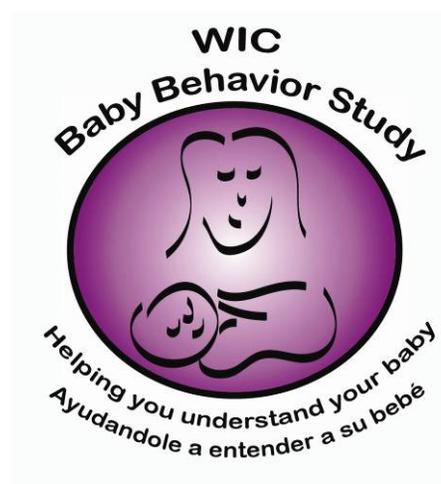


# New Tools to Reduce Overfeeding:

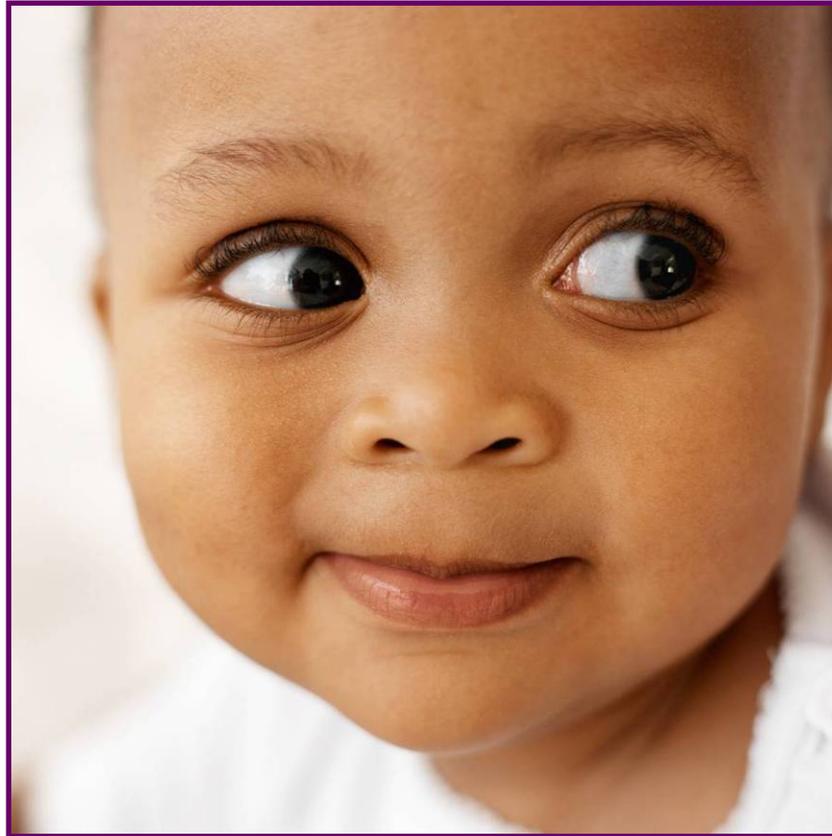
## The FitWIC Baby Behavior Study

M. Jane Heinig, PhD, IBCLC  
Jackie Kampp, MSN, RN, PHN  
Jennifer Bañuelos, MAS  
Jennifer Goldbronn, RD  
Colleen O'Loughlin  
Kerri Moore  
Luz Elvia Vera Becerra, MS  
Department of Nutrition  
UC Davis Human Lactation Center



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# Welcome!



# We want to help you learn:

- Why baby behavior can influence risk for childhood overweight and obesity
- “Secrets” of baby behavior
  - How infants’ moods affect their behavior
  - How babies communicate with caregivers so that their needs are met
  - How healthy babies sleep
  - Why babies cry
- How to teach parents about these secrets

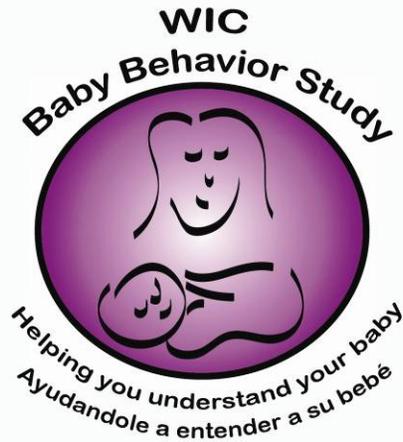
# How much do you know?

