EPISODE 30 - Infancy and Growth

Transcript

I wanted to share the story that officially convinced me to become a Lactation Consultant. I share this story because it's a great lesson. But on top of that, it'll teach you more about the Baby Friendly Hospital Initiative if you're asked about it on the exam. And if not, you'll learn something new which is my jam. Several years ago, I was asked to be on the Baby Friendly committee at work. I had no idea what it was when I first heard about it. But I loved the idea of anything with the words Baby and Friendly in the name. The Baby Friendly Hospital Initiative is a worldwide program that was launched by the World Health Organization and UNICEF with the goal of promoting successful breastfeeding. When I was asked to be on the committee, I was a Certified Lactation Educator. I had already taken a course in Lactation Education because I was always drawn to babies and breastfeeding. Being asked to be on this committee was perfect for me. I jumped on the opportunity as soon as I heard they needed dietitian representation on the committee. I didn't know too much about it at the time which was fine. That's the point. Join and learn. If a hospital isn't Baby Friendly by designation, it doesn't mean they're not friendly to babies. But it does mean the hospital doesn't have the Baby Friendly Hospital Initiative designation and may or may not follow the 10 steps to successful breastfeeding. And those 10 steps have been outlined as key steps for promoting breastfeeding and are also required in order to receive the designation. The goal of the Baby Friendly Initiative is to encourage and promote breastfeeding and we know there are some key things that can help improve the success rates of breastfeeding. Of course, it doesn't mean that if these steps aren't followed someone won't successfully breastfeed. I had my babies at a hospital that wasn't baby friendly and they did many things that directly went against the baby friendly initiative. But before I go into the 10 steps, I seriously hope that as a dietitian, you take advantage of opportunities like this. It can change the course of your career and your life. I was so inspired by everything I learned while working on that committee that I decided to become a lactation consultant because of it. I wanted to learn more and the Lactation Consultant who was on the committee with me was so fabulous. She became a good friend of mine and supported me through my journey to become a Lactation Consultant.

I know we can be so busy but I'm a huge advocate for joining teams and being part of the interdisciplinary team. Your role matters. You not only contribute so much as a dietitian, you also learn and grow with every opportunity.

Ok. One of the requirements to achieve the Baby Friendly Hospital Initiative is that the committee is multidisciplinary. Everyone has an important seat at the table. I was the dietitian representing nutrition. There

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were lactation consultants, physicians both from OB-GYN as well as pediatrics, nursing which included nurse practitioners, nurse managers and bedside nurses, hospital administration was there and we often had guests who would come and check in to see how we were doing with our efforts. I left every meeting with so much joy and excitement. I found my thing. I loved it so much.

As a dietitian who's worked in the postpartum unit for many years or cross-covered that unit, I've learned that the decision to breastfeed largely happens during the prenatal period which is why lactation education is so incredibly important as part of prenatal care.

So this brings me to the 10 Steps to Successful breastfeeding outlined by the Baby Friendly Hospital Initiative. Here they are:

1) The hospital must comply with the International Code of Marketing of Breastmilk Substitutes and have a written infant feeding policy that everyone's aware of including the staff and new parents. Also, data collection and monitoring is on-going because the hospital will be re-surveyed. But beyond that, it's good to know how things are going so improvements can be made as needed.
2) The staff need to be educated and have the skills and knowledge to support breastfeeding. This doesn't mean everyone has to be a Lactation Consultant but the staff working with breastfeeding parents needs to have the knowledge to be able to help and support these families which usually requires some courses and training.
3) Families need to be informed and educated about the importance of breastfeeding. It's important for everyone to support the parents in order to encourage breastfeeding.
4) Skin-to-skin contact needs to happen as soon as possible after birth. Typically, when everything goes well, the baby can be placed on the chest skin-to-skin. I could talk about skin-to-skin for a long time which I won't right now. But I think it's important to know how many benefits there are for the baby to be held skin-to-skin. And it also helps with promoting milk production.
5) Supporting breastfeeding and working through the challenges that can commonly happen such as difficulties getting the baby to latch for example is an important step. These are things the staff who are trained can support with and if there's a need, placing a consult to the Lactation Consultant can help.
6) Newborns shouldn't be given anything other than breastmilk unless there's a medical need. This means that breastmilk should be the only food or fluid given to the baby.
7) Infants should room in which means no more baby nurseries. Honestly, many hospitals have rooming in now even if they don't have the Baby Friendly Hospital Initiative designation.

