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Supporting Infants With Visual Impairment With Feeding

Marsha Dunn Klein, OTR/L, MEd, FAOTA

continued

3 Learning Outcomes

By the end of this course participants will be able to:

- List reasons children with visual impairments may have challenges with feeding.
- Describe trust and responsive based strategies for feeding infants with visual impairments.
- Describe methods of introducing new foods and utensils for success with children who have visual impairments.



The framework

- Feeding is a relationship that depends on the abilities and characteristics of both the parent and the child." Ellyn Satter (Child of Mine, 2000)
- Vision challenges can interfere with feeding.
 Interferences with feeding can interfere with parentchild relationships.

(*Q1)

continued

What do sighted babies learn about feeding through their vision?





What do children learn through vision?

- They see the world around them.
- They learn about their family and the people in their world.
- They see colors and shapes and learn relationships of objects.
- They learn the communication of body language.
- Vision gives us a reason to move and reach out beyond themselves.

CONTINUED

Eyes are preview sense

- Through vision we learn who's who
- Who is familiar and who is not
- We learn at a glance what is safe and what is dangerous



What do we learn about feeding and eating through vision?

- We learn who is our feeder.
- We learn that foods look different.
- We learn about differences in food textures.
- We learn about the pace of the meal, how fast is that food coming, and from what direction.
- We learn how a cup, fork, straw, spoon, and plate are used.

(*Q2)

continued

What else?

- We learn that one food is being offered and then our feeder changes it, so we learn change is coming.
- Vision helps us <u>prepare for change!</u>
- Vision allows for previews of sensory change from a distance
- And mealtimes change a lot!

(*Q3)





Sighted Advantages

- Children who have sight have developmental advantages.
 Research has been limited.
- "Visual information serves as a stimulus for a child to move and as feedback through which the child learns to correct or improve his or her movement." Bakke, 2019
- "...Motor development in children with visual impairment is expected to be different from that in typically developing peers. All movements, especially those involving limbcoordination-dexterity and visual motor control may be modified by reduced visual stimuli." Bakke, 2019

(*Q4)



Selma Fraiberg warned us

- Pioneer in child development who also studied blindness in the 1970's
- "No possibility of comparing the blind and sighted child in an item by item inventory of prehension and no possibility of fairly scoring these items using sighted child criteria."
- Fraiberg, S (1977) Insights from the Blind:
 Comparative studies of blind and sighted infants.
 New York, New American Library.



In support

- They need adult support until they develop independence and confidence in environmental exploration.
- The amount of visual loss will influence the developmental differences. (Some sight helps!)
- More challenges in fine motor vs gross motor. (Brambring, 2006)

continued

Developmental challenges

- Texas School for the Blind and Deaf
- "The Development of Tactile Skills", by Ann Adkins, Debra Sewell, and Jeri Cleveland
- Visually impaired children ... "may be missing crucial information about their world... The visual impairment affects the entire process of information gathering."
- Tactile information is **not** the same as visual information gathering.



Tactile information

- Requires information gathered overtime with systematic exploration
- Cannot be gathered from a distance
- If the child cannot explore that object, his perception of that object may be wrong
- The Elephant Story
- We need to help VI babies get the BIG PICTURE

(*Q5)

continued

Development differences

- Wonder Baby published in 2017 "Developmental Charts of Blind and Visually Impaired Babies" by combining information from three sources:
 - Developmental Guidelines for Infants with Visual Impairment: A Manual for Early Interventions
 - Helping Children who are Blind
 - Children with Visual Impairments
- Were meant to be guidelines
- www.wonderbaby.org



Common developmental characteristics of children who are blind

- Prone
 - Tend towards delayed in head lifting
 - Snuggle into the floor
 - Delay moving up against gravity
 - We need to help them have a reason to head lift and to weight shift and feel things to reach

(*Q6)

continued

Common developmental characteristics of children who are blind

- Supine
 - Delayed in trying to move, roll, since vision inspires movement
 - Delays in finding feet, flexor development
 - Delays in reaching out from supine
 - We need to help them feel and learn to move out from their safe center towards rolling, towards toys
 - We need to help them learn to explore and find that sensory world around them.

(*Q6)



Common developmental characteristics of children who are blind

Sitting

- Tendency to be delayed in getting and out of sitting
- Tend to learn sitting when others sit them
- Once sitting, tend to STAY in sitting. Why would they move out of sitting? Delayed in weight shift from sitting
- We need to help them feel and hear a reason to shift weight in sitting so they can get confidence with their balance skills.
- We need to give them a reason to learn to get out of sitting and teach getting into sitting.

