in one of these categories." That might be a prompt for you to think about some additional ways to build support and how to find individuals who can be supportive.

OK, transitioning to the last part of the presentation today about some key considerations for implementing "Mothers and Babies." If you are thinking about "Mothers and Babies" implementation, the first thing to think about is which model you might want to implement. You're going to need to think about which model you want to implement – the 1-on-1 model or the group model. We have some programs around the country that are implementing both and doing it very effectively.

Another key consideration is thinking about who's going to receive the intervention. The easiest way for me to create this dichotomy and what this might look like is – you could do "Mothers and Babies" universally, meaning you do it with your entire caseload of families. And you may do that if you really know that there's a lot of stigma around seeking out external mental health resources. You may be in communities where there just are very few external mental health resources. Universal is certainly something that folks could do.

But you could also be more selective and choose a subset of families. Typically, what we see here is you may use a screening tool. You may be screening on depression, or anxiety, or stress, and based on those criteria, you would determine who receives "Mothers and Babies." There's no one way of deciding who's going to receive the intervention. We always say that this is a decision that you as an agency or as a system will want to decide.

You're also going to need to decide on who's going to deliver the intervention. The important point for me to make here is that you do not have to have any existing formal mental health training. You do not have to be a clinical psychologist or a clinical social worker to deliver "Mothers and Babies."

We have done a lot of work over the last few years focusing on training individuals without formal mental health background on the intervention, and without getting into a lot of the details, actually have data to support the fact that individuals who don't have formal mental health training can deliver the intervention with the same amount of fidelity and get similar outcomes to trained clinicians.

Other key considerations – we really believe that both the group and 1-on-1 on version should ideally be delivered every one to two weeks. And we give flexibility in how the intervention can be delivered – it can be delivered in person; it can be delivered by phone. It could also be delivered virtually. Certainly, over the last 18 months, we have seen most of our trained service providers pivot to virtual delivery, and it has worked just fine.

I mean, obviously, there is a little bit of a change in dynamic in terms of in-person versus virtual, but the point that I want to make is that even before the pandemic, we provided that flexibility – virtual, phone, in-person. Both modalities can be done in all of those ways. And we also encourage if you are delivering the 1-on-1 intervention to think about doubling up on sessions, which can be useful for reaching harder-to-reach families and can also be useful ensuring that families will receive a greater dosage of the intervention.

A couple of other things to consider – fidelity versus adaptation. If you were to be trained in "Mothers and Babies," this is something that we would talk about. We do provide quite a bit of flexibility to service providers to adapt the language. You heard me say that when I was describing our facilitator manual. We want you to actually adapt and to use language, examples, activities that are going to be more relevant and resonate with your families.

Why do we provide that flexibility? It's because if we provide that flexibility, we think that that's going to promote the intervention's acceptability, and we also think it's going to help sustain the intervention at your organization.

All of our manuals are publicly available on our website. There's no cost for delivering the 1-on-1 modality. If you are thinking about delivering the group modality, I would encourage you to think about costs related to transportation. How does one get to a group session? We've done, in the past, anything from providing bus vouchers to providing Uber or Lyft gift cards.

Transportation, I think, is an important consideration. Some organizations have vans who can pick up clients. That could also work. Child care – if mom has other children and doesn't have anybody else to take care of the child, is there a separate room where you might be able to provide child care? Could you provide a child care voucher? And then finally, small snacks or small meals can also be really useful given that clients are typically going to be together for 90 minutes or so.

Women who are receiving the intervention, "Mothers and Babies," can also receive other mental health services. If you were thinking about adopting "Mothers and Babies," that would not mean that you have to push aside anything else that you're doing related to referrals. In fact, we have some clients who start with "Mothers and Babies" and then go on to seek out other mental health services. And then we have some clients who are receiving both "Mothers and Babies" and might be seeing a therapist at the same time. I don't want to give the impression that it's "Mothers and Babies" or nothing else. You can also be receiving other types of mental health services.

In terms of training on the intervention, a day and a half or one-day training is what we require. Even though all of our materials are available on our website for free download, the only thing that I ask is – we really do want to train programs on the intervention. We don't necessarily want folks going rogue and doing it on their own. We really do want training to be scheduled so that our team can provide a more formal introduction to the curriculum and some of the implementation considerations. We can do the training in person or virtual. We've probably done 10 to 12 virtual trainings over the last 18 months, so we're pretty well accustomed to doing that.

