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Maternal Depression and its Impact on Young Children: Strategies for Prevention and Methods for Establishing an Evidence-Base Influence Policy

DEBORAH PERRY: Thank you. So you can imagine that each of us came up with a fabulous presentation that was supposed to last an hour and a half and we were going to have all this time to have discussion and interaction and pleasant activities. And here we are doing a 12-minute hit and run at you.

So I apologize because I think each one of us, there's so much richness in what everyone's doing. And I think what we're trying to do is kind of weave it together for you so that you can see that with something like maternal depression, there's really a need to approach it from multiple perspectives.

And I think, you know, Suzanne did a terrific job of really setting up the context that we have multiple decades of data that show that depression is bad for little kids. I mean we don't need to do those studies anymore. We're done with that. But then--so then it's the so what. And I think that that's where Mary and Teddy, their presentations really come in because I think that each state and community is trying to approach this from a slightly different vantage point.

And I think that, you know, Mary really underscored how difficult it is to diagnose and then get women into treatment, those women who need treatment. And I think, you know, Teddy really just started to describe what I know is the tip of the iceberg of what they're doing in terms of really looking at systems. I mean I think from Teddy's presentation I really took away, you know, the sort of need for a continuum, a need to really have principals driving what you're doing, to be infusing mental health screening into all the places where children and families are. And I think Mary really underscored the need to like de-stigmatize this because it's still the case that mental health is a huge issue, particularly in our communities of color and our low income groups.

So that really, as the context, and I really couldn't have asked for a better context for my presentation, really motivated our work. And again, in very brief, very quickly, we want to always thank our funders, the Maternal and Child Health Bureau who gave us a research grant. Myself and the collaborator at George Washington University, Dr. Mimi Lay . They took a chance on two young investigators. And we had a pretty audacious plan, which we still sort of look at each other and say, "Wow, we pulled this off didn't we, almost."

And really also give credit to some of the work that was done, the foundational research by Ricardo Munez our at UCSF in the Bay area where Teddy's work is done, who really helped us make the translation between taking what we know is

an evidence based practice, which is cognitive behavioral therapy, which we know is an effective treatment and moving that into the world of prevention. And I think that's really--if you remember nothing else from what I say--that's really what I think we need to be doing is shifting the burden from trying to get women who are going to be reluctant to get into treatment, who we don't have effective culturally competent treatment methodologies for into prevention. And I think that's really where our energy needs to go. And I'm at a conference of public health people so I don't need to sell you on that, do I?

So really that's what we were all about. And we were really, again, motivated by the fact that we know that particularly in low income, immigrant Latinos, which is the focus of our project, that we don't have women coming in and saying, you know what, I'm really struggling with depression, can I please sign up for treatment services.

And so if we can shift the paradigm a little bit and get them in, identify those who are at highest risk, again infusing those services into the places where they're getting normal prenatal care. And I think the prenatal period offers that wonderful opportunity to kind of capture people who are motivated for behavioral change. If they wouldn't do something just to help themselves, they'll do it to help their baby. And I think we've really capitalized on that.

So I--just because of course we always have to have definitions, Suzanne did a great job. Here's the DSM definition. What I want to underscore is that you have to have at least one of the top two in bold, but then you also have to have those symptoms interfering with your ability to function. And that's a really critical thing when we get to the end of this presentation, because I think one of the things that we know about this population is there's a very high symptom burden. They're walking around with very high levels of reported symptoms. And whether or not that interferes with their functioning is really sort of a critical juncture. And I think we'll come back to this.

Also we know that women are disproportionately affected by depression. Suzanne did a great job of doing that. I want to spend just a couple of minutes on this slide because this slide really to me operationalizes why we want to do a preventive model. And so there's sort of a normal state of mood that we all have. Some of us are very cheerful and some of us are kind of less cheerful. But there's a set of normalcy. And depression really happens as that normal mood starts to decline below a certain threshold. And that's what we really call clinical depression.

In a preventive model what we want to do is we want to stop the progression down to that clinically significant level because there's a lot of time and energy that needs to go into re-asserting your normal mood level. And the reason that's very important, in fact, is because we know that once you've had one episode of

major depression, you're way more likely to have subsequent recurrences. And so ideally what we would do is prevent that very first episode of major depression. We think that what happens is you may reset the threshold below which your mood may need to drop before you're actually in a clinically significant depressed mode. So we really want to sort of shift this paradigm.

I think, again, Suzanne did a great job of talking about risk factors for maternal depression. I think we have a great deal of literature to show what things put women at significant risk for depression. I think what we're just starting to get-- and Mary alluded to this--is that we're just starting now to understand what the unique risk factors are in culturally diverse groups. So for example, we spent a lot of time before we actually implemented our intervention talking to the care providers and talking to the women about what were some of the unique stressors that they experienced. Now remember, this intervention was initially developed out at UCSF by Ricardo Munez . It was developed with a predominately Mexican American Latino population.

