Skin to Skin Care
Baby’s First Touch
Objectives

- Attendees will be able to define skin-to-skin
- Attendees will be able to identify three positive outcomes for skin-to-skin
- Attendees will be able to verbalize how to implement skin-to-skin with the mother and/or father
- Attendees will be able to understand how skin to skin can be incorporated into the whole postpartum period
Infant Crying
Crying in the Newborn

- Increases right atrial pressure – the foramen ovale opens, venous blood mixes with oxygenated blood, cyanosis results
- Increases intra-cranial pressure
- Initiates a cascade of stress reactions
- Depletes energy reserves

Interferes with the infant’s ability to adapt to extra-uterine life
Separation of Mother and Baby
Separation of Mother and Baby

- The infant develops the ability to better cope with stresses when he is with his mother
- Connection allows the infant to expand his or her responses to cope more effectively with different stressors
- “Stresses” are physical and psychological
- The separation causes a dis-regulation and impacts the structural organization of the brain

- Attachment = Regulation = Well-being
New Research

- A healthy gut is critical to a lifetime of health
- Colonization of the gut begins immediately after birth

- Optimal Health
  - Vaginal birth and immediate skin to skin contact

- What to do if ideal doesn’t happen?
So Much Better!
Benefits of Rooming In

- Moms and Babies sleep an average of $\frac{1}{2}$-1 hr longer in a 24 hour period.
- Mom learns early feeding cues
- Babies put skin to skin adapt better
  - Higher glucose
  - Better HR and Respiratory Rates
  - Less crying
  - Feeling of security
- 2nd Night!!!!
History of Skin-to-Skin

- Dr’s Rey and Martinez
  - Bogota & Cali, Colombia, South America

- Gene Cranston Anderson, R.N., Ph.D., F.A.A.N.

- Dr. Nils Bergman
  - Introduced KMK in South Africa in 1995
Terms for Skin-to-Skin

- **KMC** = Kangaroo Mother Care
- **KC** = Kangaroo Care
- **STS** = Skin-to-skin
- **SSC** = Skin-to-skin Contact
Definition of skin-to-skin

- Place the baby naked or with only a diaper prone on the mother’s / father’s bare chest
- Usually takes place at birth or soon after
- Cover the baby with a warmed blanket
- Place a hat on the baby’s head
Visual of skin-to-skin
Skin to Skin in the OR
Skin to Skin in Recovery
Skin to Skin with Preemies
Dads and Skin to Skin
Infant Brain

• By 20 weeks gestation all structures are formed
  ○ Billions of neurons will form
• At birth the highest number synapses will occur
• From there it’s the environment that determines outcomes
  ○ Wiring and firing
  ○ Neurons that aren’t used will die off
• Body will deal with underuse, eustress and distress
  ○ Both underuse and distress can have detrimental impacts
  ○ The usual place to learn adaptation is with the mother
    ▪ Another person can be substituted but mom is ideal
Preterm Brain

- Significant brain growth occurs between 36 and 40 weeks of gestation
  - One of the reasons the March of Dimes pushed for “no early delivery unless medically indicated”
- For early babies, skin to skin is even more critical
  - In order to adapt and obtain regulation
  - Organization of the brain occurs skin to skin
    - Complex and subtle neurological/biological cues and behaviors
Baby Friendly USA
Step 4: Help mothers initiate breastfeeding within an hour of birth.

Uninterrupted Skin to Skin in the first hour is the critical piece
The W.H.O. Evidence for Skin-to-Skin

- Takes advantage of the “alert” 1-2 hours after birth
- “Contact” and “suckling” are interrelated
  - Suckling movements start at a peak of 45 minutes
- Increase in breastfeeding rates at 2 to 3 months
- Promotes maternal behavior
- Newborn skin temperatures were higher, higher blood glucose levels, and plasma base-excess returned to normal faster
- The newborn cried less
Impact on breastfeeding duration of early infant-mother contact

The Cochrane Criteria for Studies of Skin-to-Skin

- Looked at all randomized or quasi-randomized studies that encouraged skin-to-skin and was “compared to usual hospital care” (Cochrane, p.7).
- Looked only at studies with a control group, and that were of high quality, looked for bias.
- With inclusion criteria – 30 studies, 29 were randomized control and one was quasi-randomized.
The Cochrane Evidence for Skin-to-Skin

- Breastfeeding outcomes
- Maternal feelings
- The Infant
The Cochrane Evidence for Skin-to-Skin

- **Breastfeeding outcomes**
  
  - More likely to breastfeed successfully during the first feed post birth than those babies who were swaddled in blankets.
  
  - Infants held STS had more mouthing movements than those who were not.
  
  - Statistically significant and better overall performance on all measures of breastfeeding status: duration (2-4 months).
The Cochrane Evidence for Skin-to-Skin

- **Maternal feelings**
  - Had less anxiety at 3 days post birth
  - No difference in milk supply, number of breastfeeding problems, or parenting confidence
  - Those who held their infant STS had a strong desire to do it for future deliveries
  - Maternal attachment behavior
Maternal attachment behavior

- STS increased the amount of maternal affectionate behaviors – kissing, smiling, en-face (face-to-face contact)
- Bias and questionable validity of multiple studies were noted
- Hard to differentiate a mother’s perception of bonding/connection
- One study from Vietnam, when Baby Friendly was implemented as a nation, showed a decrease in the abandonment rate and incidence of child abuse
The Cochrane Evidence for Skin-to-Skin

- Infant temperatures
  - Mom warms and cools
  - Others can warm a baby

- Infant physiological outcomes
The Cochrane Evidence for Skin-to-Skin

- **Infant temperatures**
  - STS infants had more skin temperatures in the neutral range than baby under the radiant warmer
  - Mean temperature for STS infants was higher than in control group
The Cochrane Evidence for Skin-to-Skin

- Infant Physiological outcomes
  - STS infant had lower mean ht rate, respiratory rate
  - Blood glucose was statistically higher in one study (10.56 mg/dl higher)
  - Better stabilization using SCRIP scores (measures infant cardio-respiratory stability that uses ht rate, respiratory rate, and o2 sat)
  - No difference in the length of stay for late preterm infant
  - Multiple studies have shown that STS infants cry less
The Cochrane Discussion for Skin-to-Skin

- Success of first breastfeed
- Breastfeeding success at day three postpartum
- Breastfeeding duration at one to four months
- Maternal breast engorgement pain
- State anxiety
- Infant recognition of their mother's milk odor
- Maintenance of infant’s temperature
- Infant crying, blood glucose, SCRIP scores, physiological parameters
What about the father?

- Father’s many times feel like outsiders
- Gives the father an opportunity to be a care-giver from the time of birth
- Showed that when the father did skin-to-skin –
  - Infant temperatures were within normal range
  - Blood glucose levels were up
  - Catecholamine levels were within normal range
References

- Bergman, N. (2009), Breastfeeding and Skin-to-Skin, SWAG Conference, Berkeley, CA.