- How far (in inches) can a newborn see?
- What do babies like to look at more than anything else?
- What percentage of a newborn's weight comes from the baby's head?
- How many diapers does the average baby go through in the first year of life?

# How much do you know?

- How far (in inches) can a newborn see?
  - **12 inches**
- What do babies like to look at more than anything else?
  - **Faces (especially their own mother's face)**
- What percentage of a newborn's weight comes from the baby's head?
  - **25%**
- How many diapers does the average baby go through in the first year of life?
  - **3000**

# Part One



## The FitWIC Baby Behavior Study Background

# UC Davis Focus Groups (2003)

- Many moms feel helpless in dealing with their baby's behavior
- They believe babies cry because of hunger (formula and cereal prevent hunger)
  - “When I gave formula, the baby no longer cried and slept, and that is when I decided not to give him breast milk.”

Heinig et al. J Hum Lact. 2006; 22: 27-38.



# UC Davis Focus Groups (2003)

- They believe babies wake because of hunger
  - “The baby sleeps better with formula.”
  - “From the time she was maybe 3 or 4 months old, I started putting a little cereal in her bottle, and it was like at night. It would help her; she would be full and sleep through the night.”

Heinig et al. J Hum Lact. 2006; 22: 27-38.



# UC Davis Focus Groups (2003)

- They think their babies will stay full longer if they are overfed
  - “He was not full, and I gave him other things. My baby used to wake up, but now I am giving him formula if he is already full and he no longer wakes up.”

Heinig et al. J Hum Lact. 2006; 22: 27-38.



# UC Davis Focus Groups (2003)

- Mothers are pressured by others to feed:
  - “ His dad went and bought the formula and he still would wake up. Oh my God, I’m not going to get no sleep. His grandma, she went and bought the rice cereal and started mixing it up, and he’d eat it and he’d burp a little and then he started sleeping more and more because he was full, but before that he was not full, he was always hungry and crying. His dad would say, ‘Are you feeding him?’ ”

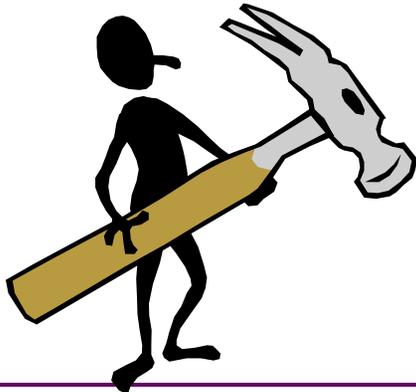
Heinig et al. J Hum Lact. 2006; 22: 27-38.



Being a  
new mom  
is stressful!

# Coping with Stress

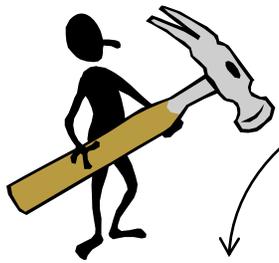
- If parents can see a solution – they'll try to find ways to fix the problem



- If parents can't see a solution – they'll try to calm themselves down



Glanz J Occup Med 1992; 34: 1071-8.



# Coping with Stress



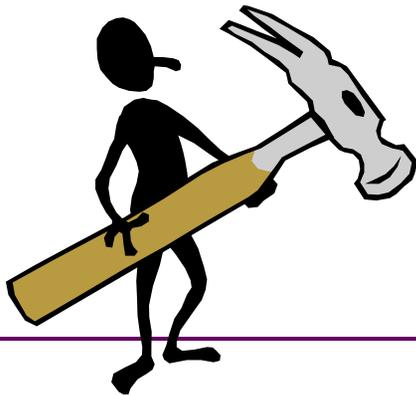
- If parents believe there is a solution – they'll try to find ways to fix the problem
  - I'm going to call the lactation consultant
  - I'll try to swaddle the baby the way the nurse showed me in the hospital
  - I'll talk to my doctor about why he wakes up

- If parents don't believe there is a solution – they'll try to calm themselves down
  - Breastfeeding isn't really that important. She'll be fine.
  - If I didn't have to work, I wouldn't have to formula feed.
  - My child is overweight, but he only stops crying when I feed him

Glanz J Occup Med 1992; 34: 1071-8.

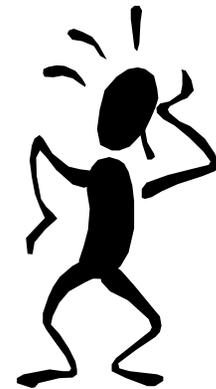
# Coping with Stress

- If parents can see a solution – they'll try to find ways to fix the problem



\*Parents need tools to help them believe they can handle their infants' crying and waking behavior without overfeeding

- If parents can't see a solution – they'll try to calm themselves down



Glanz J Occup Med 1992; 34: 1071-8.