I think we all need to remember that when we're talking about these populations there's so much heterogeneity of where people are coming from and their immigration experiences, what motivates them to come to this country. In Washington, D.C., we have a predominately Central American population. Half of the women in our study are from El Salvador. The others are from Central American countries that have had civil war and strife. And so when we took this--

what was an evidence based practice and adapted it for the Washington, D.C. are it was very important to us that we understand the unique cultural experiences that these women, these new immigrants, these new Latinos, as we call them, are having. And if we hadn't done that we would have missed some really important things.

The number one thing that puts these women at risk for postpartum depression is that more than half of them have left children behind in their home country. More than half of them. And when they get pregnant again it brings up all sorts of issues about guilt and loss and issues about concerns about not being able to send money home. And so just that one reality, that one issue meant that we had to address that in our intervention. We had to sort of hit that head on.

Another issue that was a unique risk factor for this population was that there are very high levels of domestic violence and also partner alcohol abuse. Why? Because they come to this country and there are all sorts of very challenging sex stereotyped role issues, right. So the men are expecting that the world is going to be a certain way. They get here, it's not that way anymore. Their wives are out working. You know they're not controlling the money. There's all sorts of things like that. And so it's very important, again, to really understand not just the normal risk factors as we understand them from the literature, predominately on Caucasian women, but what does it mean to--what puts women from communities of color at risk.

So what we did for our study was we actually selected women who were at highest risk based on either a high symptom score on the CESD, the Center for Epidemiological Study's Depression Scale, and/or had a history for depression because we know that those are two very powerful risk factors that we can identify in the prenatal period, puts them at risk for postpartum depression.

Again, very briefly, we used an evidence based practice, cognitive behavioral therapy which really, if I had more time and--we would go into actually how we do this. We have different modules that look at how your mood affects your thoughts and affects your behavior. How your behavior is affected by the kinds of activities that you engage in and the people you surround yourselves with. And so we've taken what has a very long, evidence based in terms of a treatment model and we've moved it into a preventive model where we're really teaching the women mood management skills. We're teaching them how--how their thoughts affect their mood, how their mood affects their behavior. And it's actually available on our website. It's an eight-week course.

So you see we've made it very accessible. We don't use the word depression. Just like Mary told us. These women don't see themselves as depressed. They see themselves coping very effectively with a very high stress level. And so talking about depression and making it a clinical thing really is unnecessary and unappealing. And so really what you can see is what we're talking about, the

internal reality, what's in your mind, what you actually have some control over and how that interfaces with your external reality, much of which we don't have control over, right. I'm not going to be able to change these women's living situations. Many of them are living with people who are strangers or, you know, three or four different families all sharing. Their external reality is stressful. What they have the ability to do is modify the way they see that reality and the steps they take to try to shift that reality. And so that's really--this is sort of our model.

I gave you a big copy of this because there's nothing worse than being at a conference where someone puts up a whole bunch of little tiny numbers on a screen. So your very last page of your handout is an actual readable version of this. This actually, to me, is one of the most exciting slides for us because, of course, it represents the incredible amount of work that's gone on with our bilingual bicultural team.

We began this project working in one community based health care center in Washington, D.C. here. It's called the Mary Center for Maternal and Child Care. Anyone who's local may know of them. They are the preeminent health care provider--community based health care provider in the Washington, D.C. area, in the Adams Morgan section.

They started as like in a church basement and have now expanded. They are a multifaceted institution. They have WIC. They have Health Start. They have

Healthy--they really exemplify this. They started with Latinos. They're now serving a huge percentage of new Ethiopian immigrants and a whole variety of folks.

So what we did very strategically, again, because we were young and audacious is we found the most trusted local provider in the community and we embedded what we were doing directly into what they were doing. And so that meant that we--at the Mary Center when someone gets a positive pregnancy test, they're assigned to a family support worker.

And of course we had to revise and resubmit the grant a couple of times. So in the process from the time we first approached the Mary Center to the time we actually got the grant we had actually convinced them that they should incorporate prenatal depression screening as part of their routine standard of care, which we were thrilled about. I mean we want to know what outcomes are, that to me was the best outcome.

So then what we had was the family support workers were already ready to basically identify the women at highest risk. So they were using the CESD. They could see who scored above a 16 and that's our high symptom score and/or who was identified as having a past history of depression. Those women were further screened again. Because in a preventive intervention you don't want people who

are currently depressed. And the people who are currently depressed need to go get treatment.

So we were able to use a tool that was developed again by Ricardo Munez and my colleague Dr. Mimi Lay who--this is a one-page tool, very easy to use. I really recommend people look this up if you're interested in this to be able to see who's currently meeting criteria for major depression. And it's a one-page thing. The family support workers could do it too. And that way we were able to identify right away who needed to be referred to treatment. Again, the advantage of working with some place like the Mary Center is they had onsite mental health treatment available. Not enough, not at the capacity we need. And there's some community based resources. But at least then we were able to directly connect women with services on the spot.

