Stephen Calabria: [00:00:00] From the Mount Sinai Health System in New York City, this is Road to Resilience, a podcast about facing adversity. I'm your host, Stephen Calabria, Mount Sinai's, director of Podcasting.

Today on Road to Resilience, we're exploring one of the most serious and least understood conditions that can follow childbirth: postpartum psychosis. It's a rare but severe psychiatric emergency that affects approximately one to two women out of every thousand births.

When it strikes, it can come on quickly, sometimes within days of delivery, and may include hallucinations, delusions, paranoia, and even thoughts of harming oneself or one's baby. Despite its seriousness, postpartum psychosis remains underdiagnosed, undertreated, and underdiscussed.

To help us better understand this condition and the paths to healing and resilience, we're joined by two leading experts. Dr. Veerle Bergink is director of the Women's Mental Health Program at Mount Sinai, and a renowned psychiatrist whose research focuses on perinatal mental illness.

[00:01:00] Dr. Bahrang Mahjani computational geneticist and Assistant Professor of Psychiatry at the Icahn School of Medicine at Mount Sinai, who uses large scale data to uncover the biological and environmental risk factors that shape postpartum psychiatric conditions.

Together they'll unpack what we know and what we don't about postpartum psychosis, how to recognize the warning signs, what recovery can look like, and what gives them hope for the future. We're honored to welcome Doctors Veerle Bergink and Bahrang Mahjani to the show.

Dr. Veerle Bergink and Bahrang Mahjani , welcome to Road to Resilience.

Veerle Bergink: Happy to be here.

Stephen Calabria: Now, how did each of you come to focus on postpartum psychosis in your research and clinical work? Was there a moment or story that kind of catalyzed your interest?

Veerle Bergink: As a psychiatrist, I saw many women with postpartum psychosis because I was working at the referral center for postpartum psychosis.

And it just struck me [00:02:00] how severely ill women were and how quickly these women recovered with the right treatments and after recovery, these

women end up partners had many questions like, how could it be that I got so ill right after delivery? What triggered this what's gonna happen now? What is the risk of me getting this again?

Why does this happen? What is the best treatment? I started looking in the literature and there was hardly anything, basically nothing there to answer these questions. So that's why I started doing research in postpartum psychosis. And that was 20 years ago. And now I work both clinically and as a researcher in postpartum psychosis.

Mehrang Bahjani: Yeah, so I'm in a statistical geneticist. I work with genetics of different psychiatric disorder. Something that is very important for me is to do work that is really meaningful for the society. So I talked with Dr. Bering that what are the [00:03:00] interesting projects that we can do? And then I saw that, oh, she's so passionate about working with postpartum psychosis.

Then we talked together a little bit explained, and I didn't know much about that before she told me all about it. And then we came up with some models and I think we, we wrote a grant application in just couple of weeks and managed to get funding into startups.

Stephen Calabria: Now postpartum psychosis, as you pointed out, is relatively still unfamiliar to many people, including expectant mothers and even some healthcare professionals.

How do you define it in your work? What is postpartum psychosis and what distinguishes it from postpartum depression or anxiety?

Veerle Bergink: Postpartum psychosis is when women right after delivery in the days and weeks after delivery. Get severe mental illness. Most women get manic symptoms, meaning their thoughts are racing.

They have grandiose IDs, they're very busy, they can be [00:04:00] very irritable. Some women have depressive symptoms. They feel very low. Sometimes they have this even at the same time, one day depressive other they manic symptoms. And some women have psychotic symptoms, meaning that they lose reality.

And what all these women have in common is that they were doing well, did not have psychiatric symptoms, and within weeks after delivery, they become so severely ill that their people around them doesn't know what, what is happening and that they need to be admitted to a ward. So that is postpartum psychosis.

It's actually quite acute. It has a clear onset, a clear timing, and a clear trigger. Postpartum depression is more common and postpartum anxiety as well. Many women have depressive symptoms or major depression or anxiety, both during pregnancy and also after childbirth. [00:05:00] And so the time course is very different.

As I say, many women already have symptoms during pregnancy or if they have it after delivery, then it usually occurs in the, in a few weeks or a few months, and is in most women, less severe. So it's more common and less severe

Stephen Calabria: now. As far as postpartum psychosis and postpartum depression, what are the demographics that we know of?

Are they more likely to affect people below a certain income line in certain ethnic groups? How does it break down and is there overlap between those most likely to experience postpartum depression and postpartum psychosis?

Veerle Bergink: The demographics are very different for postpartum depression. It's roughly one out of 10.