(*Q6)

continued

Common developmental characteristics of children who are blind

- Play
 - Often the child's favorite toy is their own body (it is what's close)
 - Hands to midline or near body rather than reaching out.
 - Solitary play, parallel play is common
 - We need to bring the sensory environment to them and help them reach out and play from that safe close to the body space.
 - We need to help them learn interactions with others.

(*Q6)



Common developmental characteristics of children who are blind

- Crawling
 - Tendency to avoid crawling altogether
 - Why crawl?
 - The hands of protection are busy and the head is leading!!

continued

Common developmental characteristics of children who are blind

- Walking
 - Delay in independent walking
 - Tends to walk holding their world
 - Think about walking. We have a place to go, a toy to reach for, and reason to move!
 - We need teach skills of walking, modified safety techniques, and help them build confidence.



Common developmental characteristics of children who are blind

Communication

- Sighted babies learn from watching others and from watching the expressions of their parents. They learn what is safe and what is not. What makes parents smile and what does not.
- Those things sighted babies learn from a distance, blind babies need to learn through touch with the help of smell and sound.

continued

Common developmental characteristics of children who are blind

- A World View
 - The world view tends to be a close space around them.
 - They need to learn to explore, but do it carefully
 - Without vision, there can be many unexpected dangers And many SENSORY SURPRISES





Continuum of visual challenges



continued

Common extreme feeding challenges

- Caution with change
- Difficulty transitioning from breast or bottle
- Difficulty transitioning to new foods or new textures
- Oral aversion
- Oral refusal
- Oral hypersensitivity
- Gagging
- Vomiting

(*Q7)



The child who has visual impairments is at a disadvantage. Why?



continued

Close YOUR eyes and imagine you are being fed

- You are a year old
- You are blind
- You are in the highchair
- You are being fed baby food blended pears

Imagine!



My experience

- These reactions may well be learned reactions to sensory surprises
- Just like with sighted children, blind children have different temperament
- Some are more adventuresome and others not so
- Some have had more sensory surprises to figure out.
- Babies bring their experiences to the table
- And so do parents...

continued

No sensory surprises





How can we help parents and babies avoid these feeding challenges?

- Build TRUST, TRUST, TRUST
- Feeding is a relationship based on trust.
- Parents can be predictable and help the baby use other senses to be prepared for what's next.
- We can help parents move slowly in their introduction of new eating experiences and offer at the baby's pace.

continued

How can we help babies trust?

- From infancy, intentionally offer feeding experiences with all the senses
 - Tell them what to expect
 - Show them what to expect
 - Help them learn to explore and search reach
 - NO sensory surprises
- Watch the baby's response carefully
- Adapt to their response without PUSHING INTO THEIR worry
- Believe them and trust their response



Division of Responsibility

- Infants
 - Parent's job is to offer the breast or bottle
 - Baby's job to eat until done
- Toddlers
 - Parent job to determine the what (menu), where, and when of meals
 - Toddler job to decide how much to eat of the food offered, and IF he wants to eat the food offered.
- The foundation for learning to be a confident and internally motivated eater.
- Based on the work of Ellyn Satter (www.ellynsatterinstitute.org)

continued

Offer vs Demand

- Offer-Present (something) for (someone) to accept or reject as desired (Google Dictionary)
- Demand- An insistent request made as if by right. (Syn. command, order, ultimatum, dictate)
- (The Get Permission Approach to Pediatric Mealtimes)



AEAM 2019-2020



Positive Tilt vs Negative tilt



We need to adapt the presentation to support the positive tilt.



continued

Breast Feeding

- Be predictable in the position.
- Quietly talk with the baby about the feeding so the baby learns this happy time is one for feeding.
- The position and the skin to skin helps the baby orient.
- Offer the nipple and let the baby indicate readiness with a leaning towards the breast and a mouth opening.
- Help them be successful.



Bottle feeding

- Cuddle the baby in a comfortable (predictable) position. The position will be a preview.
- Allow the baby to feel the bottle as a preview.
- Offer the nipple at the lips, but give the baby a moment to GIVE PERMISSION, to open indicating readiness. OFFER!
- Do NOT put the nipple in the mouth quickly or unexpectedly. The baby will let you know when ready.
- Let baby end the meal when done. Do not force baby to eat more than she wants.

continued

Mouthing is IMPORTANT

- Babies learn a great deal from mouthing fingers and toys.
- Helps the baby use fingers to learn
- Helps them get used to textures in the mouth
- And it is an exploration the baby can do on his own
- De-sensitizes mouth



From mouthing towards meals

- Mouthing is preparation. Parents can provide mouthing toys as well as help baby SEARCH REACH for those toys in beginning environment exploration
- Mouthing toys can be explored from a secure position on parent's lap or in a highchair
- From parent's lap, baby can smell parent food, feel parent eating, touch parent food and bring fingers to mouth in beginning exploration.

continued

Mouthing to tastes

 Helps babies understand sensory aspects of their world with hands and mouth. Can include flavors and tastes and the CHILD is in charge.