# Your Turn!

Pair  
&  
Share

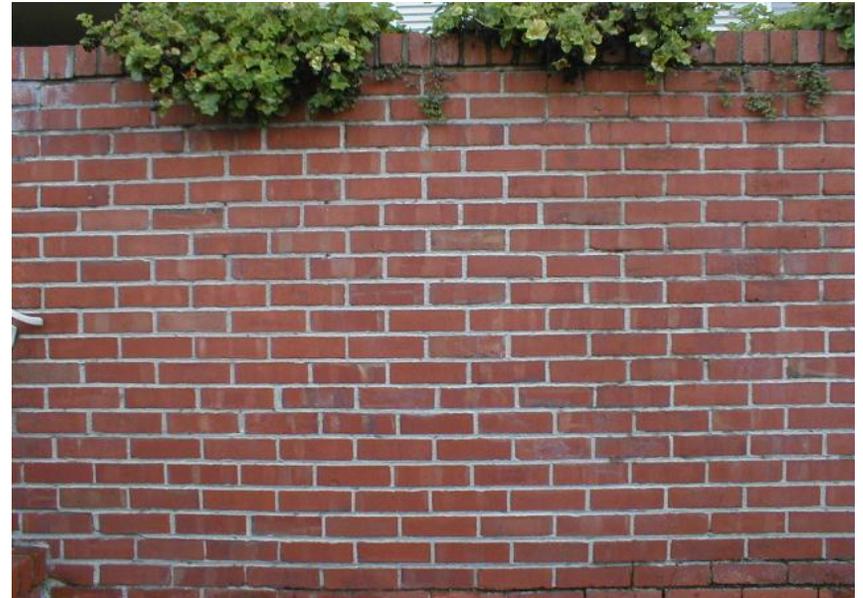
- **#1:** Have you seen a mom recently who solved a problem because she believed there was a solution? What happened?
- **#2:** Have you seen a mom recently who was trying to calm herself down because she didn't think it was possible to solve her problem? What happened?
  - We will ask you to share a few of your stories with the group!

# Feeding in Response to Baby Behavior

- We found that mothers feel overwhelmed by crying and waking
  - If breastfeeding, they start adding formula
  - Add more formula, and more formula
  - Start solid foods (cereal in the bottle)
  - Add other solid foods
  - Feed every time the baby makes noise

# WIC Participants: Coping with Stress

- We can't ask participants to run through walls
- We have to provide tools so that what we're asking them to do sounds doable!
- Every "should" must include the "how"



# What can WIC do?

- Many WIC moms misinterpret normal infant behavior (crying and waking) as never ending hunger cues
  - WIC can help moms and dads to tell the difference between hunger and other cues
  - WIC can help moms and dads know why babies wake up
  - WIC can help moms and dads feel confident that they know what their babies need

# Baby Behavior Works!

- Our intervention clinics have increased their 0-6 mo exclusive breastfeeding rates almost 7%, a 43% increase above the rates when we started!
- Formula use in our intervention sites dropped 7% even though caseload increased nearly 4% at the same time



# Normal Infant Behavior

- Baby behavior information is just another “tool” for you to help WIC moms
- Does not replace current breastfeeding or nutrition support
- Here we go....



# Part Two



## Infant States and Cues

# Infant “States”

- State = group of behaviors that occur together
  - Body movement
  - Eye movement
  - Breathing (fast or slow)
  - How much they respond

NCAST Keys to Caregiving

# Infant States

- Crying
- Irritable
- Quiet alert
- Drowsy
- Active sleep
- Quiet sleep



Increasing  
intensity

# Crying

- Tears
- Jerking motions
- Color changes
- Tight muscles
- Rapid breathing
- Responds slowly



# Irritable

- Lots of body movement
- Facial movement
- Eyes open but may not want to interact
- Sometimes fussy
- Sensitive to what's going on inside and around them
- Common before feeding



# Quiet Alert

- Little body movement
- Eyes open and wide
- Steady, regular breathing
- Highly responsive
- Wants to learn and play
- Can be tiring for young babies
  - Learning is hard work!