We have a cost structure or a fee structure for doing our training and technical assistance. It's really to cover our time. This is not something that we are making money off of, it's really to support the time that our team is spending. And we do use a sliding scale fee for our cost if cost is an issue.

We do want all staff who are planning to implement "Mothers and Babies" and at least one manager or supervisor to attend the training. We also are able to do a train-the-trainer, if we were to do a larger rollout. For example, in the last few months, we've done some larger trainings of the entire state home visiting networks. We've done a train-the-trainer such that we're able to train individuals who could train new service providers who weren't able to attend the initial training.

What does the training include? It includes a detailed overview of the curriculum, more detail than what I provided today, a lot of practice leading activities that we go through the entire curriculum, but you also get a lot of practice leading activities. And we also discuss a lot of implementation logistics. After the training, there's technical assistance, and this typically occurs for 12 months after training. This is led by our Northwestern "Mothers and Babies" team.

Generally speaking, this is the way that we like to think about those 12 months of TA – the first two months are really to identify individuals on your caseload who are going to be receiving the intervention. For those next few months, we don't really encourage folks to go all in and deliver with large numbers of individuals right away, but rather, we encourage each service provider to identify one to three women who they are going to start to deliver "Mothers and Babies" to. Then, in months 10 through 12, we really start to shift more of the focus to, how is "Mothers and Babies" hopefully going to be sustained at your organization?

A couple other slides before I wrap up. Some innovations and enhancements that we have developed in recent years – about three years ago, we received federal funding to develop "Fathers and Babies," which was developed to be delivered at the same time with the 1-on-1 modality of "Mothers and Babies." Now, as we are moving forward, we are also developing it so it could be developed as just a freestanding intervention. Even if mom is not receiving "Mothers and Babies," but dad or the male partner is interested in receiving "Fathers and Babies," he could've received the intervention.

"Fathers and Babies" really has two goals – it wants to improve paternal mental health, but it also has a focus on helping fathers or the male partner support their partner's mental health. We have a lot of technology-based components to the intervention. In fact, the intervention can be delivered almost exclusively via text message.

We do require that the first session be done in person, but then after that – and this is really based on feedback from fathers and service providers – we were told that the best way to ensure that fathers are able to engage and receive intervention content is to allow for this remote or text delivery of the intervention. Fathers will receive text messages, there might be embedded links that they can click on that will take them to an external video or a worksheet. A lot of the intervention delivery can be done by a text message.

We've also done some text message enhancement work separate from "Fathers and Babies" where we have developed text messages that reinforce content and promote skill practice in 1on-1. If you were to be delivering the 1-on-1 version of "Mothers and Babies," we could work with you to help build in those text messages that would be sent between intervention sessions.

We have quite a few resources to help support implementation of "Mothers and Babies," I'll just go through them fairly quickly so that we save time for questions. We have a primer that we've developed – this is what it looks like on the right-hand side – that we send out to programs before training, so this just gives a high-level overview of the intervention so that folks within a setting can look it over and have some familiarity before they come to training.

We do a town hall, so today is what our town hall is like. It's sort of a high-level overview of what the intervention is with some Q&A at the end, but we're happy to do other town halls if you wanted other staff to be able to hear more about the intervention. We also do a lot of work trying to identify intervention champions at each setting that we're working with, or each agency, because what we've learned is that having an identified champion is really helpful in terms of moving the work forward.

We've recently done a cultural adaptation of "Mothers and Babies" for use in tribal communities, you see an image of what that culturally adapted workbook looks like for tribal communities. We have developed some recommendations for how to deliver "Mothers and Babies" with families who've experienced trauma. And within the next few months, we're also developing materials for clients with low literacy. Instead of using a lot of words, the new low-literacy manuals will be using a lot of emojis and images and numbers instead of a lot of text.

We've also developed a one-hour training refresher online module. That is something, again, that if folks are interested in learning more about "Mothers and Babies," could be a good starting point. Folks could take a look at that one-hour refresher. We say refresher, but it could also be an introduction. A lot of it is going to be similar to what I'm presenting today, but it's really intended to give folks a taste of the intervention if they're considering using it. Or if they were already trained and are forgetting some of the concepts, they can use it as a refresher.

