

Grit & Grace and the Goal to Breastfeed

Elisa Doherty, OTR/L, IBCLC



Disclosures

- I have received payment from Dr. Brown's Medical as a presenter of this webinar
- I personally developed this slide deck strictly for educational purposes and audiences
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- The information shared is evidence-based and without bias.
- I will make no recommendations for any off-label use of pharmaceuticals, nutritional supplements, or devices

Learning Objectives

- After attending this webinar, the participant will be able to:
 1. List at least two criteria of infant feeding development that impact the long term success of breastfeeding and offer predictability of goal achievement.
 2. Differentiate from maternal descriptors two attributes that enhance the mother's ability to breastfeed.
 3. Identify three challenges that predict potential barriers to success of achieving the long term goal of breastfeeding for the NICU infant.
 4. Relate at least two interventions for specific deficits to improve infant's latch for effective milk transfer and reduced maternal pain during breastfeeding.

About Me

I received my Bachelor's degree from Saint Louis University

I have worked dominantly in infant feeding, including NICU and Outpatient Infant Feeding for the past 19 years. I am an IBCLC, with a specialization in occupational therapy as it relates to ALL areas of infant feeding
- both bottle and breast.

I am a mother of four, ages 16, 14, 11, and 7
My husband is a physical therapist so we compliment one another well;)

I am a parent advocate... because love and understanding for infants *and* for the parents is the very best way to care for babies!



My family



Why we do what we do!

All mothers have a desire to provide for their baby

Know the Goal...And the GRIT it will take to get there!

- Every mother dreams of a healthy baby... a NICU stay is NOT typically a part of the plan
- What course would that baby have taken had they been born term?
- Does that baby have medical and developmental limitations?
- How does that impact the infant's feeding?



Goals are constantly evolving....

Defining GRIT

- Why breastfeed? And how important is it to you?
- What drives the goal? Nutritional, Financial, Convenience, Bonding, Immune Health, or ALL of the above.
- What are the hierarchy of goals?
- And how does family-life balance fit into the feeding plan?
- Short term goals to build into Long term goals... we NEED little wins!



Duckworth, Angela, Grit: The Power of Passion and Perseverance. New York, NY: Scribner, 2016.

What role does the Mom want to play?

- If breastfeeding is the goal... Does she want to start now? Or does this mother prefer waiting until her infant has discharged from the NICU? And why?
- How do we, as the interdisciplinary feeding team, support each Mom and baby on their journey?
- BOTH infant and the mother are at the center of care.

Average Length of Stay for Infants in NICU

Gestation at Birth	Average length of stay (days)	Average age at discharge (gestational age in weeks)
Before and up to 27 weeks	93	39.5
28-31 weeks	44	36.4
32-36 weeks	13	36.6
More than 37 weeks	4	40.4
AVERAGE	8	38.6

Environmental Factors

- What does your NICU look and sound like when you walk in? How does that make you feel as a clinician? How do you think parents and infants feel?
- Negative or Positive experience?
- Do we offer privacy? Is there a time to be present WITH the mother to provide feedback on how to breastfeed infant?
- Breastfeeding might NEED support and your presence to build confidence.
- Build POSITIVE experiences



Building POSITIVE Experiences

- Skin to Skin
- Containment
- Calm, supportive environment for Infant AND Mother
- Breastmilk oral care
- Hand to mouth
- Mouth to breast
- Nurturing positive touch
- Nuzzling to Non-nutritive sucking to NUTRITIVE latch



What's the Occupation?

- The job of this infant is to thrive... to feed well, adequate volumes to gain weight and grow **WITHOUT** signs of stress.
- The role of the parent is to care, protect, nurture, understand, advocate.... and on and on and on....
- We support the thriving baby when we support the person charged as primary caregiver and nurturer of that baby.



Developmental Expectations of Oral Feeding

- Non-nutritive breastfeeding (nuzzling), 31-32 weeks+
- True breastfeeding, 32-33 weeks+
- Breast & feeding, 33-34 weeks+
- Feeding Plan as the desired long term goal....
 - Is this happening at time of NICU discharge or is there a need for continuation of care with outpatient feeding clinic?

GIVE GRACE

Having your baby in the NICU is seldom the plan...

- IDF scoring with parent inclusion
- Breastfeeding window
- Pumping near infant with supplies and comfort
- Discuss plan for home, bottles that have been already purchased
- We must afford adaptations to achieve the goal...with appreciation of the unique qualities of every PERSON, ENVIRONMENT, and the OCCUPATION



Feeding as a Dynamic Task

- Suck, Swallow, and... oh yeah...
BREATHE!
- Development maturation matters!
- Consider infant's pre-feeding skills...
 - Who woke who?
 - Is attention drawn towards feeding?
 - Is alertness and suck interest and active flexion sustained?