And the risk factors are the risk factors that are known for all psychiatric illnesses, namely low socioeconomic status a lot of stress life events life adversities. [00:06:00] Financial problems are all kind of other problems, various postpartum psychosis in people without psychiatric history.

It's one out of thousands so it's much more rare. And it basically, there is no strong relation which all the things I just mentioned it just happens to one out of thousands, almost random. So it's not that people who are. At high risk because they have difficult life circumstances get postpartum psychosis, so that's very different.

There is one group of women who is at very high risk of postpartum psychosis, and that is women who have bipolar disorder, manic depressive illness. Their risk is not one out of thousands, but their risk to be severely ill after childbirth, postpartum psychosis or postpartum depression is one out of three, so they're at super high risk.

And interestingly, [00:07:00] once women have had a postpartum psychosis, they're also at high risk after their second or third child to get another episode. In contrast to postpartum depression the trigger, namely delivery and the timing after delivery is much more clear than for postpartum depression, which is much more multifactorial.

Postpartum psychosis is relative to other mental health conditions, not so much related to chronic stress. The person you are, the circumstances you're in, the partner you have, and whether you are successful or not, and how your life is going, it's more of a random hits, basically.

Stephen Calabria: And are there genetic or biological markers that you're particularly interested in?

Mehrang Bahjani: Yes, it's a very highly genetic condition. Actually the manscript that we publish we observe very high heritability for it. Of course, it's one of the reasons that it's difficult to study it analytically.

It's a it's a rare disorder. And for genetic [00:08:00] studies, we need to have a lot of samples. But now gradually we are getting more samples for such studies. And actually, one of our most recent manuscripts or preprints, we found genetic factors for postpartum psychosis. Of course, these studies need to be replicated.

Finding these genetic factors can also help us to understand the biological versus underlying the disease. But anyway, in summary, it is a large genetic component or biological component underlying postpartum psychosis.

Stephen Calabria: Dr. Mahjani, you've worked extensively with large scale data and digital health records. First of all, what are new methods we have in the age of AI for gathering and understanding large quantities of data.

Mehrang Bahjani: As you mentioned just name the electronic health record. So we are having larger and larger electronic health records including Mount Sinai is working a great work in that direction also.

So now we are trying to combine different type of data sets like genomic [00:09:00] dataset. Electronic health record different computational phenotypes. And then you can combine all of these dataset using AI methods or machine learning methods to get a better understanding of the underlying biology of the disease

Stephen Calabria: In ways that if they were done by humans alone, would probably take disproportionately more time.

Mehrang Bahjani: Yeah. And not just human alone, even the traditional methods, because the traditional metals, we call this high dimensional data. It means that this data from different sources, let's say imaging, genetic, the traditional methods are not that good to put all of this data together.

One of the strengths of the machine learning method is that you can combine high dimensional data to analyze it.

Stephen Calabria: And how does this new collection method help advance our understanding of who is at risk and how we might intervene earlier?

Mehrang Bahjani: In a good way, I hope. I don't know how really, but we will see. We are just this data is getting collected and we are hoping that it'll be [00:10:00] helpful.

Stephen Calabria: Steven, we just started. I'm like, yeah, we can't solve this right now.

Veerle Bergink: We actually clinically know who's at very high risk, like I said, women with bipolar disorder, manic depressive disorder. So we as clinicians should start there in preventing these episodes in these women because we know we can.

It's not that difficult. So we should really start to prevent episodes in women at super high risk women with manic depressive illness. And then the next step is in ideal world, we also prevent episodes in women who have this for the first time. But that's one out of thousand, so that's gonna be a bit more challenging, but I'm sure with genetic work and big data, Dr. Madani, we're pursuing, we'll get there at some point.

Stephen Calabria: Now, that's the condition, the underlying condition that puts most people at risk for postpartum psychosis. But are there known triggers or early [00:11:00] warning signs that families and clinicians should watch for in the days or weeks following childbirth?

Veerle Bergink: There are, but I think everyone who had a child or have watched someone with a child has noticed that the behavior of the parents, especially the mother, changes the days after delivery. Right? Women are very emotional or vulnerable.

Or they suffer from sleep loss or they're over the moon because of their newborn or severely worried or all of these things at once. So the difficulty is that the days and weeks after delivery is a period in which people, and especially mothers, fathers as well, but especially the mothers, because they also have to recover from the childbirth.

Their life is full of hormones. So they're different than there at other times. Anyway, so then on. Top of that, you have to detect the difference, which [00:12:00] you say, this is really weird, and then it's just common sense.

So the warning signs are really that, mostly the environment says, this is not how I recognize my wife or sister or friend. This is weird. She wants to throw a party for 300 people, like five days after delivery.