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8) New parents should be supported in order to recognize feeding cues. Here's a hint. Crying is a late feeding cue. Babies give lots of subtle hints that they're hungry. Things like looking around, licking their lips, rooting, and when all their cues or hints that their hungry are missed, they then cry.
9) Parents should know the risks of using bottles, and pacifiers. Breastfeeding should be well established before giving bottles and pacifiers.
10) And lastly, parents need to have ongoing breastfeeding support once they're discharged.

So that's Baby Friendly in a nutshell. Something I want to mention is that I truly believe the role of a Lactation Consultant is to support breastfeeding parents. Support to me means I'm there for them, whatever they need. Which could be to offer an ear to hear their concerns, it could mean comforting them by letting them know their concerns are valid and often times common. I've helped so many friends and almost all of them have been in tears with me at some point during the initial period after giving birth. Because new parents wants the best for their baby and especially for new parents, everything can be overwhelming. Having someone to listen to you and to hold your hand is sometimes all you need. And for me, it's really important to me that the baby grows and gets the nutrition they need. So if the baby isn't growing or there's issues with milk transfer that interferes with the baby's growth, other interventions may be necessary. I don't believe in bullying or forcing. I believe in supporting and comforting those who need us the most. And that can look very different depending who you're working with which is why taking things case by case is so important.

[Music and Intro]

Hey there. Today's episode covers pediatrics. This topic is an entire specialty so I can't cover every single thing but I wanted to review some concepts that might pop up and if not, you should know if you work in pediatrics or ever find yourself cross covering pediatrics. Pediatrics basically covers anyone from birth to adulthood which can be up to 20 years of age. The growth charts we use go up to 20 years old which is a huge range. This is one of the reasons pediatrics can be challenging because one minute you're helping an infant and the next minute you have a 5 year and then a 13 year old and then a 17 year old. Having a good understanding of developmental changes that happen at each stage is really important and you'll have to help with all different conditions that affect any age group within the pediatric range when working in peds. If you're at a big pediatric hospital where everyone there are pediatric patients, dietitians tend to be more specialized. For example, a pediatric dietitian might work in cardiology so they'll see all the kids with cardiac conditions. They'll still see kids of all different ages but the common thing amongst them all is that they have a cardiac condition. But if you're at a hospital that has a pediatric unit and you're the dietitian covering that unit, you will likely be required to see everyone which

means all ages and all conditions. That's how it was for me. Honestly, it was such a great experience. For this episode, I'm gonna cover the infancy period.

But before we get started, I wanted to give a shout out to another fabulous new RD. It brings me so much joy to celebrate all the new RD's on this podcast. Heather Brunk just passed the RD Exam. Congratulations Heather. Welcome to this incredible community. The world just gained another much needed dietitian.

Ok so let's start by reviewing birthweight. Babies are born at different birthrights but there is a normal birthweight range. Just like there's BMI ranges in adults, there's birthweight ranges too. So a birthweight that's considered to be normal is a birthweight between 2500-4000 grams. This puts the infant in a percentile range between 10th and 90th percentile. In pediatrics, we plot babies on a growth chart. We look at percentiles but also at Z-scores. On a growth chart when looking at percentiles, you'll see 3, 5, 10, 25, 50, 75, 90, 95, and 97th percentile points. 50th percentile is average or right in the middle. Also called the midline. When using percentiles, it can be hard for anyone who falls above the 97th percentile or below the 3rd percentile which is when Z-scores are helpful. Z-scores is the standard deviation above or below the mean or the average. So the 50th percentile on the growth chart would be a Z-score of 0. It's the average point. Keep in mind that most EMR's or Electronic Medical Records automatically plot the percentiles on the growth chart as well as the Z-score. So if someone has a Z-score of +1, they're at the 85th percentile and a Z-score of -1 plots them at the 15th percentile. The Z-scores run positive and negative. The further away a child plots from a standard deviation of 0 or a Z-score of 0, it means they're at risk of undernutrition or over nutrition. So for example, a Z-score of -3 means the child is at risk of undernutrition.