The women who were simply at high risk but not currently depressed were then offered to be enrolled in our study. And so we were able to really work with the Mary Center folks to identify those people who were eligible. You can see we approached almost 1,800 women over the course of the last two years. Really a substantial effort with our bilingual bicultural research staff.

And you can see about 800 of them were eligible to be screened formally. So they were not too far along in gestation. They were not too old or too young. We were only screening--we were only including women who were relatively healthy

in this study. And then you could see that further on we got 310 of them who were eligible. So of those who got the full screening, about 41% of them were actually eligible for the study. We were able to enroll 220 of them in the study, which again is sort of astonishing to us, and randomize them. And we are doing a randomized control trial. We thought that was going to be challenging in a community based setting but really it was very clear to everybody when we said we don't know if this is going to work. We're not keeping something that we know is effective from anybody. We really don't know if this is going to work and we really want to make sure it works for this population. So they really were onboard with that.

And then you can see that what our bigger challenge is is that we're actually following for a year postpartum, which so far we've only lost 19 of our 220 women which is a really, really astonishing thing. And really is a tribute to, again, the relationship with the Mary Center and also the fact that our staff makes these really strong relationships with these women. I mean when they go home to their home country and then come back and call us, you know you've done something right.

And then you can also see there's a little new branch up in that corner which is what we found is a lot of women were delivering at Providence Hospital and there was a huge amount of women who were getting prenatal care there sort of disconnected from the Mary Center. And so we started enrolling women there too

just to make sure that we got to our full 220 that we had promised the Maternal and Child Health Bureau.

So the course is--it's eight weeks. It's two hours per week. It's a group based intervention. One of the nice things about that is a lot of these women are at high risk for not having a fully intact social support system. They come here, they move here, they're disconnected from their family and their friends. And so being in this class actually provides them with a natural support system. And many of our women have stayed friends and stayed in touch and have raised their babies together.

And you can see that we also do three booster sessions in the postpartum period. Those are done individually and usually as home visits or in the Mary Center. And I've already talked about the fact that we really customized it to meet their needs.

Here's some demographics of those in the study. You can see they're relatively young. They have very low levels of education. About 40% of them this is their first pregnancy. We're enrolling them very early in pregnancy. Again, I give total credit to that for the Mary Center. We have a colleague in Mexico who's doing a parallel study and more than half their women were ineligible because they were presenting too late in gestation. And that really has been a big change for us. You can see again more than half the women are from El Salvador. They

immigrated very young. They haven't been here very long. And again, the women leaving children behind in their home country.

This slide tells you that randomization was successful. The CESD scores are totally not different. This is the only one that we want to look like this, but unfortunately you will see this is why you have a control group because if you didn't have a control group you'd say, look, the mothers and babies, the people in the intervention, they're depression scores are dropping. Isn't that great? And look, so a T1 is before they enter the intervention. So it's during pregnancy but it's before the first class. T2 is after the eight week class, but still during pregnancy. T3 is at six weeks postpartum. So what you see is a lovely natural history of what happens to depressive symptoms. In the absence of an intervention it's the same sort of thing, right.

Here we have another one of those beautiful parallel lines where you think wow, okay, social support. And we're looking at a whole bunch of different measures. And I won't, you know, belabor the point that these lines are incredibly parallel and all looking the same until you get to this one.

And this is the slide that keeps us going when we get really depressed ourselves and need to do pleasant activities. Is that in our control group, in our usual care group, we've had six new cases of major depression as of Time 3. And we've had--we have data available on 110 of our 220 at this point just because of

where the cohorts fall. And we have no new cases of major depression in our intervention group. And that, to me, you know, if that finding holds, that's really a very significant effect. And what that says to me is that we are maybe--we are seeming to be able to affect major depression, but that we may not actually be able to change the symptom burden. What we may be doing is we may be helping women get just that extra edge that allows them to continue to function in the presence of a fairly high stress level and a fairly high symptom burden.

And I think the other thing that we found is that the women really like the intervention. If we can get them to the first class they keep coming. They really have found that this is a terrific support to them. I think it really parallels a lot of what you all have said. And I think it really underscores some of what Teddy said is that we really need to be infusing this kind of approach into where women and children are. One of my things is if this does look like it's going to work I'd like to actually teach it to home visitors because I think that the relationship part of this is really important. And so that will be our next grant.

And I think, again, we really have to do a lot of work so that we're making sure that each time--we don't want to just take evidence based practices and plop them into communities and expect that they're going to work the same way that they did when they were developed. I think we really have to take our time, really listen to our constituents and really customize them, maintaining fidelity, but

customizing them so that they really meet the needs of the populations that we're trying to serve. Thank you.