Or, she's constantly rambling and going on and on, or she's very negative about our newborn while we were looking forward to this baby. And what women sometimes notice themselves also is that, they're not doing well. They're worried.

That's mostly for women who have depressive features. It's a bit more different if someone lost reality or if they're manic, they sometimes do not realize. Themselves that they're ill. They say yeah, no, I'm completely fine. The rest of the world is not doing well. They don't see, the way it is.

Stephen Calabria: Okay, objectively speaking, [00:13:00] many women following pregnancy are more emotional than they otherwise would be. But you're saying it is a largely subjective call for the family members, for people around to say, Hey, this person is outside of the bounds of what is normal emotionality and has veered into someone we don't recognize.

So to recognize postpartum psychosis, it sounds like falls largely on the support network and support system. Would you say that's true?

Veerle Bergink: That's true. It's most of the time the environment, noticing it. But having said that, as I said before, especially women who are feeling very low, they can also very well articulate themselves that they are not well and that they are not. Doing well and that they need help.

In general, for every woman who gave birth, who is postpartum if a woman is saying that she needs help, that she's not doing [00:14:00] well, that she's worried that should be taken very seriously, regardless if it's gonna be a postpartum psychosis or a postpartum depression.

Stephen Calabria: Can you walk us through what treatment and recovery might look like for someone experiencing postpartum psychosis.

Veerle Bergink: The treatment is usually in patient admission, and that is because it's a riskful condition. People are at risk for suicide. They're at risk for

harming their baby, and we're not good in detecting which women are especially at risk. So to prevent those risks, we highly recommend that women are admitted to a psychiatric ward.

Then the preferred treatment is treatment with an antipsychotic medication and lithium, and we showed that in earlier work, 98% of women completely get better with weeks, as in no manic, no psychotic, no depressive symptoms.

So they go [00:15:00] from being well from zero to a hundred in a few days as being severely mentally ill, like the most severe cases you have never seen. But with the right treatments, they can recover very quickly and all women recover completely.

And other very good treatment option is electro convulsion therapy. So if women do not want to take medication or they prefer this option, or for example, they don't eat or they don't move, or there's another riskful situation, if they get electro convulsion therapy, ECT, they also get better just as with medication, literally within weeks and then they fully recover.

Stephen Calabria: Is it painful?

Veerle Bergink: ECD is not painful.

Stephen Calabria: Okay. You've already touched on the crucial role of social and family support in diagnosing the problem. Do you [00:16:00] see more positive outcomes among patients who have significant family support?

Veerle Bergink: I think that holds true for every single disease that you're very lucky and blessed if you have the right support.

But for a disease s. Postpartum psychosis, you can have the most lovely family and lovely partner ever. That is not enough. People really re need medication during the acute phase to get out of it. They really need antipsychotics and lithium. So in that sense, in terms of treatment response, the role of the environment.

Is limited, as in it's not a major trigger if you have a difficult environment and it's also not gonna get you better. Of course, on the long term, like for everyone in life, it makes a huge difference whether you have a supportive system or not.

Stephen Calabria: With those treatments in place, that makes a full recovery vastly more likely, especially with family [00:17:00] support.

There's still though significant stigma and silence around postpartum mental illness, especially psychosis. What would you like to see change, whether in the media policy or healthcare system to address the stigma?

Veerle Bergink: First of all, we would like to have an official recognition that this is a serious disease by listing it in our classification system.

And there is a very large group of psychiatrists, basically every researcher who've ever worked on this. And every clinician thinks that this should be rightfully classified, so it should be in our DSM system. As a code that this is a very serious disease. That is one. Then two, we need adequate treatment facilities.

As I said, women need to be admitted. There's several places in the world where women can be admitted together with their babies. These are called mother baby units. We don't have these in the United States.

Several countries [00:18:00] in Europe have these, in Australia, in Asia, in many places in the world, but not in the United States. And that is just an insurance question. And that should be solved because it's so difficult to separate mothers and babies.

And what happening here is that mothers leave the hospital too early, before they're recovered, and that's not helpful for their recovery because, as I said, with the right treatment, women can fully recover, but that still takes some weeks.

And if they get, discharged within a week because they want to be with their baby, then that's difficult. The other thing is, if mothers and babies are separated, and once mom comes home, she has a lot to process. She has basically lost her mind.

She's a new mother, but at the same time she got severely ill. That's a very traumatic experience. So in addition to the physical recovery, there's [00:19:00] also the emotional recovery for having had such a severe mental illness.