We have some additional videos that can be used to help with implementation, and we've also developed guidelines to help support fidelity-consistent adaptations to the intervention.

If you're interested in getting more information about "Mothers and Babies," feel free to go to our website. As I mentioned, that is where you can download all of our materials. We do not have a very active Twitter presence, that hopefully will be changing in the coming months. Nonetheless, we encourage you to follow us on Twitter if you are on Twitter. And then finally, this is the email that you can send a note to if you want more information or if you are contemplating receiving training on "Mothers and Babies." I'm actually going to put in the chat now as well my own email address.

Feel free to email me directly or to email that "mothersandbabiesnu" Gmail account if you have an interest in receiving training on the intervention.

With that, those are our references, and I've left a little time for questions.

Steve: That's good, that's good. And of course, if questions don't get answered today, folks can write to the National Center at health@ecetta.info. That address is also in the chat. We have a lot of questions, let's see if we can get to most of them.

The first question was about postpartum depression. Does it have an impact on the child as an adult, or can it have an impact on the child who's now an adult?

Darius: Great question. I would say that there is some emerging evidence. To do a study like that, you have to really do these longitudinal studies to be able to follow the child into adulthood, but there is some emerging evidence.

I've seen it, particularly as it relates to cardiovascular health. If your parent, particularly mother, was depressed ... as an adult, you may have more compromised cardiovascular health. That's the research that I'm most familiar with. I would suspect that in the next few years, there will probably be other studies that are taking a look at some of these long-term or longitudinal impacts. But I certainly have seen some evidence around those long-term effects on cardiovascular health.

Steve: Thanks, Darius. I'm going to ask some questions that came in in clusters – One I know you addressed already, but it is about license, certifying, the whole piece related to training, and who are the identified facilitators of this work.

Darius: What we recommend is that the initial training on "Mothers and Babies" is done by our "Mothers and Babies" team or somebody who has received our training and gone through our train-the-trainer that I mentioned. Our additional train-the-trainer typically is only about a couple of additional hours, and that's really focused more on, "OK, now that you're through the curriculum, here are some strategies to train others on the curriculum." In terms of who could be delivering, or who could be leading the training, it could be our team, it could be somebody who went through that train-the-trainer – any of those individuals would be appropriate in terms of leading the training.

Steve: Thank you. Another cluster of questions had to do with perhaps thinking about this program for parents of children older than 12 months of age. Can it be used with preschoolers; can it be used after the child is 12 months? Go ahead.

Darius: Great questions, to the folks who address this. That's my bad for not saying that explicitly. The short answer is yes, absolutely you could use "Mothers and Babies" with parents

who have older children. The cognitive behavioral skills in "Mothers and Babies" – so think about doing a pleasant activity with your child. You could do that pleasant activity with a one-month-old, a six-month-old, an 18-month-old, a 42-month-old child. The skills in the curriculum really are going to be relevant regardless of the age of the child.

Now what I will say is, if you look at the manuals, you will see that they are written for the perinatal period. The only thing that I think providers would have to do is just take that into consideration. And if you were to be working with a family who has a two-year-old or three-year-old, instead of using phrases like "pregnancy" or "infancy," you might use "toddlerhood" or "your young child." You might have to change some of the wording or phrasing, but absolutely the skills, the CBT skills, the attachment skills are going to be relevant if you have older children. And certainly, we see many, many programs around the country that are implementing "Mothers and Babies" with children who are over a year of age.

Steve: Terrific. A question near and dear to my heart as a father – can this program, the "Fathers and Babies," be used with single fathers? And is there father involvement in the actual "Mothers and Babies" program?

Darius: For "Fathers and Babies," we really are now intending it to be available for different family constellations. If it were to be a single father who is the primary caregiver, "Fathers and Babies" would totally be appropriate for him. That's the answer to that question.

In terms of "Fathers and Babies" integration with "Mothers and Babies" or how fathers are incorporated into "Mothers and Babies," I would say there's two things – one is, we always encourage the female who is receiving "Mothers and Babies" to talk about "Mothers and Babies" with other people in her life. The Quick Mood Scale, doing pleasant activities, building your support network. In that sense, we encourage conversations with a partner, with a male partner, about some of the content in "Mothers and Babies." That's one way that we try to bring in that male partner or father.

But then the other way is to deliver "Fathers and Babies" concurrently with "Mothers and Babies." That would be a more intentional and perhaps more intensive way of reaching the father.