PREEMIE

versus

FULL-TERM

May have respiratory distress and other breathing complications



Lungs are fully developed at 40 weeks gestation

At week 35, a baby's brain still needs to grow 50%



Brain has more definition so the baby's brain is higher functioning

May not have enough body fat to regulate temperature until 34+ weeks



Has enough fat and energy to regulate body temperature and other vital functions

May have problems feeding because ability to suck/swallow is not fully developed until 34+ weeks



Ability to suck/swallow leads to healthy, rapid weight gain so the baby can grow

Intake Volumes


- Simplify for parents through education... know what volume their infant is at and where they are going.
- i.e. 5 lb baby needs ~50 mls, 6 lb baby needs ~60 mls, 7 lb baby needs ~70 mls, etc. (Approximation based upon 20cal/oz diet and feedings 8 x per day)
- Build intuition for Long Term Feeding Plan

Assessment:

Birthweight: _____ Plan: _____

Infant Feeding Diary Day # _____

Recommended volume for supplementation based upon infant weight to gain/grow: _____ mL, every 3 hours (if lacking milk transfer at breast) Recs based upon 8 feedings/day.
Aim for 8-10 nursing/pumping sessions each day.



Missouri Baptist
MEDICAL CENTER
BJC HealthCare

Today's Date: _____

Today's Weight: _____

	1	2	3	4	5	6	7	8	9	10	11	12	13
Start time of feeding													
How long did baby BF? (min) (lt/rt)													
Baby's mood	Fussy Sleepy Alert	Fussy Sleepy Alert	Fussy Sleepy Alert	Fussy Sleepy Alert	Fussy Sleepy Alert	Fussy Sleepy Alert	Fussy Sleepy Alert	Fussy Sleepy Alert	Fussy Sleepy Alert	Fussy Sleepy Alert	Fussy Sleepy Alert	Fussy Sleepy Alert	Fussy Sleepy Alert
Quality of suck during feed - breast?	Consistent Intermittent Nuzzling No Effort	Consistent Intermittent Nuzzling No Effort	Consistent Intermittent Nuzzling No Effort	Consistent Intermittent Nuzzling No Effort	Consistent Intermittent Nuzzling No Effort	Consistent Intermittent Nuzzling No Effort	Consistent Intermittent Nuzzling No Effort	Consistent Intermittent Nuzzling No Effort	Consistent Intermittent Nuzzling No Effort	Consistent Intermittent Nuzzling No Effort	Consistent Intermittent Nuzzling No Effort	Consistent Intermittent Nuzzling No Effort	Consistent Intermittent Nuzzling No Effort
Supplement (mL) mom's milk													
Supplement (mL) formula													
Quality of suck during feed - bottle?	Strong Fair Poor	Strong Fair Poor	Strong Fair Poor	Strong Fair Poor	Strong Fair Poor	Strong Fair Poor	Strong Fair Poor	Strong Fair Poor	Strong Fair Poor	Strong Fair Poor	Strong Fair Poor	Strong Fair Poor	Strong Fair Poor
End time of feeding													
Total # minutes (breast and bottle) GOAL: less than 30 minutes													
Pumping?													
How long? GOAL: 10-20 minutes													
Amount (mL)													

