

**Episode: 18****Title: Child Development: Clinical Reasoning in Paediatric OT****Hosts: Mahek Bansal & Larissa Ferrari****Mahek Bansal**

Hi, everyone. Welcome back to the new Possibilities podcast. We are really excited to join you on the second episode of our series called Understanding the Paediatric Population. If you haven't listened to the first episode, you might want to stop now and go back, because we'll just be continuing on our conversation about child development. And last episode, we talked a bit more about the bigger picture of where it fits within our OT process and OT scope. But in this episode, we are hoping to give a little bit more practical, clinical examples of how we use our understanding of child development when supporting children with diverse needs. So I think we should just get straight into it, Larissa.

**Larissa Ferrari**

Yeah, I agree. So just for the people who listened to the episode two weeks ago, and they might be a little bit lost – “Oh, my gosh, can't remember so many things that happened”. So refreshing our memory, let's just remember that we spoke that child development milestones is important, however, not the only thing we should be looking at and they should not be, what the terms with where the child should be or where we should push them to be in any way. So there's so much to it. We have to look at the context, the goals, the families, the culture, and especially how are they performing and what difficulties they are encountering in their performance.

So I think going from there, we can start thinking of, okay, how we can support our families, how we can set up these goals, how we can make those links in a practical way.

**Mahek Bansal**

Definitely. -when we think about our OT process, obviously, we have, or at least, the OT process can look different practically, depending on where you work or the model you work with or, you know, things like that.

**Larissa Ferrari**

Given the population.

**Mahek Bansal**

Yeah, the population, everything like that. But a very, like, general overview is usually you'll start with gathering some information, how, whatever that looks like, setting some goals or, and then starting some type of intervention, if that's what is required. In terms of then the. How child development fits into that OT process. As we touched on in the last episode, we need to have an understanding of child development so that when we're gathering information, we can use the information to get a bit of an understanding of where the sequence of development fits for this child and when we are, you know, collaborating with the family to understand what are their meaningful occupations, what's the current, function or level of performance for this child.

We can use our understanding of child development to think about the trajectory. What do you think, Larissa?

**Larissa Ferrari**

I agree with you. I feel like depending on the child's age, they're very different things we'll be

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looking at in terms of child development. Of course, younger children, we're talking about reaching these bigger milestones. In older children we probably want to collaborate with the families to understand how that was achieved in the past, if they were achieved or not, and then maybe to understand more the child development in terms of their independent participation. So age is a big thing. However, we should investigate all of these things with the families when we try to understand how this child development could be impacting participation, if that makes sense.

**Mahek Bansal**

Yes. What you said there was really important that it supports our understanding of child development, not only supports us to, in terms of goal setting and intervention for working towards independent participation, for whatever our meaningful occupations, but also, I think looking back in the past on the sequence of development for that child might give us an understanding of the current level of function right now and what might be impacting on that. We don't, as we've said previously, children don't need to, at nine months they have to do this, at ten months they have to do this. It's really impacted by a lot of factors. However, sometimes when we miss key developmental milestones, it can have functional impacts in the future.

And it's not that we necessarily need to go back and re-teach all those milestones, but we need to be able to flag that for our own clinical reasoning to understand what might be the reasons that the child is presenting in the way that they are right now so that we can support them with goal achievement.

**Larissa Ferrari**

Yeah, that reminds me of uni when we're talking about activity analysis. It's where we compare the functional participation, require these skills, and if we look back in child development, some of these keys, they will be the foundation skills for this specific activity, and that's where we should be looking at. So what are the skills that specific key milestone was working on that would support this activity? So I don't have to engage the child in these key milestones anymore, but I can work on fundamental skills during the activity, or maybe in another activity in a different way, in a more age appropriate functional way, so we can support the child participation.

**Mahek Bansal**

So I think maybe we should give an example, Larissa, of what we mean, and I think a really clear one, is crawling. So I think it's really common for children, or not really common, but many children miss crawling, or they go straight to walking, and crawling is a big developmental milestone in very early development. And, you know, when you have a child that you're working with who, you know, might be a toddler or preschool age or even older school age child, and you're supporting them with their goals, their meaningful occupations, and you see that, oh, actually, they, you know, the parents reported they never crawled or they missed the crawling milestone. How would we see that impact function, Larissa? And how would we work on that?

We're not going to ask a six year old child learn how to crawl now, but how would we then work on that to support goal achievement?

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That's a great question. I had actually a very young client that was not crawling. Mum was concerned about this, and we managed to engage in a very interesting conversation about what crawling means for us OT's because they might mean different things for any other health professionals. Because we occupational therapists, we work a lot with functional, we as human beings, we use a lot of our upper limbs, our bilateral coordination, our postural control. And when we think of crawling, I think the main thing for me Mahek, and you might think differently for me is that we want that with bearing on shoulders, we want the shoulders to get stronger. We want the child to be able to engage in asymmetrical bilateral coordination. So we want one hand to be one movement while the other hand supports the body and vice versa.