Then she, her baby is also new and someone else has taken over. It might be a grandparent or her partner who has bonded with the baby and she has not. So then on top of all of this, she has to get to know her baby.

Whereas if she can be admitted together with her baby, she doesn't miss that part. So that's very important, both for women with postpartum psychosis as well as for women with postpartum depression.

If they're so sick that they need to be admitted, they should not be separated from their babies. And that is what happening in the US as well. So my really, my wishlist is, one, to get this acknowledged so that we can detect it and treat it. And two, that there will be good treatment facilities for mothers and babies.

Stephen Calabria: There is a great deal of stigma around mental illness in America [00:20:00] generally, especially when it comes to mental illness' relationship to violence, and the propensity of people suffering from mental illness to engage in violence.

However, the statistics tell us that the vast majority of people who are mentally ill are not violent. Does the same hold true for people suffering from postpartum psychosis? And what would you say to people who say, someone who is experiencing or just getting over psychosis should not be handling children?

Veerle Bergink: During the acute phase, they should definitely not handle their babies alone. They can hold their baby, but there should be a nurse standing next to them to make sure that it is safe.

After the postpartum psychosis is completely cured, there is absolutely 0% risk of harm to the baby or the infant. So there is [00:21:00] absolutely no reason to call Child Protective Services. There is absolutely no reason to place the baby somewhere else.

Even in this very rare cases that the mother unfortunately has harmed the baby, that is not the mother's fault. That's a failure of our healthcare system not treating it right. Because, even if that has happened, when she's fully recovered, she will be as good mother as everyone else, there is absolutely no risk.

And I know all these cases of women who have harmed their children, so there is no risk that this will happen again if that was part of the postpartum psychosis.

Stephen Calabria: And as a reaction to the stigma, I imagine great many patients also feel tremendous guilt that this something that they should have had a handle on. So much mental illness comes [00:22:00] accompanied it seems, with tremendous guilt. How do you approach helping mothers, and families generally, understand that this condition is not their fault?

Veerle Bergink: Literally, as you say by saying this is not your fault. That is why it's so important that we got the message out and also with the help from Dr. Mahjani in showing this, like in large data sets, who's at risk? What is the genetics to clearly show like, yeah, this.

This could happen to anyone. Exactly. This is, as you said, largely genetic. And then there is another factor on top of those genetics, which is the childbirth related trigger, what is actually getting people over the threshold will have those vulnerability genes.

But that is something you cannot help as for many other disorders in medicine, it's just bad luck and for somehow it's more difficult for people [00:23:00] themselves, but also for society when it's mental health, to accept that that holds true as well, that you can just have bad luck, because people are always searching for causes or why would this have happened and

Mehrang Bahjani: I can just echo what Dr. Bergink was saying that, yeah, the larger part of many of the psychiatric disorder are genetic components, which basically means that it is not your fault.

It's the same thing that you just mentioned. We see some environmental factors, but often they have a small effect size, but even those many times are in the context of genetics in the way that we call the gene environment interaction.

Two individuals going to the same stressors, one developed a condition, and the other one doesn't, because they have different genetic makeup. So it has, it depends a lot on the genetics, which we don't decide, of course.

Veerle Bergink: I feel fully agree. And even if there is an environmental component, then often that is not someone's fault either. That's [00:24:00] can also be bad luck.

Stephen Calabria: What areas of research into postpartum psychosis are you most excited about right now? And are there breakthroughs on the horizon that you believe could be transformative?

Veerle Bergink: We are both very interested in addition to genetics in the role of the immune system. Because in addition to the change in hormones right after delivery, there is a massive drop in sex hormones at the time of delivery.

But there's also a major change in immune system, because during pregnancy you don't want mothers to reject their own baby. So the body made a

mechanism that the. The fetus, which is partly genes of the father, is not rejected.

So the immune system of the pregnant mother is differently organized and right after delivery, this immune system has to get back to a non-pregnant situation, back to normal. So we know that all diseases with a specific onset right after [00:25:00] delivery in general medicine are autoimmune diseases are related somehow to the immune system.

So Dr. Mahjani and I are now looking into whether postpartum psychosis is also related to the immune system. So we're interested in immune related genes overlap with genes, which plays a role in autoimmune disorders.

For example, autoimmune thyroid disorder, which is very common right after delivery. And we're interested in immune changes in those women and how this affects the brain.

Stephen Calabria: And how does that dovetail with your experience in working with AI in applying it to this?

Mehrang Bahjani: AI can to some extent maybe help us with electronic health record to find individuals with postpartum psychosis easier because the diagnosis in electronic health records are not perfect. There's a lot of noise in there.