Total number of feeds: _____

Total pumped milk: _____

Total wet diapers: _____

Total dirty diapers: _____

Method of supplementation: syringe, nipple, bottle, other: _____

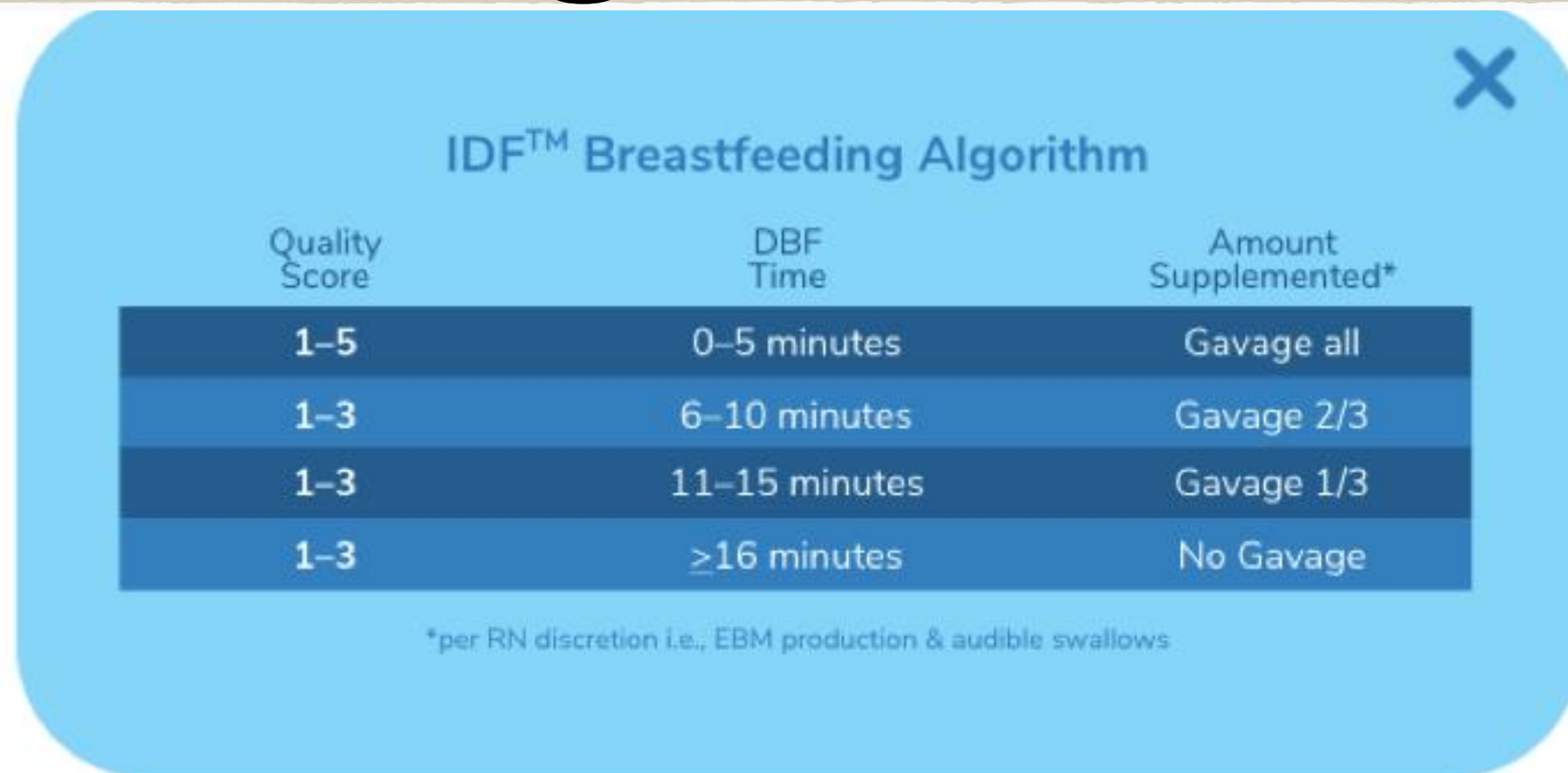
Advancing Feedings Based on Baby's Weight

Calculation for breast milk or standard 20 cal/oz formula:
 $120 \times \text{Baby Weight (kg)} \div \text{\# feedings per day} \div 0.67$
 = ml per feeding.
 Calculations based upon 8 feedings per day.



Baby's Weight	Breastmilk/ 20 cal/oz	22 cal/oz
3 lbs. (1.4 kg)	32 ml	29 ml
3 lbs. 8 oz.	36 ml	33 ml
4 lbs. (1.8 kg)	41 ml	37 ml
4 lbs. 8 oz.	45 ml	41 ml
5 lbs. (2.3 kg)	52 ml	47 ml
5 lbs. 8 oz.	56 ml	51 ml
6 lbs. (2.7 kg)	61 ml	55 ml
6 lbs. 8 oz.	68 ml	61 ml
7 lbs. (3.2 kg)	72 ml	65 ml
7 lbs. 8 oz.	77 ml	70 ml
8 lbs. (3.6 kg)	81 ml	74 ml
8 lbs. 8 oz.	88 ml	80 ml
9 lbs. (4.1 kg)	92 ml	84 ml
9 lbs. 8 oz.	97 ml	88 ml
10 lbs. (4.5 kg)	101 ml	92 ml
10 lbs. 8 oz.	108 ml	98ml
11 lbs. (5 kg)	113 ml	102 ml
11 lbs. 8 oz.	117 ml	106 ml
12 lbs. (5.5 kg)	124 ml	113 ml

Breastfeeding Algorithm



The image shows a screenshot of a mobile application interface titled "IDF™ Breastfeeding Algorithm". It features a table with three columns: "Quality Score", "DBF Time", and "Amount Supplemented*". The table has four rows of data. A blue 'X' icon is located in the top right corner of the application window.

