

Introduction to Maternal Infant Young Children Nutrition
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Key points of Maternal, Infant & Young Child Nutrition

Hello, everyone. So, this is my last part of the last session. It is basically, I will be talking more about the conclusion of this whole Maternal Infant and Child Nutrition course, I hope you enjoyed it, this is all this whatever that we have mentioned, has come, of course, from field experiences. But we have also conducted research in many areas.

And it has, this all evidence based, but as I mentioned, we are still learning. And every time that we help mother, every time that we teach her different techniques of breastfeeding, or every time we discuss with mothers on complementary foods, and we actually try in the field, every child teaches us new things.

So, I am sure, you all would feel the same, that you will experience learning, throughout your life. So, one thing I want to kind of tell you that this, as you learn, please share your experience with us. Because this was more of a sharing, of course, through NPTEL it was more of a one-way session, except for like Q&A sessions.

But, I would like to learn from you all your experiences, it would matter a lot to me. Now, just talking about different phases of maternal, infant, young child nutrition, and I want to kind of start with Pre-pregnancy nutrition, adolescence nutrition. Focus on protein, please avoid junk food. We are seeing lot of PCOD's, PCOS, polycystic ovarian syndrome, polycystic ovarian diseases in children.

So, adolescents I am talking about and then they have, when they get married, they have infertility problems. So, do avoid junk food, do avoid too much of carbohydrate, decrease your carbohydrate intake, remarkably, increase your protein intake, increase your good fat intake. And that will basically help get you into good health, do muscle resistant exercise to tell them to do lot of play sports to kind of, if they have access to sports arena, like swimming pools, they can do swimming or they can do dancing.

They can do whatever they want, but I prefer that they are very active, avoid lot of screen, avoid social media, also I do recommend holistic health. So, for example, I do recommend that if adolescent can go through meditation courses or some of those that would really help them a lot. Pre-pregnancy, similar, same thing as I mentioned in adolescent, you are preparing your body for conception. So, focus again on your protein, focus on your nutrient which are not easily available, like your B12, choline, those nutrients are really important, iron is important. India is struggling with iron deficiency anaemia. So, do focus on those nutrients.

Again, keep the carbohydrate content low in the diet. Sugar, jaggery, absolutely I do not recommend it at all. For lactating mothers, pregnant mothers, similar things as you watch the nutrient count of day-to-day foods, you will definitely now know that what food to recommend to pregnant and lactating mothers also. Lactating mothers, when I get lot of queries from mothers, whether she should have Shatavari? Whether she should have methi seeds? So, whether she should have moringa leaves? Yes, of course you can have it. But believe me, your output will increase when baby gets good milk transfer. So, it is basically demand and supply.

So, if demand is more, means if the more milk is get kind of pulled out from mother's breast by proper latching, proper milk transfer will automatically will increase mother's supply. That is nature's way to protect the baby to make the baby grow. If the milk pulling off the milk transfer is not good, milk is being developed, but my baby is not being able to latch properly and get that milk out, or however hard you try with all these galactagogues, eventually it will decrease. So, just to make sure that focus on the technicality aspect.

For pregnant mothers, I strongly recommend that besides working on nutrition, at I see arounds 8 month to 9 months, around 8 months, for last 2 months of pregnancy. I insist that mothers should learn proper breastfeeding technique, and cross-cradle hold really work so well. Any or, whatever works for you it is fine, but in my program, I have seen remarkable results with cross-cradle hold technique.

So, please teach mother those counselling points which are important teach her, how to look for hindmilk? How does she know whether is foremilk, hindmilk? Talk about night-time feeding, teach her all, this is a concept. Because what is happened, and this is this has been my experience that all these mothers, they come to us, I am talking about the educated mothers, privileged mothers, they come from corporate hospitals to us, after 1 month of

undergoing so much of complication of lactation, just because they were not guided properly during pregnancy. And when mothers were in the hospital, as well as when she went home.

So, I do recommend that please kind of prepare your client, pregnant clients in the last trimester. Teach her about breast crawl. Teach her about nipple shield complication, tell her that she does not need nipple shield. So, even if somebody offers nipple shield in the hospital, she should immediately refuse it to say no, I do not need it, I know how to breastfeed, I know how to latch the baby.

So, if she is confident, believe me, she will have such a beautiful journey as soon as baby comes out. Also teach her how to breastfeed the baby, if she has caesarean section, teach her how to manually express, because, believe me, 99 percent of doctors would say you have his caesarean section, you cannot breastfeed the child because milk does not come in. And that is absolutely, it is a myth.

So, you teach her how to do press, compress, release, how to if baby has difficulty latching, do not rush to start formula, do not rush, teach mothers all this different kind of survival mechanism before she goes into delivery. So, teach her how to express, teach her how to store that milk, teach her how to kind of feed the baby with spoon, direct latching when the mothers is in caesarean section, also while she is in post-caesarean, when she is in the hospital for 4-5 days, teach her how to put the baby kind of, we have shown that in a tutorial.

So, prepare her, prepare her with that, prepare her with all this, these are her tools. When everybody is against breastfeeding in the hospital, all these tools that you have taught her will come in the use. So, do that. And, as of course lactating mothers, more she is prepared during pregnancy, better it is do talk about her nutrition, she will required good amount of protein and other nutrient dense food, give her energy in the form of good fats. Again, do not give too much of carbohydrate, especially starch. Give them good carbohydrates like all the different vegetables, above the ground grown vegetables. All that of course, absolutely.

