Milk Supply, Growth, & Infant Intake:

Basic Assessments and Interventions for Common Issues

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ABSTRACT

Improving breastfeeding rates is a key goal of improving maternal-child health, nationally and internationally. "Insufficient milk supply" has for decades been one of the most commonly cited reasons for supplementation or cessation of breastfeeding. To support mothers in meeting their breastfeeding goals, health care providers must be able to recognize the causative factors for insufficient milk supply and know which are reliable and which are not. Advice about normal infant growth patterns may help alleviate some mothers' concerns; others will need help on improving their milk production and transfer, hence intake (and weight gain) improve. Even those nursing schools which include breastfeeding as part of their curriculum usually cover only the basics, leaving their graduates lacking information about evidence-based practices that support breastfeeding mothers, including those that address inadequate milk supply. Professional education programs can help to fill this gap. The goal of this program is to help nurses **choose strategies that improve milk production and infant weight gain in a variety of circumstances, from assessment through intervention**.

BFHI Related Step(s)
Step 5

Objectives
- Recognize common reasons why mothers have an insufficient milk supply (IMS), and how their perception of IMS can affect their feeding experience.
- Distinguish reliable from unreliable indicators of insufficient milk supply
- Describe normal weight gain patterns, when and how to accurately gather and translate data to parents; when and how to take actions that will achieve optimal weight gain patterns.
- Given a scenario where inadequate milk supply, transfer or infant weight loss has or might occur, identify and prioritize initial and follow-up assessments and interventions while integrating previously learned communication techniques/approaches.

Instructions
See the *ReadMeFirst* document in your account.

Materials and Resources
Audiocast

Vocabulary
- Retained placenta
- Sheehan's Syndrome

Criteria for Earning Credits
See the *ReadMeFirst* document in your account.

Accreditation
See the *ReadMeFirst* document in your account.

Faculty
Marie Biancuzzo RN MS IBCLC has achieved national recognition for her expertise in maternal-child nursing, breastfeeding, and continuing education. Her profile is on LinkedIn.

Topical Outline

Questions for the Author/Presenter:

Write your questions here!

1.

2.

3.

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5.

Email us at info@breastfeedingoutlook.com if you have questions. Telephone is not as efficient, but you are welcome to call us at 703-787-9894.

I. Is Not Having Enough Milk a Big Deal?

A. Likely Consequence

1. For the last several decades, "not having enough milk" is the #1 concern expressed by mothers.
2. First approach is to use communication skills learned in Session 2 in order to listen and learn. See what the mother is thinking or saying or observing.
3. Equally important approach: Build the mother's confidence.

B. Common Reasons/Perceptions of "not enough milk." (WHO): UNRELIABLE

1. Infant behavior
    a. Frequent crying
    b. Unsettled at the breast
    c. Sucks on fingers/fists
2. Infant size or infant weight loss
    a. Physical size: large or small
    b. Baby has lost weight or is gaining slowly
3. Breasts and milk
    a. "Looks thin"
    b. Gets little or no milk when pumping/expressing
    c. breasts are not overful and leaking
    d. (softer than before, i.e., engorgement has subsided)
    e. No signs of a let-down reflex
    f. Baby eagerly takes a supplement

C. Actual Causative Factors

1. **Most common reasons** for low milk production and low milk transfer, although different, are related. See Figure below.
2. **Uncommon** reasons for low milk supply include: medications (e.g., estrogen-based contraceptives or diuretic therapy), alcohol or smoking, breast surgery, mother is pregnant.
3. **Rare reasons** for low milk supply include: Retained placenta, inadequate breast development, severe malnutrition over a long period of time, or a very restricted fluid intake. Severe and unusual pathology, e.g., Sheehan's Syndrome.

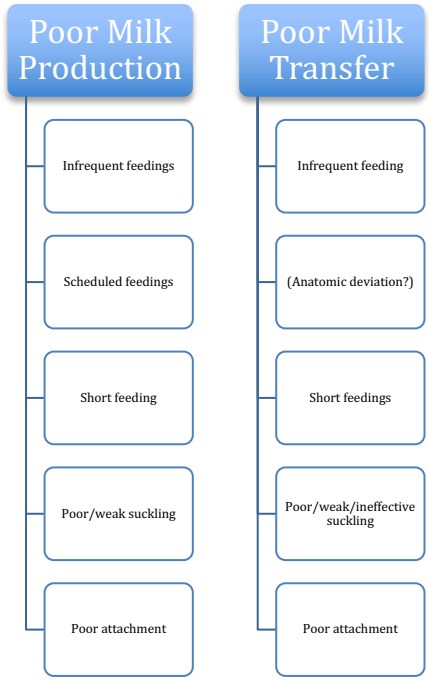

Figure 1. MOST common causes of low milk production and poor milk transfer.

D. What Do You Think?

- Comment: Hearing the baby swallow is very important. If you can't hear the baby swallowing, you can almost certainly bet that the baby is not getting enough milk! HOWEVER: Hearing the baby swallow is not a completely reliable sign that he is getting enough milk. Meaning, lack of swallowing is worrisome; presence of swallowing is usually but not always reassuring.

- Do you think that sometimes mothers really do have a low milk supply, and other times, they merely think they have an insufficient milk supply?

- Do you think it's possible that some reports or observation might indicate low milk supply, but might not?