Food as a mouthing toy

- Use safe food
 - Examples, When the baby is just learning mouthing and not strong enough to bit off and choke on chunks, a large piece of carrot, or quarter of apple could become a mouthing toy. (Supervision, of course)
- Mouthing toys as well as safe solids can be on the highchair tray within reach.
- Baby Led Weaning is a nice resource

CONTINUED

Food introductions

- Child is an active participant
- Food on fingers then mouthing toys.
- Avoid sensory surprises







Parent finger offer





CONTINU ED

And wait for permission





TipToe!

- We have not talked about just sitting the baby in the highchair and feeding her with a spoon to start.
- Baby has not seen what to expect
- Baby does not know what to expect
- Baby has no frame of reference
- Ripe environment to create sensory surprises
- So....INCLUDE them in the feel, smell and in telling them about the mealtime, watching THEIR responses

continued

Start with familiar

- Once you know the food flavors the baby likes, offer small tastes of purees...on tray and fingers, mouthing toys and then from the spoon
- Spoon can rest in the bowl for baby exploration and prespoon practice.
- Stretch textures as baby shows readiness.
- Babies will let you know if they need really careful intros of new food flavors and textures or just careful.



Because the child may not be able to see the spoon coming...

- With any new introduction at mealtimes, be sure to give the child rehearsals (Klein, 2019)
- Rehearsals can be the routine or verbal, smell, sensory signal about the presentation of the food
- Can help the child feel the food and bring finger or spoon to mouth encouraging the enthusiastic child to feed self
- Offer the spoon of familiar food at the lips and WAIT for the child to GIVE PERMISSION by opening her mouth to take it in. Offer small amounts.

continued

Baby Led Weaning

- Child directed but child needs the framework
- Encourages baby to explore the foods and bring them to own mouth, with supervision and with caution and safety in mind.
- This requires the child to feel safe and excited about textures and be motivated.
- Can be done with children with visual impairments, but WILL DEPEND ON THE CHILD'S sensory confidence and motor skills.
- Baby Led Weaning. Completely Updated and Tenth Anniversary Edition: The Essential Guide-How to Introduce Solid Foods and Help Your Baby Grow Up a Happy and Confident Eater (Rapley and Murkett, 2019)



Hand under hand

- Gives sensory feedback about pace
- Helps child learn the motor plan
- Allows for baby to gradually take more control towards independence

(*Q9)

continued

Spoon experience

- Once the child is good with mouthing toys, a spoon becomes a mouthing toy.
- You can offer it in the bowl or plate and the child will get the experience of picking it up and tasting the food.
- Gradually the child will learn to dip into the puree.
- ...And eventually scoop



Spoon play

- Small spoons that fit baby hands from predictable plates
- Orient to the meal with touch is a rehearsal for more mature eating skills later
- Child can work toward learning to bring fingers and spoons to own mouth while adult co-feeds.