So we want to have this rhythm, movement of both sides of the body as well, contraction and co-contraction of different muscles. We want to have that vestibular opportunity of leaning forward, looking up, looking down, supporting our body, we're exploring toys. So crawling is not just crawling. So all of these will support a child to engage with toys, to have a mature vestibular system, to have great skills, fundamental skills, to engage in handwriting, cutting with scissors. So all of these things. Does it mean that crawling will automatically make all of this work? Well, no, it just means that it's one of the ways our body gets ready for these things. So to support the fundamental skill.

So if the child is presenting with some concerns in these areas that I've mentioned, like with their handwriting, their cutting skills, free handwriting skills, or eye hand coordination, and then we realised that the child never engaged in crawling. They're older, but they are not crawling as much as well, because they just grew out of it. So then I'm not getting the child to crawl again. But I know that these fundamental skills that I should be looking at, I can do it in different ways and see how the child is performing, and we navigate in between the top down and bottom up approach we've mentioned in the past. So we look at the fundamental skill, we look at the function, the participation, per se, and then we see how we can better support this child. Does that make sense?

That was a little bit too long, but I think it's just our brains trying to be explained in words.

**Mahek Bansal**

I think, you know, we use crawling as an example, but what were basically talking about there is we've highlighted a developmental milestone that's been missed and what we've done is we've broken down. We've used that bottom up approach to break down the underlying skills that this milestone supports development of. So we highlighted, you know, as you said, upper limb strength, bilateral coordination, like postural control, all of these things. And we've then thought about, okay, what is the functional task or the occupation we're working on right now? Is it handwriting? Is it cutting? Is it riding a bike? What are these things? And how do these underlying skills impact the function of the task that we are working on right now?

So, as you said, if we're working on handwriting, then, okay, the postural control to maintain a seated position, or if it's cutting, the bilateral coordination, things like that. And we can then

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use other activities, more age appropriate and strengths based activities, to work on these underlying skills, rather than going back to the milestone that was missed.

**Larissa Ferrari**

Now Mahek, I think, have a challenge for us. Like crawling and the underlying skill, they are a little bit easier to navigate, but I think one of the main things we work with in our population is pretend play. So I wonder if we could do a little bit of this conversation involving pretend play. So, this is a very important part of child development, but so much dependent on so many factors, and it can impact so many other factors. So, what about we get the challenge to talk about now?

**Mahek Bansal**

Definitely. So, pretend play, it supports so many different areas of child development. We've got the language; we've got the social component. There's a lot of cognitive skills that develop through pretend play, the joint attention, things like that. And pretend play, as you said, it is very impacted by our individual situation, our environment, what's meaningful for our family. It's something that we commonly see in practice, supporting children's pretend play skills. What do you do, Larissa?

**Larissa Ferrari**

I agree with you. The amount of things that is involved in pretend play, the amount of things children are learning and processing. I think that's why it's hard for some adults to understand the importance, because we can't remember, how much we've processed when we were younger. But also, I think sometimes we misjudge play as adults, and we don't understand how much serious this should be taking. Us as adults, we talk about our problems, we think about our problems, our reasoning part of our brain is a little bit more improved. And I said a little bit because I feel like it's never fully. So it is a little bit more developed in a sense that we can navigate through these thoughts and feelings and try to reason. And for our children, they do that through play a lot.

So they bring a lot of context about how they feel, how they see the world, how they are ready for rules, or they are not ready for some of social rules and how they develop their understanding of social rules and social communication, and so many things that are important for us as adults, as well. So it, as you say, looking at that in the clinic, it's almost like understanding the functional goal and how the parents are expressing their concerns with the child participation, and then literally playing with their child and observing where they're at. How much they're expressing, how much they are understanding of the world, and then trying to make that correlation and support growth through play. The amount of things we can work in that is infinite.

And I think that's why it's a challenge for us to talk about that.

**Mahek Bansal**

I find that when I'm supporting pretend play, it really my intervention approach or my clinical reasoning in choosing an intervention approach is quite guided by the by knowing that this is an area I need to support with. What I mean is that pretend play requires a lot of intrinsic motivation and interest. It's not playful. If I'm not interested in it or if I. I'm not engaged in it, then I'm not playing. Right. Play requires this set has this connotation with a sense of joy and

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a sense of curiosity. So if I'm working in pretend play, then immediately I know my intervention approach needs to be somewhat child led or, you know, incorporating the strengths and interests of the child. That should be usually with every intervention approach.

But I'm probably going to take a bit more of an unstructured intervention method to try and engage this child in what is really interesting to them so that they have this really big intrinsic motivation and then trying to support and add on to their play. That's where it's really important to have that understanding and look at that again, bottom up and top down to then use that information to guide our intervention. Because when I'm working in pretend play, I'm probably using more of a, you know, DIR approach or thinking about how I'm structuring my environment and what toys or things in my environment I'm having available for the child and then seeing how the child is interacting with these things in a playful way to then build upon that.

**Larissa Ferrari**

And I think, Mahek, maybe we can add these as a result, but I think as paediatric OT's, we are guided by the fact that learning is optimal when the child is or when a person, this is for everyone, when we have attention, arousal, and an appropriate emotional regulation to be present and attentive to that. Let's call it lesson. So when we're talking about play, we're talking about a child, when we want a child to learn through play or to learn how to play, we need to have all of these components.