If the measurements are accurate and plotted accurately, the growth charts give a good idea of growth. I have to be honest this is a limitation. I've seen many kids who shrink which of course, I know they didn't. The measurements were off. I often ask for measurements to be retaken. When the measurements are accurate, we want to see kids following their own growth cure. Small parents will likely have children who plot lower on the growth curve. The culprit is genetics. The same for tall parents who will likely have children who plot higher on the growth curve. Growth charts are helpful when we see children jump or drop percentiles or move further way from a Z-score of 0 either in the positive or negative direction. So let me give you an example. If you see a child who dropped from the 25th percentile down to the 5th percentile, that would be something to look at.

So let's go over growth charts in a little more detail. For children from birth to 2 years of age, we use the WHO growth charts. The World Health Organization growth charts. Those growth charts assess weight for age, length for age, weight for length (like the BMI for older kids) and head circumference. Once children are 24 months,

they're then plotted on the CDC growth charts which are for kids 2-20 years of age. The CDC growth charts look at weight for age, height for age and BMI for age. So let's breakdown the percentiles for BMI. If a child has a BMI < 5th percentile, it's an indication the child is underweight. Normal weight is a BMI of 5th to 84th percentile. For children who are 85th to 94th percentile, they're considered overweight. A BMI at 95th percentile or above is classified as obese. So just like in adults, the BMI for children is categorized like in adults. As we know, there are some things that can influence BMI. I used to have a family of football players. Their BMI was > 95th percentile but they were extremely muscular. So in those cases, you need to use your clinical judgment when giving recommendations. Up until 2 years of age, the length should be taken laying down. It's more accurate. Another point I want to make is that you can't look at weight for age and determine underweight or overweight by itself because the child might be small or tall. You have to look at the child as a whole. Maybe they're small genetically or they're tall genetically. This is why we look at several growth parameters when completing a thorough nutrition assessment.

Before I move on to weight classifications at birth, I wanted to mention something. If an infant or toddler is malnourished, the first thing to change is the weight. If malnutrition continues, the length is then affected. And finally, if it continues, the head circumference will go. The body does what it can to protect the brain. You'll see the brain affected by malnutrition up to around 36 months or 3 years.

Ok so let's go over classifications of weight at birth. I just mentioned a normal birthweight is 2500-4000 grams. A low birthweight is when the child is born less than 2500 grams. A very low birthweight is when a baby is born less than 1500 grams. And an extremely low birthweight is when the birthweight is less than 1000 grams.

I remember when I started cross covering the NICU. I was training with the NICU dietitian and was so surprised at how small the babies were. The NICU in my internship had a NICU but it was small and didn't have very sick babies. I also didn't get the opportunity to see any of the babies because it wasn't part of my rotation. So I hadn't really seen super tiny babies in the NICU until I actually covered the NICU. Of course I saw pictures of extremely premature babies but it was nothing compared to seeing these babies in real life. After my training was over, it was time for me to actually cover the NICU. Ooh, I remember that first day. I was so scared. I remember worrying I'd mess up and do everything wrong. I was worried I wouldn't remember anything I learned when training with my co-worker and friend. I hoped the doctors wouldn't ask me questions or read my notes in case I made a mistake. And I'm sure I stayed awake at night during that two week period worrying I messed up, waiting to go back to work to undo my mistake but not really certain where I messed up. I think my feelings are relatable. I know a lot of dietitians have felt that way. The amount of sleep I've lost staying up at night worrying is crazy. And I still stay awake sometimes. Well, as luck would have it, a new baby was born while I was in the NICU. Born at 24