E. How Can You Tell if Intake is Sufficient?

Reliable

- After day 2, > 4- 6 wet diapers per day; pale and dilute urine
- At least 3 BMs per 24 hours in first month
- Alert, good muscle tone, growing out of her clothes

Unreliable

- Behaviors: Crying often, altered sleep, etc.
- Baby takes formula eagerly
- Mother cannot express much if any milk
- Baby's size, large or small
- Mother's breasts do not become overfull or leak
- Other subjective signs

II. Normal Growth Patterns

A. Weight Gain/Loss Parameters

1. First few days
   a. Some babies actually gain weight!
   b. Many babies in the US lose weight the first few days.
2. After hospital period
   a. Baby should regain birth weight by 2 weeks
   b. Double birth weight by 6 months
   c. Triple birth weight by 1 year

B. Weight Charts

1. The “new” WHO growth charts should be used
2. Meaning of percentiles
   a. There is no one right or wrong “line” to be on
   b. Infants often move from one curve (line) to another; may not be on “their” curve until around 18 months.
3. When to worry?
   a. Don’t wait until baby has severe weight loss.
   b. Prevention and early intervention is key.

III. Improving Milk Transfer (Intake) and Milk Production

A. Integrate previously-learned communication techniques

1. It will be important to "listen and learn" in order to get to the root of the problem
2. Help build mother's confidence

B. Improving Milk Transfer/Intake

1. Assessments
    a. Integrate previously-learned communication techniques in order to "listen and learn" enough to address the root of the problem.
    b. Observation of mother/baby well-being in general
    c. Observation of feeding
2. Interventions
    a. Encouraging practices known to improve milk transfer
    b. Discouraging practices known to limit milk transfer

C. Improving Milk Production/Supply

1. Assessments
    a. Integrate previously-learned communication techniques in order to "listen and learn" enough to address the root of the problem.
    b. Observation of mother/baby well-being in general
    c. Observation of feeding
2. Interventions
    a. Encouraging practices known to improve milk production
    b. Discouraging practices known to limit milk production
3. Monitoring and follow-up
    a. Frequency: Depends on severity of the situation
    b. Specific actions
        (1) Weighing, while necessary, is not sufficient. Follow-up and monitoring meaning looking for signs and symptoms of problem resolution.
        (2) Talk with the mother to see if suggested changes are effective
        (3) If supplementation was used and problem is resolving, re-think that; reduce or eliminate supplements and monitor for a few weeks thereafter.

Matching
Instructions: Recall your earlier session on how milk is made, and how milk is transferred to the baby. Match the observation in column A with the MOST helpful intervention in column B.

Assessment	Intervention
1. After nursing, baby takes an ounce of formula	A. Assist infant to open wide and grasp the areola.
2. Baby is latched on the end of the nipple	B. Help mother to identify ways to get rest, e.g., decline visitors in favor of a nap.
3. Because mother is sleepy, she offers the breast to the baby every 5 hours	C. Suggest avoiding or reducing supplement use.
4. By the end of the first week, mother is producing 300 ml/day; baby has weak suck	D. Suggest expressing milk between feedings and offering it to baby by cup or supplementer
5. Mother is trying to keep up with needs of newborn and needs of her older children; supply is low	E. Talk with her and her family to identify ways for mother to be less overwhelmed
6. Mother offers one breast for 3 minutes then switches to other breast	F. Teach mother signs of satiety.
7. Pacifier is frequently in the baby's mouth.	G. Teach parents multiple ways to comfort baby.

Exercise 1. Matching assessments with interventions.

Answers: These are the intended answers, but in some cases, more than one intervention may be appropriate for the observation.
1.C; 2.A; 3.B; 4.D; 5.E; 6.F; 7.G

IV. Case Study

Goal
To integrate good communication skills with assessment, planning, implementation and evaluation of an exclusively breastfed baby who has lost 13% of her weight.

Participants
Three participants should role-play, preferably in front of a bigger group of learners. The role-play should focus on what needs to be done now, and what needs to be done for follow-up.

Characters

- Julianna's mother
- Julianna's grandmother (mother's mother)
- Nurse at the doctor's office

Procedure: Set aside about 20 minutes for this exercise. One person should be the mother, one person should be the grandmother, and one person should be the nurse. If time allows, switch roles so that each person gets to play each character. The larger group should observe for the effectiveness of the interaction. Read the situation below, and then proceed as directed.

Julianna was born at 39 weeks; she is full-term, average-for-gestational age with no known health problems. She was born by vaginal delivery. At her 2-week visit, Julianna's mother and grandmother take her to the doctor's office for a routine check-up. This is the mother's first baby, and she is completely committed to exclusive breastfeeding. The mother describes Julianna as a "good baby" and the grandmother says Julianna sleeps "all the time." Julianna has passed 2 stools this week. When the nurse weighs Julianna, it appears that she has lost 13% of her birth weight.

Using "listen and learn" communication skills you learned in Session 2, the nurse finds out that:

- The mother and baby were discharged on the second postpartum day, after a spontaneous vaginal delivery.
- The mother is unable to articulate much, if anything, she learned about breastfeeding in the hospital.
- The mother feels that Julianna does like her milk
- The grandmother gave the baby formula twice when the mother was not at home, and did not tell the mother.

Assignment for the Nurse
From what you've learned through good listening,

- Identify what the family is doing well

- Name at least three things the family needs to know now.

- List and describe further or ongoing actions that the family can do to help the baby gain weight.

- Determine when follow-up is needed, and when you would schedule the next appointment.

Assignment for the "Mother"
Desribe yourself and your baby in the way it was described in the paragraph on the previous page.

Assignment for the Grandmother
Chime in as needed

Assignment for the Group
Observe and be ready to give feedback to the nurse about how she did with carrying out principles of good communication.

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