Quality Score	DBF Time	Amount Supplemented*
1-5	0-5 minutes	Gavage all
1-3	6-10 minutes	Gavage 2/3
1-3	11-15 minutes	Gavage 1/3
1-3	≥16 minutes	No Gavage

*per RN discretion i.e., EBM production & audible swallows

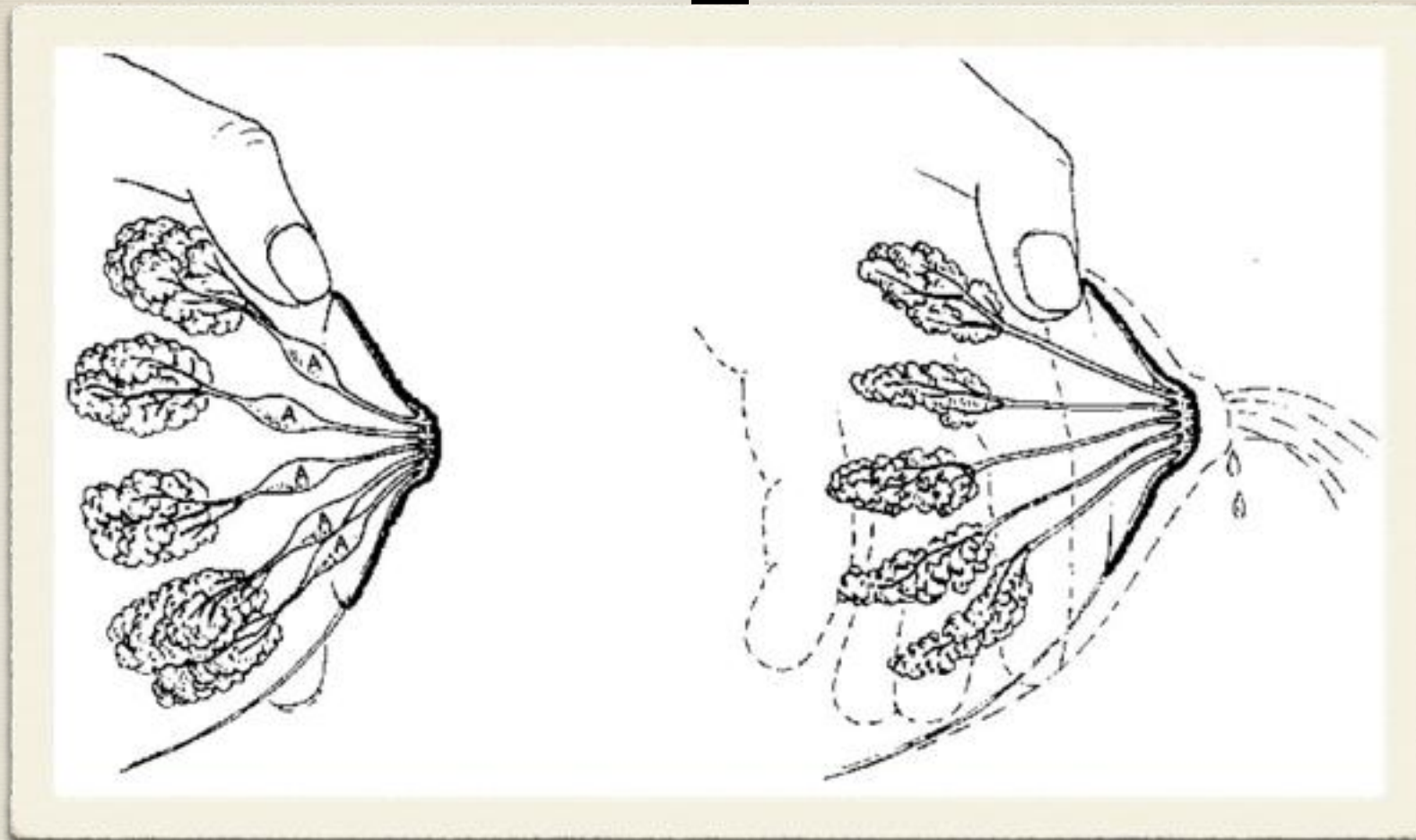
- EBM production often must AT LEAST meet infant's intake needs, ideally EXCEED, for this algorithm to work effectively.
- Know the infant's intake need, as it relates to Mom's yield (right vs left matters if it's different), and her milk ejection reflex (MER)

Benefits of Breastmilk

- Human milk for human babies
- Gold standard for growth, health, & development
- Promotes the Mother-Infant bonding and attachment
- Moms often already have the desire - Pay attention to her stated goal! And SUPPORT!