weeks and weighed around 450 grams. I gotta tell you, I couldn't believe how small this baby was. I was in the NICU when the baby was transferred in. The baby started on all the protocols. I brought my binder home. I went over all my notes. I reviewed NICU nutrition. I mean, I wanted to be ready to help this baby. The next day, I reviewed the medical record and completed my assessment. I spoke with the team, and wrote my note. And then I worried. Of course, I missed some things in my note. But it wasn't bad - especially for a first NICU note on my own. So if you're feeling that way, the truth is, we all question ourselves at some point. Anytime you do something new, it's not your absolute best but with time, you get better. With time, my NICU notes got better and by the time my friend came back from her vacation, my notes were better and I was getting faster. And eventually, I ended up becoming the NICU dietitian. Training in the NICU, being willing to cross cover, and open to learning is what opened that door for me. The same can happen for you too.

Ok. So we talked about weight classifications at birth. Let's go over a couple other terms that are helpful. Plus you should know them.

Small for Gestational Age which is abbreviation SGA is when babies are born less than 10th percentile for their age. There are growth charts for premature infants so that's what we use when working with neonates. If a baby is Appropriate for Gestational Age it means they're between 10th and 90th percentile for their age. You'll see this abbreviated AGA. And lastly, babies who are Large for Gestational Age have a greater than 90th percentile for age. This is abbreviated LGA. Another term you should be aware of is IUGR which stands for Intrauterine Growth Restriction. This term is used when a baby doesn't grow to normal weight during pregnancy. There are many reasons a baby may not grow as expected in the womb. Some potential reasons are infection, substance use such as smoking, drinking or drugs, multiple gestation which means a pregnancy with twins or triplets or the baby may have a birth defect. So those are some terms to be aware of. If you need to make some notes to remember these, be sure to do that. That's how I study and remember things best. I write things down over and over again. I find it sticks that way.

Ok. I want to go over calories. When comparing infants to any other stage of life, they need the most calories per kg than any other age group. There's a lot of calculations and equations out there and I've tested and used them all. Most places I've been to use kcal/kg because it's easier, it's accurate and it's most recognized. Also, that's what we use in the NICU and in pediatrics - in most cases. So yes, babies get way less calories than adults do but when you look at their weight, they get the most per kg of body weight. An average adult with a normal BMI and no health issues needs around 25-30 kcal/kg. But the DRI for a newborn is 102 kcal/kg. Of course, their kg is much tinier because they're babies but when you look at how many calories they need per kg, it's much higher. And premature babies need even more. It varies depending on what type of nutrition they're getting. Whenever a

baby or anyone for that matter, is getting IV nutrition or Parenteral Nutrition, they need slightly less because they don't burn calories in the digestive process. The nutrition goes directly to the bloodstream where it's used by the body. Digestion burns calories so the calorie needs go down when getting IV nutrition. Something to keep in mind.

And the last thing I want to cover is growth. Not growth charts. But growth parameters during infancy. When babies are born, they naturally lose weight. C-section babies may lose more than babies born vaginally because they don't get squeeze going through the birth canal. But either way, the usual weight loss after birth is around 6% of their birthweight. And they have 10-14 days to regain that birthweight. By 4-6 months they'll double their birthweight and by the time they're 1 year old, they'll triple their birthweight.

So let's recap what you learned in this episode. You learned about growth charts including percentiles and Z-scores. You learned about weight classification at birth and calorie needs during infancy.

And if you're feeling like you don't know what you're doing because you're doing something for the first time, remember, we've all been there. I certainly have. I know what it feels like to be super afraid and worried I'd mess up and make a big mistake. Or not do something perfect. But that's when amazing growth happens. It feels so good to do something for the first time and conquer it. And it doesn't have to be perfect. Remember, perfection doesn't exist. You just have to do it. You just have to get over the hill. No one runs before walking. You have to learn how to put one foot in front of the other before you can be coordinated enough to do it super fast to turn into a run. So give yourself the time to build your skills. Add to what you know. Get better and before you know it, you'll be able to do your work with ease. And when that happens, I challenge you to learn new things. Join committees or groups. Keep learning.

And in the meantime, keep doing what you're doing. And remember to stay on top of your study game. There's no limits to achieving the success you so deeply desire. Until next time.

[Music and Outro]