We need to have great attention, a good level of arousal, and a good level of emotional regulation for them to be present in the session and engage in the session in that play. Which means that us as adults, we and therapists, we are the ones who have to be flexible enough to change our play, to collaborate with their play. So it's not that I'm planning on playing with tigers. The child has no interest in tigers. So it's up to me to be flexible here to give up on the tigers and as I said, be more child led and engage with their interests and build from their interests. And that requires so much energy right Mahek. We need to be as creative and as in tune as we can be to meet the child where they're at.

**Mahek Bansal**

Exactly. I think one other area that really comes to mind in terms of child development is school readiness. And I think that this is quite a big topic and more big recently. I think school readiness is very much in the past and still now guided by developmental milestones. You know, what can this child do or what do they need to be able to do to be ready for school? And in the past, a lot of it has been around, you know, can the child write their name? Can the child write their shapes? Can the child, you know, have this level of language? Can they sit in a group? All of these things as almost like a checklist to say, okay, yep, they can do all of these things so they're ready for school.

And I think more recently there has been a lot more information, evidence as well as post COVID around what is actually the essential skills for children to thrive in the school environment. And a lot of these things are, you know, learning to write their name and things like that. While it is helpful for them to be able to do that before because it sets a foundation, they're going to school to learn skills. So we also need to support their regulation, positive social interactions, their level of arousal. And these foundational skills are being highlighted more and more as increasingly important for starting school.

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So where the child development part fits in is that, yes, we are very aware of these developmental milestones, but when we're supporting a child that is starting school soon, or our goal is around supporting them for a successful transition to school, we need to also understand, again, where is this child at? Also understand maybe the type of school environment that is going to be the most supportive for them. And what are the foundational skills or what are these skills that are actually going to help them more holistically in terms of participation, engagement, positive experiences in school, these things that are actually going to support their wellbeing more than the checklist like fine motor, gross motor skills.

**Larissa Ferrari**

Yes, this is a great topic. And I agree with you that we are having a better holistic look at the school of readiness, preparation or state. And I also feel like Mahek, in Australia, it is a big step to go from a childcare or preschool setting and then transition to school. It's very different. It has a different structure and I would say it's very different because for children I think these minor differences are big things. But I also feel like we never know if that's going to be better for the child because it is more structured or the child will face some difficulties. So again, it's looking at not only their child and their skills, but the environment, what they need, how they benefit from strategies and how then they can be supported in a section like that.

And I think if we're talking about child development, it's also understanding that before school age, so the school readiness, when they're getting to that age, there are some underlying foundations, like were talking about the crawling, like their pretence, like their social communication, like their sensory motor engagement in activities that can impact their confidence. And this is such a big thing for school readiness. So if I'm experiencing some frustration from early age when I have to transition to big school, I can already have some impact on my confidence. And these could be seen as behavioural concerns, but they're actually so much more than that. They actually mean that the child had some previous not so good experiences, and the child is so used in not doing things well that they actually learned that not doing well on purpose is actually a choice.

It's not a failure. So I think confidence is a big thing for us to look at and understand how much that impacts their participation in the school setting or school readiness. Being school ready.

**Mahek Bansal**

So I think we've given a few examples, Larissa, and I hope that what people have taken away from it is that child development, or our understanding of child development, is a piece of this bigger picture of how we support children and families with what's meaningful to them, their current functional performance, and how we use that understanding in terms of setting goals and choosing intervention and things like that. We can continue providing examples, but I think it's what we need to take away from it is how we, in these situations, our thought processes of how we are setting realistic goals, supporting with participation, with engagement, with independence. These things in meaningful occupations are more important than, you know, supporting a three year old child to meet their three year old milestones.

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I think that as occupational therapists, we really need to have, you know, that bigger picture that we talked about in our last episode and meet it with the situation of the family. And that bridge is made through our clinical reasoning. And that way, we are being really holistic, and we are meeting the child with where they're at and supporting realistic expectations as well for the people around them.

**Larissa Ferrari**

If I can give one tip for people who are getting into the paediatric occupational therapies, for now, it could be quite overwhelming the amount of courses, workshops, theories that we have in paediatric OT. So if I could give one tip when it comes to child development in paediatric OT is to go back to your meaningful occupational performance goals and activity analysis. This is your golden standard. Every other course and workshop and theories you're going to learn will come after that. That's our foundational skills in our OT development, activity analysis, occupational performance, and meaningful goals in looking at the child in their environment and taking into consideration everyone involved and, of course, considering child development. This is the best place we can start. It seems simple, but it's a major thing.

That's where all our clinical reasoning began, in paediatric OT.

**Mahek Bansal**

That's a great tip, Larissa, and we might leave everyone there. We have one more episode in this series, so please stay tuned. It's going to come out in a couple of weeks, but until then, we have had an amazing time talking with you. And please feel free to connect with us if you have any tips, experiences, things you'd like to share, we would love to hear from you, but until then, we will see you in our next episode. Bye.