# Drowsy

- Variable movement
- Irregular breathing
- Opens and closes eyes
- Eyes glazed
- Takes time to react
- Easily startled



# Active Sleep

- Moves a little every now and then
- Variable breathing
- Facial twitches
- Rapid eye movements (REM)
- Easy to wake



# Quiet Sleep

- No body movement
- Rhythmic breathing
- Bursts of sucking
- Startles but does not wake
- Does not respond
- Hard to wake



# Your Turn



NAME THAT STATE!

# Changing States

- **Variety to waken**

- Use different positions, touch, words
- Will take longer if very drowsy or in deep sleep
- Can take up to 10-15 minutes for very young or premature infants to wake up enough to eat well

- **Repetition to soothe**

- Address the child's needs – see if change in position or circumstances helps
- Repeat actions or words over and over
- May take time if infant is very upset

-NCAST Keys to Caregiving

# Helping Infants Control their State

- Healthy infants will try to control their own state and give cues to “tell” others what they need
- Caregivers can play an important role in helping infants feel comfortable and safe

Adapted from: NCAST Keys to Caregiving

# Types of Infant Cues

- Young infants try to tell caregivers when they want to interact (**engagement cues**)
- Young infants try to tell caregivers when they need to “take a break” or do something different (**disengagement cues**)
- Interactions will have both types of cues, caregivers need to **look for pattern**

Kelly et al. Promoting First Relationships, NCAST Pub 2003

# Engagement Cues

## “I want to be near you”

- Obvious

- Looking intently at face
- Rooting
- Feeding sounds
- Smiling
- Smooth body movements



- Subtle

- Eyes open
- Face relaxed
- Feeding posture
- Raising head
- Following voice and face



Kelly et al. Promoting First Relationships, NCAST Pub 2003

# Disengagement Cues

## “I need a break”

- Obvious

- Turns away
- Pushes, arches away
- Crying
- Choking, coughing
- Extending fingers, stiff hand
- Falling asleep



- Subtle

- Looks away
- Faster breathing
- Yawning
- Hand to ear
- Grimace
- Glazed look



Kelly et al. Promoting First Relationships, NCAST Pub 2003

# Clustered Cues: Hunger

- Clenched fingers and fists over chest and tummy
- Flexed arms and legs
- Mouthing
- Rooting
- Fast breathing
- Sucking noises/motions



Kelly et al. Promoting First Relationships, NCAST Pub 2003

# Clustered Cues: Full

- Arms and legs extended
- Fingers extended and relaxed
- Pushing away
- Falling asleep
- Slow or decreased sucking
- Back arching



Kelly et al. Promoting First Relationships, NCAST Pub 2003

# Helping Parents Respond to Cues

- Engagement cues
  - Interact and play with baby
  - Best time to learn, play, feed
  - Keep in mind that engagement is hard work!
- Disengagement cues
  - Change the environment (diapers included)
    - Fix the problem, provide comfort
    - Stop interactions (siblings too)
      - Let the baby have a break

Kelly et al. Promoting First Relationships, NCAST Pub 2003



## Case Studies

# Your Turn

In your clinic groups:

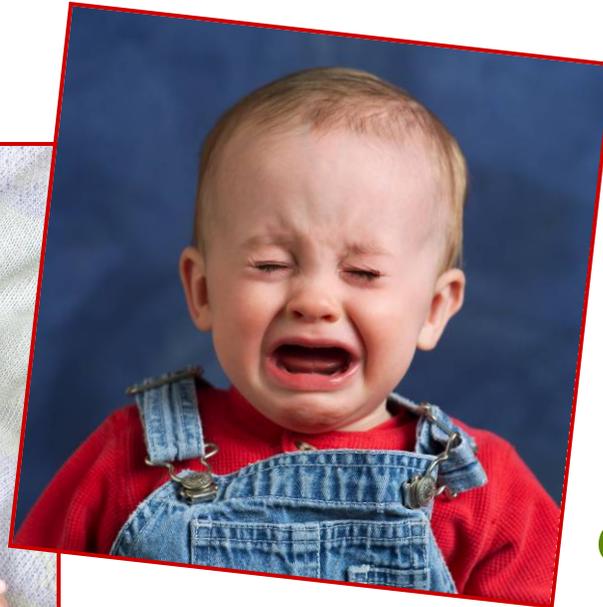
- Practice counseling using the case studies provided by your team leader
- Case studies focus on teaching parents about infant cues using the handout “Understanding Your Baby’s Cues”
- We will share some of your case study answers with the larger group.



# Homework Challenge!

# Coming Up Next Month...

S  
L  
E  
E  
P



C  
R  
Y  
I  
N  
G

What are your questions about infant states or cues?