Milk Expression



- Optimize Milk Supply
 - Pump every 2-3 hrs, goal of 8-10 x per day
 - Pump x 15-20 minutes to encourage “emptying” of breasts
 - Use your hands to massage and encourage milk flow
- Goal milk volume is 24-30 oz PER DAY, PER BABY (on average)
- Follow your pump’s instructions, suggestions to optimize flow and adjust flange fit

Latch Strategies

BENEFITS OF A PROPER LATCH

- Improved feeding efficiency for infant
- Reduced pain for Mom



HOW TO ACHIEVE A PROPER LATCH

- **1. Start infant Nose to Nipple**

- This will help to ensure that when infant opens mouth to latch that the nipple will be towards the roof of infant's mouth
- The goal of this starting position is to achieve an asymmetrical latch.
- The infant will have more of the areola covered near the chin in comparison to the amount of areola visible near infant's nose
- This allows tongue to achieve grooving under the nipple and triggers infant's suck reflex due to sensation on the palate (roof of mouth)

- **2. Wait for infant to demonstrate a wide mouth opening**

- This may require a little patience. Infant will root when they are hungry and ready to eat.
- Do not allow infant to latch with narrow mouth opening as this will cause maternal pain and smaller amount of breast tissue in the infant's mouth

- **3. Once a wide opening is seen, mom should quickly bring infant to the breast, facilitating a deep latch.**

- Infant's chin should be touching the breast tissue

- **4. Once latched, infant's jaw angle should be >100 degrees (goal of 140 degrees)**

- Mom should continue to offer firm postural support with her outer arm/hand to assist in infant maintaining a deep/wide latch

****As infant completes a proper latch more consistently, it will become routine and should require less and less effort from the caregiver



Special Challenges to Latch

- Problem solving the “fit” of baby’s mouth to mom’s nipple
 - Hand support on baby and on breast to guide “puzzle pieces” to fit together.
 - One hand with baby, palm to shoulders. One hand in “C” shape supporting wedge shape of breast - thumb parallel to infant’s upper lip line.
- Is infant’s oral movements (lip/tongue) causing pain to Mom? Is it functional? Is there a need of revision?
- Can a nipple shield help provide improved sensorimotor function?

Postural Support of Baby and Breast

Feeding difficulty

Breastfeeding positions: Cross-cradle and football hold, Support head & neck



Guiding infant to breast with a supportive hold.

CROSS-CRADLE HOLD



FOOTBALL HOLD



Special Challenges to Milk Supply

- Did Mom have a “traumatic” birth?
- History of low milk supply, GDM, HTN, Blood transfusion, etc?
- Is this her first baby?
- What’s her time management strategy for family/life balance?
- Is there support at home?
- Is Mom’s doctor still supportive in HER goal to breastfeed and manage her breast health?

Building Habits

- Understanding developmental norms of the term infant can help Moms of NICU Infants have appropriate expectations of feeding and pumping frequency needs.
- Where am I at? Where am I going?
- Willpower improves as we EMPOWER Mothers



Closing Thoughts for Grit & Grace

- Checklist to Successful Breastfeeding
 1. Know the Goal - HEALTHY, Thriving, Fed Baby AND a HEALTHY, Balanced Mom
 - Intake goal of infant
 - Output volume of Mom's milk expression
 - Timeline with trajectory of intake for infant growth, rate of milk transfer based upon development
 - Return to birthweight by 2 weeks of life, continue to gain around 1 oz per day, or 5-7 oz per week
 - PO Readiness - who woke who? How does this impact breastfeeding?
 - Infant-Driven Feeding™ with stress free and optimized feedings.

Closing Thoughts for Grit & Grace

- Checklist to Successful Breastfeeding Cont'd.

2. Support the Goal

- Infant development - positive reinforcement of learning, stress free feedings
- Mom's practice - how is she supported in the NICU and at home? Who is checking in?
Small wins with Short term goals to build to the Long term goals. Break it down!

3. Complete the Goal

- Follow-up Feeding Clinic. Weighted feeds, as needed. Progression of flow rate
- Empowering Mom, Enhancing Intuition, Encouraging safe feedings for infant, Allowing for modifications with the balance of home life.

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