NumNum® Prespoon GOOtensils

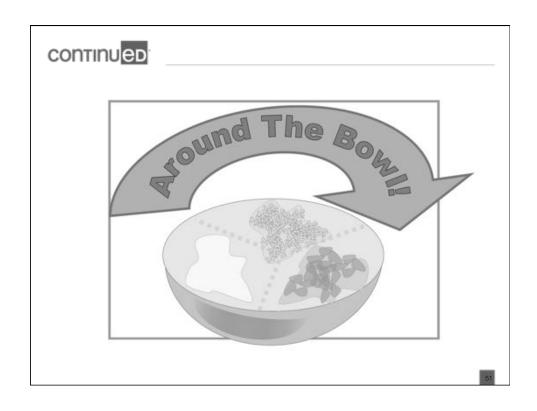
EZPZ Tiny Spoon

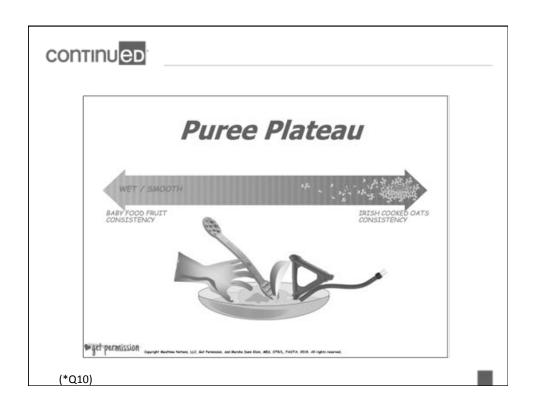
continued

Sensitive eaters

- Flavor: The flavor with no texture (Ex. peeled carrot, apple quarter, cucumber)
- Taste: Flavor with texture (Flavor with texture, as puree, scrambled egg)
- Recommend flavor first to note the baby's enthusiasm
- Anxious Eaters, Anxious Mealtimes: Practical and Compassionate Strategies for Mealtime Peace, by Marsha Dunn Klein









Plates that are not easily thrown

- Creates a food environment for exploration
- Consider using a bowl that does not MOVE
- EZPZ example happens to be my favorite, but you may know of others



continued

Combination of spoons and fingers

- From a predictable plate or mat
- With familiar foods and maybe new ones
- Safe textures
- Baby can explore at HER/HIS PACE
- Baby can eat until done
- Baby will demonstrate increased skill, confidence



Expect a mess

- But this is how babies learn
- Babies with visual challenges need all that sensory exploration and practice
- Prepare baby with plastic bibs
- Prepare floor with plastic tablecloth or mat
- Remember when the baby is being messy, she is exploring and learning!

CONTINUED

Picking up food

- Search reaching
- Bowls that do not move or on the tray
- Special feeders such as net feeders or (KIDSME) feeders
- Caution with the foods we offer so child can manage and not be scared by choking
- The more they can do themselves the better!





Cups

Open cups vs Spouts vs indented tops



continued

Cup drinking

- Gradually will learn fullness of the cup by weight and finger-tip check
- Straws with lids can help reduce spillage and increase success



Teach straw drinking

- Offer the food the child already knows from a spoon
- Try using the straw as a spoon
- Offer a filled straw at the lips and waiting for a sucking response
- Try a type of squeeze bottle

continued

Self Feeding Independence

- Feel the environment.
- Where is the bowl, cup, spoon?
- What is the food and where is it?
- Hold the edge of the bowl with one hand and scoop with the other
- Lap Lean



continued		
Lap Lean		
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		61

CONTINUED	
Hand over hand	
	62



If there is some vision...set up for success

- Provide bowl with contrast with background,
- And OR provide food a contrasting color with bowl
- Lighting better behind the child and toward the food rather than behind the feeder

continued

Crumbs

- Crumbs can be used to carefully change the puree textures (perhaps Around the Bowl)
- Perhaps on the puree
- Perhaps under the spoon
- Perhaps on the tray
- They are a small sensory and motor ask
- Size and skill challenges can be increased slowly as confidence increases.

See ContinuEd "Crumbs as a Tool in Pediatric Feeding Transitions" webinar



Prepare the environment

- Be sure the child is supported in posture
- Early on they can be on parent lap
- Gradually fully supported and as posture improves, sitting alone in highchair that allows them a space for exploration
- Watch for feet!

CONTINUED

Summary

- Careful
- Give them information from the beginning in lots of sensory channels
- Watch the child's responses
- Help her be successful
- Guide towards independence
- Start where the child is successful and tiptoe





References:

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- Klein, Marsha Dunn, (2019). Anxious Eaters, Anxious Mealtimes: Practical and Compassionate Strategies for Mealtime Peace. Archway Publishing, Bloomington, Indiana
- Rapley, G., and Mirklett, T. (2019) Baby Led Weaning, Completely Updated and Tenth Anniversary Edition: The Essential Guide-How to Introduce Solid Foods and Help Your Baby Grow Up a Happy and Confident Eater. The Experiment Publishing, New York, New York



Blind Associations and Support

- American Foundation for the Blind (AFB)
- Association for the Blind and Visually Impaired
- National Federation of the Blind
- American Council of the Blind
- Wonder Baby
- And many states have blind foundations and early interventions programs of support

continued

Questions?

- marshadunnklein@gmail.com
- Check out the Grasshopper Story
- www.getpermissionapproach.com
- Anxious Eaters, Anxious Mealtimes: Practical and Compassionate Strategies for Mealtime Peace, by Marsha Dunn Klein



Thanks!Thanks!Thanks

