Biological Nurturing

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- Concept of biological nurturing was developed by Dr. Suzanne Colson
- She has over 35 years of clinical experience helping breastfeeding mothers
- Research for her master of science and doctoral degrees explored the instinctual behaviors related to breastfeeding for both mothers and babies

What is biological nurturing?

A newly developed neuro-behavioral approach to the initiation and sustaining of breastfeeding

Encompasses two main components:

- **Position** – use of "laid-back breastfeeding" postures
- **Innate Behavior** – instinctual feeding reflexes that are released in the close mother/baby environment which aid latch and sustain milk transfer

Why is a new approach needed?

- In England, as in the United States, most women (7 out of 10) plan to breastfeed, yet many stop before intended because they encounter problems
- 17% stop within the first week
- Research (2005) indicates women stop due to:
  - Latch/suck problems (35%)
  - Sore nipples, perceived milk insufficiency (25%)
  - Belief that bf too tiring, complicated (10%)
- As a result, many women start motherhood feeling disappointed, guilty, or like failures

Oregon Data

- 9 out of 10 women initiate breastfeeding
- 6 out of 10 women are bf (any) at 6 months
- Less than 4 out 10 women are bf (any) at 12 months
- Within the first week of birth, 33% of mothers have introduced formula; 43% within the first month
- Reasons for stopping exclusive bf include:
  - Not enough milk
  - My baby was hungry
  - Baby refused the breast; didn't like my milk

Benefits of Biological Nurturing

Appears to help:

- Establish breastfeeding
- Reduce breastfeeding problems
- Increase enjoyment of breastfeeding
- Sustain breastfeeding

Traditional BF Positions

- Mothers are upright
- Reliance upon a pillow
- Babies lie across the mother's body
- Babies arms and legs may be unsupported
- Mother applies pressure to baby's back for support

"Laid-Back Breastfeeding"

Mother

- Is in a comfortable semi-reclined position
- Body well supported, especially head, neck, and shoulders

Baby

- Lies on top of the mother with head near the breast
- Body is not flat but tilted upward
- Legs and feet are supported

Video Clip #1

(8 min 19 sec)

Mechanisms of Laid-Back BF

- Increases the dimensions of the maternal body space available to the baby
- Increases the number of baby positions available (360 BF positions)
- Uses gravity positively
- Mother's body is supported (freedom of movement)
- Mother is focused on the baby
- Positional interactions work even when baby is asleep

Video Clip #2

(1 min 53 sec)

Innate Behaviors

- Definition: Natural reflexes, impulses, and/or responses that are not learned … often termed inborn, instinctual, inherent, spontaneous, or hardwired
- Dr. Colson believes that both mothers and babies have breastfeeding instincts
- In the baby, she calls these inborn responses "primitive neonatal reflexes" (PNRs)
- In the mother, they are labeled as "instinctual mothering behaviors"

Primitive Neonatal Reflexes

- There are many types of reflexes, e.g. knee jerk
- These reflexes are observed in the newborn in order to
  - Evaluate infant's nervous function
  - Predict gestational age
  - Assess physical health
- Previously **3** reflexes were thought to be involved in feeding: rooting, sucking, swallowing
- It now appears that there are around **20** feeding reflexes (see chart)

20 Feeding Reflexes

Endogenous (also called Cues)
Hand to mouth
Mouth gape
Tongue dart/lick
Lip smacking
Arm cycle / Leg cycle
Finger flexion/extension (hand massage)

Anti-Gravity
Head righting
Head lifting
Rooting (side to side)
Head bobbing (woodpecker)

Rhythmic
Suck
Masseter (jaw jerk)
Swallow

Motor
Palmar grasp
Plantar grasp
Stepping
Crawling
Placing
Babinski
Hand/foot flex

Feeding Reflexes

These reflexes may play a dual role in the mother/baby feeding relationship

- May be a **barrier** to feeding
  - Cue misinterpreted by mother, e.g. rooting interpreted as baby shaking head no, baby not wanting to breastfeed
- Can be a **stimulant** to feeding
  - Key finding of research - reflexes more apt to stimulate feeding when the mother is in a laid-back position

Video Clip #3

(6 min 31 sec)

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Video Clip #4

(5 min 9 sec)

Instinctual Mothering Behaviors

- Nesting
- Transportation, picking up
- Body placing
- Olfactory (Smell)
- Greeting
- Grooming
- Gaze and Imitate

Maternal Effects

Biological nurturing appears to

- Increase enjoyment of breastfeeding
- Sustain breastfeeding

How?

- Releases higher concentrations of hormones (hormonal rush)
- Research has shown that a high maternal oxytocin level on day 2 is associated with increased bf duration

Maternal Hormones

Oxytocin

- Has an anti-stress effect
- Highest concentrations immediately following birth
- Released in pulses and it peaks

Prolactin

- Directs maternal love toward the baby
- Peaks about 30-45 minutes into a breastfeed

What reduces Oxytocin Levels?

- Cold temperatures
- Close observation
- Teaching
- Fear and anxiety
- Pain
- Conversation, questions
- Bright lights

Goal of Biological Nurturing for Mothers

Promote a hormone-enhancing environment conducive to breastfeeding

Video Clip #5

(1 min 14 sec)

Challenging Situations

- There are situations in which biological nurturing does not work as easily as shown in previous clips
- Most common reason for a baby being unable to latch is because the baby is crying
- Observation of the infant's behavioral state is key

Neonatal Behavioral States

- Deep sleep
- Light sleep
- Drowsy
- Quiet alert (active)
- Active alert (fussy, irritable)
- Crying

Feeding Baby in a Sleep State

- Traditionally we have been told that a sleeping baby will not feed and a hungry baby will not sleep
- Research data suggests that some infants with breastfeeding problems may learn to feed better when in a drowsy or light sleep state
- The more awake the baby, the stronger the reflexes (which can interfere)

Video Clip #6

(6 min 16 sec)

BF Problems That May be Helped by Feeding in a Sleep State

- Latch problems or refusal
- Strong let-down
- Baby fighting the breast
- Sore or flat nipples
- Breast fullness or engorgement
- Long feed intervals
- Disorganized suck-swallow-breathe
- Colic
- Choking
- Any non-medical problem that causes moms to worry

Recommendations for Feeding in the Hospital

- Skin to skin contact right after birth for 1+ hours
- Biological nurturing upon transfer to room for at least 3 days
- Don't wake sleeping baby; instead, hold baby in biological nurturing postures to stimulate feeding reflexes
- Do not wrap up baby and leave alone in crib for 8-12 hours
- Question the value of breast milk expression for a healthy term baby

Video Clip #7

(4 min 4 sec)

Key Points

- Mothers and babies are versatile feeders.
- There is no right or wrong breastfeeding position. The right position is the one that works.
- The breastfeeding position the baby uses often mimics the position the baby was in the womb.
- Babies do not always feed for hunger; "non-nutritive sucking" is hugely beneficial to increase milk supply.

Key Points, continued

- Babies often self attach; mothers can help them do this.
- A baby does not need to be awake to latch on and feed.
- Mothers and babies both have instinctual breastfeeding behaviors. Encourage mothers to trust their instincts.
- Mothers and babies play an equally important role in the breastfeeding relationship.

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