Steve: Thanks, Darius. The group sessions have a particular length of time or a recommended length of time?

Darius: The group sessions, I would say, on average last about 90 minutes. And some of that depends on the group size. If you have a larger group, it might take a little longer. If you have a group that's really engaged and has a lot of questions and discussion, sessions might go a little bit longer.

I would say 90 minutes is probably a good gauge in terms of how long each session would be. Certainly, some sessions might be a little bit shorter, some might be a little bit longer. But I would say 90 minutes on average is a good guide.

Steve: Terrific. Jumping back to the training for just a moment – the questions just keep pouring in, so I'm trying to stay on top of them – is the training available in Spanish?

Darius: We are able to do the training in Spanish, yes. Even though I am not bilingual, we do have individuals who have delivered the "Mothers and Babies" intervention in the past to our bilingual mental health providers who we work with – we essentially would contract with. If a service provider was interested in receiving the training in Spanish, we would then work with our colleagues, and they would be the ones that would be really leading the training, with me and my team playing more of a supporting role.

Steve: Thanks. There's a question related to the actual issue of postpartum depression – can "Mothers and Babies" or "Fathers and Babies" be used to reduce the chances of the onset of postpartum depression before birth?

Darius: Before birth? Yes. Even though I would say most of the work that we have done has been looking at outcomes after birth, certainly one of the goals is to help de-stress mom during pregnancy and reduce depressive symptoms during pregnancy. Obviously, to be able to accomplish that goal, you would have to start delivering the intervention during pregnancy.

And I think the earlier you could start delivering it, late first trimester, early second trimester would be ideal. But, yes, we certainly also have data to suggest that if the intervention is started prenatally, you start to see some improvements in mental health outcomes even before mom delivers. I think it's safe to say that you could have an impact in the prenatal period as well.

Steve: Thank you. Let's see. Folks, I just want to tell you we're not going to get to all your questions, I keep thinking that we're through them and that more keep coming in. Be sure to write to health@ecetta.info if we don't get to your question. Let's see – next question. The next question is about data – have there been any comparison in data on the effectiveness of group versus individual intervention, and is there some hybrid version if one is more favorable than the other?

Darius: Yeah, great question. We have not done any studies that are true side-by-side comparisons, but what I can tell you is we see roughly the same intervention effects with the group modality versus the 1-on-1 modality, with one exception – and this is not going to be a surprise – we do see that there is slightly greater perceived social support with individuals who are engaged in the group modality.

I think it's natural because they're in a group, so they not only have support of other the facilitator, but they're able to perhaps more easily access support from other group members. Other than that distinction, I would say, by and large, the results look the same in terms of the effect sizes and what outcomes are being impacted group versus 1-on-1.

Steve: Terrific. I think we have time for one more question – is this intervention intended for any client or any family member regardless of risk, or should the client or participant be screened and identified as at risk for depression?

Darius: That goes back to this idea of doing it universally versus selective. Certainly, I think you can base "Mothers and Babies" receipt on some risk criteria – elevated depression score, being a young mother, having low social support, having a personal history of depression – but I think

it's also appropriate to say, you know what, everybody has stress, and everybody can benefit from a stress management intervention.

I think about the families that many of you are working with who may have high stress levels who can benefit. The other thing that I would say, and this is not going to come as a surprise to all of you, is that people's lives change pretty quickly. If you did a depression screen today on September 16, somebody might score low. But if you did a screen again one week later, they may screen positive.

If you're basing it solely on a depression screen, you might be missing individuals. Another reason to think about being more expansive and who might receive the intervention.

Steve: OK. Well, thank you, Darius. Thanks for everybody's participation, but especially for delivering all this great information, Darius. The evaluation itself will pop up. Don't close the Zoom, it will pop up if you don't close the platform as soon as we end the webinar.

Next slide, if you wouldn't mind, Darius. It's also in your handout, and it will be in the recording. We have a mailing list if you'd like to be a regular part of all of our resources that go out. You can reach us at this phone number, we have resources on this website, and you can reach us at this email address.

I want to thank everybody. We're going to close the webinar platform in just a few seconds. Don't you close it, or you won't get the evaluation, and if you don't get the evaluation, you won't get a link to the certificate. OK? Here we go. OK, take it away. Thank you, Darius. Thanks, everybody.

Darius: You're very welcome.