Millets are really good, leafy vegetables extremely good, your daals, your dairy products for lactating mothers, amazing, seeds, nuts, so focus on this nutrient dense food rather than just rotis and rice, roti rice and laddoos. After baby is born, as I said about the baby now, so again, teach mothers or show her some tutorials on how to take care of new-born babies, her like, lot time I see babies are wrapped so many times, so babies are not properly especially low birth weight babies are not given proper KMC so that is also very important. So, you have all this access to all this health spoken tutorials.

So, do use them in your practice, and just kind of be very empathetic, and think of how if you have gone through all this thing, what would have helped you, and just support this mother as your own sister or as your own friend, and it will go a long way, it will be easier for you also to manage all this issues, it will, you will not find any complication, if everything goes right, and that is again, it is in your hand how well prepared your client is from the time of pregnancy. And then comes your complementary feeding stage. So, what I do recommend is to, of course, always give information about exclusive breastfeeding for 6 months of age.

But I do recommend to sensitize mother, I think by the time child is 4 months old, you just sensitize her, sensitize her about a dietary diversity, sensitize her about picky eating and all that how to start complementary feeding, sensitize her about personal hygiene, how to store food, talk about food that she can start with once baby finishes 6 months.

So, you can basically start as you had trained this mother during last trimester about breastfeeding. Similarly, I want you to train these mothers, when baby is 4 months of age, keep sensitizing her, so as soon as baby is 6 months old, then she will know what to do. And one more thing, I want all lactation consultant to know, is good to follow up these babies.

So, if you have helped this mother with lactation in say, first 3-4 days in the hospital, I want you to follow these babies up. At least check the weight, make sure that whatever advice you are given is it helped or not? Because I get so many mothers from all over India, they say that, I had this lactation consultant in the hospital.

But then, I do not like, I am not in touch with her. So, then how will you learn, whether, whatever advice you gave worked or not. So, if you really want to learn from the field, I would not let that baby go till you see demonstrate 40 to 50 grams of weight gain per day, for next 2-3 weeks, because that is what WHO recommends, 42- or 43-grams weight gain per day for at least up to fifth week.

So, I would recommend at least monitor those babies and see your advices are working or not. Because if it is not working, that means you want to relearn or you want to understand where you are going wrong. Again, once a child turns 6 months or complete 6 months, again, you will have to handhold the mother for probably next couple of months or so.

Because she is always sceptical about what food should I start? What should I give, whether I can give egg or not? Whether I can give meat or not? Whether I can do this or not? As you guys had question, mothers have much, many more questions. So, please guide them

properly, sensitize them in between 4 to 6 months of age, so that the initiation of complementary feeding goes so well, that you will be so happy.

And you will actually, when you use lot of these apps, there is one app that I really like it is called child growth tracker. On the logo is basically the baby is climbing on the stairs, or the ladder. So, so that is basically, that is child growth tracker. And, you follow those babies and put that baby's growth on those tracker, and you will see how babies grow so beautifully.

And when you start a nutrient dense food, like beans, or nuts and seeds and eggs and meats, you will see children length to grow beautifully, and focus on length after 6 months, because you were focused on weight for 6 months, now comes the length, because now if child is not growing in length. And if child is growing only on weight, that means child is getting a lot more energy dense food, that means child is not getting enough nutrients, most likely it is protein and some of this Type II nutrients which I mentioned.

So, for after 6 months of age, I generally look at the length aspect and if length is growing well, and if child has already had good weight at 6 months of age, every child to not gain so much of weight, as recommended by WHO, I do not worry too much because if the length is growing, that means child is getting enough nutrients, yes, you may need to increase some calories in the form of good fats.

So, do not give too much of this starch or potatoes or rice or, lot of these fruits to gain child's weight, you gain child's height, and to get weight going, I do recommend to give more amount of good fats again, in the form of egg or your meats, your ghee, your yogurt with full fat, so all that will definitely improve the calorie intake, but you want to have good calories, you do not want to have calories, which are empty calories.

Again, I am not going too much into calorie more because, you can have a good calorie and bad calorie, but if you see a child growing very well in height, and not so much on weight. So, then you may need to increase your fat intake, baby's fat intake, all right. So, that comes your complementary feeding stage. One more thing, which I have also noticed that many mothers start junk food very early on.

Please refrain from exposing children to lot of junk food, believe me the habit that you create, when children are young, that habit will go a long way, long way, and you want to be the role model, you cannot expect that you eating lot of junk food, you eating samosas and jalebis.

And you are telling children that, no, no, you do not eat, it is okay if I eat, but you cannot eat no, that is, it does not go that way.

So, keep your junk food to just occasion maybe once a month or so, there has to be some special occasion. And believe me children will do the same. So, inculcate those good habits, inculcate about exercising. So, if you are exercising children will, even young child will look at you, you will be amazed how such good observation that they have, so think of that, and just inculcate all those habits by you being a role model for them.

Avoid exposure to screens, even for younger children, especially, because they do have a lot of attention deficit when they expose to kind of digital screen, too early on in life. So, in America, in fact, we are very, very strict about we have 0 tolerance to screen for first couple of years or so.

So, that is important. And I think, I think I have covered pretty much all the topics that I wanted to discuss. And I would like to thank a few people. First of all, I would like to thank NPTEL, both Ms Bharti, and Ms Bharti Sakpal and Ms Bharti Tari, and also my TAs, Bella and Tasneem, you have just been amazing.

Also, Tushar, who has coordinated my live recording and sessions and his team, and full IIT Madras team, who is coordinating the NPTEL course. And, and of course, all of you for joining this course. And, there might be differences of opinion, but we all are still learning and, I am open to learn from you guys.

So, if you have any experiences that you may have, after taking this course and in the practical life, do share it with me. And thank you so much. And hopefully, we will have next session, or next course in Hindi. So, if anybody would like to take this course in Hindi, you can ask them to join probably in July. Let me see if I can do it, but thank you so much.