1. **ADVANCED BABY BEHAVIOR: UNDERSTANDING EARLY CHALLENGES**
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2. **Goals for Today**
   - Provide *information* about expected behavioral differences among newborns and infants
   - Share *resources* for those working with families facing “mild to moderate” challenges

3. **Baby Science**
   - Berry Brazelton, Kevin Nugent (Touchpoints, NBAS, NBO)
   - Kathryn Barnard (NCAST and First Relationships)
   - Heidelise Als (NIDCAP)
   - Barry Lester, Ed Tronik (NNNS)
   - Many others...

4. **Overview: Advanced Topics**
   - Introduction: Baby Behavior and Infant Feeding
   - Newborn Variation
   - Infant Temperament
   - Premature Infants

5. **Baby Behavior Promotes Breastfeeding**
   - Baby Behavior is just another tool for BF promotion
   - Addresses perceived insufficient milk and maternal confidence
     - 35-40% of women cite insufficient milk as a reason for BF cessation

6. **Baby Behavior: Focused on Healthy Families**
   - Simplified normal newborn behavior
   - Baby Behavior reduces barriers to BF but does not address clinical issues

7. **What is the Role of the Lactation Specialist?**
   - Discriminate between clinical and behavioral causes of poor outcomes
   - Address clinical issues
   - Provide advanced support and instruction for families with challenges or special needs

8. **Let’s Not Stray Too Far**
   - Advanced information should be used sparingly
   - Complexity is the enemy of communication in today’s world
   - Cues, Crying, Sleep should stay the focus

9. **Coping with Stress**
   - If people believe there is a solution -
     - Problem Management
       - Seek information
       - Identify solutions
       - Attempt and evaluate solutions
• If people don’t believe there is a solution – Emotional Regulation
  ● Reinterpret goals
  ● Disengage, detach
  ● Denial of consequences
  ● Anger, aggression

10 Variation in Newborn Cues and Feeding
  ● Newborn cues often mixed
  ● Many have limited motor control
  ● Cues are initially “trial and error”
  ● Infants born with wide variation in motor control and feeding ability
  ● About ½ of infants do not latch well 0-24 hr
    ● Most will have rapid improvement
  ● About 27% in WHO study needed ongoing support
  ● Some reflexes (strong in early pp) may interfere

11 Variation in State Regulation and Crying
  ● Some may bounce from state to state or mix behaviors
  ● No clear transitions or patterns of behavior
  ● Varied ability to self-soothe or respond to caregiver attempts to soothe
  ● Sensitivity to stimulation
    ● May vary by degree and sensory system
  ● Variation in ability to habituate to stimulation (internal or external)

12 Persistent Crying: Definition
  ● Persistent crying is sometimes called “colic” but term is used inconsistently
  ● Affects about 20% of the 0 to 3-month population
  ● “Persistent crying” refers to daily inconsolable crying
  ● Persistent criers continue to cry despite caregiver efforts
  ● Only 25-30% of persistent criers have problems with digestion - obvious signs
  ● Medical concerns should be ruled out

13 Persistent Crying: Reasons
  ● Infant is sensitive to stimulation
    ● Low threshold or heightened response
  ● Infant can’t regulate states
  ● Infant can’t provide readable cues
  ● Infant illness, injury, or GI problems
    ● Crying with signs of illness or a big change in behavior should be investigated by the doctor
  ● Parents may need referral for professional help

14 Variation in Sleep Patterns
  ● The sleepy baby
    ● Medication exposure, prolonged or stressful labor, preterm birth
Hyper-alert or fussy drowsy baby
• Poor state control, medication exposure, maternal medication or caffeine exposure
• Inability to maintain sleep states
  • Immature system can't habituate to external stimulation
  • Immature system with prolonged light sleep

**Temperament Defined**
• “Constitutionally based individual differences in emotional, motor, and attentional reactivity and self-regulation.”