So we can use AI to find these individuals. And I as also mentioned, these are [00:26:00] rare disorders. It's very important, even can find single ones. But also we use them in our method development with all of these gene discovery tools that we had, there's a lot of AI also behind those methods.

Stephen Calabria: Dr. Bergink, you've worked with patients who've experienced the most acute forms of postpartum psychosis. What are some of the most powerful examples of resilience you've witnessed in your patients and their families?

Veerle Bergink: There are many that stick out but resilience suggests like they, you fight for it, you overcome it because of willpower and that is not how getting better from postpartum psychosis works. So it's not as if, if I try a bit harder.

That I will get better if you have got the right spirit. let's be resilient to this. Let's train for this. That's just not how it works. You got like severely ill, and

you're making the best of it. And that is what [00:27:00] I've seen, that people really trying their best to cope with this horrible illness.

And I've also seen this in partners and families a lot. They see their loved ones being changed in someone they sometimes do not even recognize, as I say, some women can be really irritable and for example, really mean and horrible and awful, and say things they do not mean.

And what I've seen is families really coping with that very well and staying a patient and calm and I as a doctor are somewhat some. Sometimes or many times, saw patients for the first time during their, this acute episode and then only afterwards saw that, they're like all of us, lovely people, some not so lovely people.

But what I've seen families is, they remember. The person they saw before and they somehow managed to [00:28:00] get true through this period, even though they get insults on a daily basis and horrible remarks because they know okay, this is gonna pass.

And I think that's an important message for mental health changes in general. That severe mental illness sometimes brings out the worst in us. Every person. Every person has parts which is in normal life, very well hidden.

And when you are a psychotic, or when you're in severe depression, or when you're in a, what we call dysphoric mania, like angry mania, this brings, can bring out the worst of us.

And then it's important that the family and the environ tries to remember that this is not. This is not personality. This is a disease we're looking at and that is what I've seen a lot, that people are forgiven and this is how it should be actually.

Stephen Calabria: And I think that anyone who's served as a [00:29:00] caregiver for someone who's sick knows that even if it is not a mental health sickness or illness, being sick can make someone say things and do things that they otherwise would not—out of frustration, out of anger, et cetera.

And I suppose it is an important message for people that they shouldn't take it personally.

Veerle Bergink: That's a very important message. Yeah.

Stephen Calabria: If you could speak directly to a woman who is recovering from postpartum psychosis and may be feeling ashamed or frightened, what would you want her to hear from you?

Veerle Bergink: That is not her fault and that she will recover completely.

Stephen Calabria: What has this work taught you, both on a personal level about human vulnerability and resilience?

Veerle Bergink: We all, and literally all of us, can get mental illness, so we should not be so judgemental to others who [00:30:00] suffer from mental illness, that somehow they should have tried harder, they should have done things differently, because there is also a large part that it's just that it can happen. That these things happen in life.

Mehrang Bahjani: I was going to say the same thing, that it can happen to any of us, but also, at the same time, with the right treatment, care, and understanding, like postpartum psychosis, women can completely recover, which I think shows the importance of scientific discoveries.

How important it is that we spend a lot of resources on scientific recovery, scientific discoveries to improve the quality of life for all of us.

Stephen Calabria: If a woman believes she or someone she knows is at risk of postpartum psychosis, what should she do?

Veerle Bergink: During pregnancy, she has nine months to see this coming and the environment, as well. So, if someone has bipolar disorder or had postpartum psychosis before, they should search for a psychiatrist specialized in [00:31:00] this and to make a plan to prevent this next time.

And that's not difficult. It's just a matter of, right after the next delivery, starting medication. Lithium is best investigated, but antipsychotics might work as well. We're now investigating if antipsychotics work as well, but for sure we know that lithium works and that women at high risk can prevent this with the right medication.

Stephen Calabria: And how may patients reach you?

Veerle Bergink: They can reach us via the Women's Mental Health Center. And again, during pregnancy is the ideal time to make a plan. We call this

postpartum psychosis prevention plan to make a plan to prevent this from happening.

Stephen Calabria: Drs. Veerle Bergink and Behrang Mahjani, thank you so much for coming on Road to Resilience.

Mehrang Bahjani: Thank you.

Veerle Bergink: Thank you.

Stephen Calabria: Thanks again to Doctors Veerle Bergink and Behrang Mahjani their time and expertise. That's all for [00:32:00] this episode of Road to Resilience. If you enjoyed it, please rate review and subscribe to our podcast on your favorite podcast platform.

Want to get in touch with the show or suggest an idea for a future episode? Email us at podcasts@mountsinai.org.

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