**Assessment of Temperament**
• Activity level
• Rhythmicity
• Approach-withdrawal
• Adaptability
• Intensity of reaction
• Threshold of responsiveness
• Quality of mood
• Distractibility
• Attention span

**Classifications**
• Not classified (35%)
• Easy (40%)
  • Responds well to stimuli, adapts to routines, social, happy, easy to distract
• Difficult (10%)
  • Irregular, intense, disturbed by sensory input, unhappy, hard to distract
• Slow to warm up (15%)
  • Unwilling to approach or adapt to new experience but do adjust with time

**NCAST/Brazelton Assessment Areas**
• Consoling by caregivers
• Cuddliness
• Smiling
• Motor behavior
• Irritability
• Readability
• Alertness
• Visual response
• Auditory response
• Habituation
• Consolability
• Self-consoling

**Temperament and Behavior**
• Temperament influences states, cues, sleep patterns, and caretaking
• Brazelton and Barnard support sharing observations of infant temperament with new
parents
  • Included in the *Newborn Behavioral Observation*

20 **The Preterm Infant**
  • Broad classification of infants with varying medical/physical issues depending on:
    • Gestational age
    • Developmental progress
    • Size
    • Health status

21 **The Preterm Infant**
  • 37 weeks or earlier
  • “Very preterm” is typically ≤ 28 weeks gestation
    • Survival rates have grown exponentially
  • Deficits in state regulation, organ function, and motor skills increase with degree of prematurity

22 **The Preterm Infant**
  • Preterm infants enter the extra-uterine environment before vital functions are developed
    • Intrauterine environment promotes development and regulation of function and response
    • Parental development also impaired
  • Many preterm infants have long-term deficits in learning, attention, behavioral control, communication, self-esteem, and motor skills

23 **Common Early Issues**
  • Physiological instability
  • Limited motor function
  • Impaired reflexes
  • Sensory sensitivities
  • Limited GI function

24 **Preterm Behavior**
Procedures and equipment needed to save lives may be in conflict with infants’ needs for appropriate physical/regulatory/emotional development

25 **Behavioral Interventions**
  • Skin-to-skin care (kangaroo)
  • Milk expression
  • Shared-observation based education for parents and caregivers
    • Individualized approach
  • Increasing parents’ responsibility for care

26 **Late Preterm Challenges**
  • 34-37 weeks gestation
  • Sometimes “elective”
  • Challenged by *looking* too similar to term
  • Limited reflexes, immune function, state regulation, motor skills, and stamina
Late Preterm Challenges

- ¾ of all preterm births - up 25% from 1990 to 2005; 2/3 of medical costs associated with prematurity
- Interrelated factors - multiple births, obesity, older mothers, consumer demand, litigation, advancements in fetal monitoring
- 4 times more likely than term infants to have jaundice, respiratory distress, poor feeding, temperature instability, hypoglycemia, and readmission within 2 weeks
- Mortality rate is 4.6 times that of term infants

The Breastfeeding Conundrum

- “Breastfeeding at discharge” is strongly associated with rehospitalization in the late preterm infant
  - This is a classification, not a well-defined behavior
- Predictable behavior issues include:
  - Ineffective or poor suck (fewer sucks per feeding episode, lower pressures than term infants)
  - Low stamina (shorter bursts of sucking)
  - Poor suck-swallow-breathe coordination
  - Limited alert periods
  - Sensory sensitivities

Shared Observation-Based Education

- Reorient parents’ and caregivers’ expectations
- Carefully assess infants’ abilities and behaviors
  - Understand baseline
  - Help parents’ monitor progress
  - (Learn from skilled colleagues)

Specialized Behavioral Assessments and Interventions

- Newborn Individualized Developmental Care and Assessment Program (NIDCAP)
- NICU Network Neurobehavioral Scale (NNNS)
- Preterm Infant Breastfeeding Behavior Scale (PIBBS)
- AWHONN Near Term Initiative

Summary

- Anticipatory guidance and follow-up in the newborn period are central to maintaining exclusive breastfeeding
- Lactation specialists play a central role in assessment and skilled support

Summary

- Infant temperament influences behavior but caution should be used to avoid “labeling” infants
- Preterm infants’ health, function, and abilities vary widely, requiring an individualized approach

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