

# **Do Common Maternity Care Practices Affect Outcomes?**

Compare common “medicalized practices with “physiologically normal” practices

# How Emotions Affect Labor

- The mind-body connection
  - Endorphins reduce pain, increase joy
  - Oxytocin, the “love, calming hormone”
  - Prolactin, the “altruistic,” “mothering hormone”
- The effects of fear and distress
  - Excessive catecholamines counteract beneficial effects of endorphins and oxytocin

# What Are Catecholamines?

- Stress hormones that enable a person to avoid danger or confront it
  - Adrenaline (Epinephrine)
  - Noradrenaline (Norepinephrine)
  - Cortisol, and others
- They also make a person more alert and tense
- Fear, anxiety, pain, can increase catecholamines, even if there is no danger
- Slow labors, fetal distress can result

# Downstream consequences

of onset of labor

- Spontaneous – ensures fetus's readiness for life outside mother's uterus
- Elective induction increases
  - Late term prematurity
  - NICU admissions, mother-baby separation
  - Labor time in hospital
  - Cesareans for fetal distress, failed induction in nullips
  - Postpartum hemorrhage
- ACOG says no elective inductions at <39 wks

# Downstream consequences

of labor support

- Continuous doula support increases
  - Spontaneous vaginal birth
  - Maternal satisfaction with birth
  - Psychological well-being
- Continuous doula support decreases
  - Pain medications use
  - Surgical delivery (cesareans, instruments)
  - NICU admissions
- “Usual care” – just the opposite

# Downstream consequences

of hydration in labor

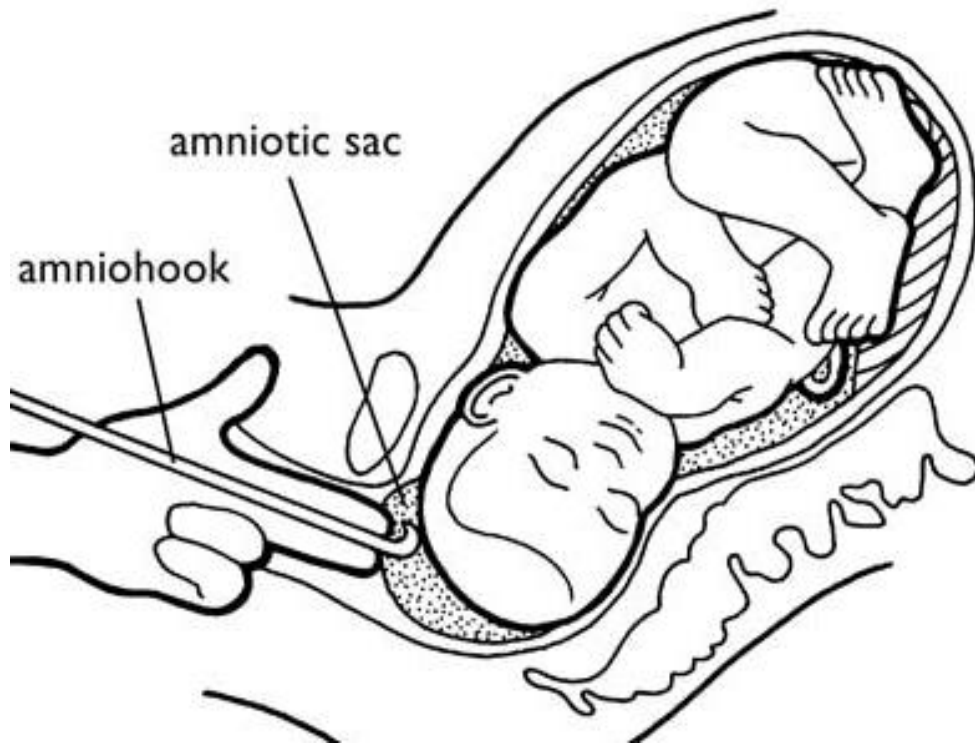
- Intravenous hydration may lead to—
  - Inconvenience and discomfort for mother
  - Fluid overload, hyponatremia, foot and hand swelling that lasts for days
  - Mother feeling deprived of basic comfort
- Drinking her choice of liquids to thirst
  - Enhances sense of normalcy for mother
  - Usually adequate in normal labor
- *Caution: Too much oral or IV fluid can lead to fluid overload and prolonged labor....*

# Downstream consequences

of monitoring in labor

- Electronic fetal monitoring assoc. with
  - Differing interpretations by experts\*
  - More C/S for non-reassuring FH Tracings
  - No improvements in newborn outcomes\*\*
  - Restrictions of mother's activity
  - Inability of cg to auscultate FHT
- Auscultation is less disturbing to the mother, and
- Auscultation has as good outcomes as EFM

# Care of amniotic sac



# Downstream consequences

of care of amniotic sac

- Artificial rupture of membranes (ROM)-
  - May speed labor (by average 40 min.)
  - May cause a pre-existing fetal malposition to become persistent
  - Increases chance of infection
- Spontaneous ROM
  - Usually occurs late in 1st stage or in 2<sup>nd</sup>
  - May enhance chance of rotation to OA

# Downstream consequences

of pain management

- Suffering may increase likelihood of trauma and PTSD
- Narcotics ineffective and unpleasant
- Epidural reduces pain, but not distress
  - Companionship and support still needed
- Is invasive and unsafe without precautions and interventions
- Trade-offs –
  - low blood pressure, fever, fetal malposition and distress, urine retention, slow progress

# Downstream consequences

of positions and movement in labor

- Supine position or restriction of movement
  - Increases dystocia, malposition, pain, fetal distress, maternal stress
- Freedom of movement and choice of position
  - Increases comfort, decreases above effects
  - Enhances maternal satisfaction

# Downstream consequences

of positions for pushing

- **Supine position (most common in NA)**
  - Narrows birth canal, increases effort needed to birth baby
  - Increases vacuum, forceps deliveries
  - Increases pelvic floor damage, episiotomy
  - Prolongs 2<sup>nd</sup> stage
- **Non-supine positions & mother's choice**
  - Increase chance for spontaneous birth
  - Reduce pelvic floor damage
  - Increase mother's satisfaction

# Downstream consequences

of pushing techniques

- Prolonged breath holding & straining
  - Increases non-reassuring fetal heart tones
  - Increases pelvic floor damage
  - Increases long-term problems of pelvic floor relaxation
- Delayed or spontaneous bearing down
  - More intact perinea & spontaneous births
  - Fewer 3<sup>rd</sup> & 4<sup>th</sup> degree tears
  - Improved fetal well-being

# Downstream consequences of perineal care practices

- Routine episiotomy
  - More 3<sup>rd</sup> and 4<sup>th</sup> degree lacerations
  - Prolonged postpartum pain & healing
  - No benefit to mother or baby, except rarely
- Avoidance of episiotomy
  - 30 – 50% intact perineia
  - If combined with non-supine positions and spontaneous bearing down, few long-term pelvic floor problems
  - Less pain, faster healing

# Downstream consequences of surgical birth

- May prevent serious problems for mother or baby
- Sometimes necessitated by earlier interventions
- V-E/ forceps
  - Damage to mother's perineum
  - Swelling, bruising of baby
- Cesarean
  - All the risks of major abdominal surgery
  - Increased maternal problems in future childbearing
  - Prolonged time required for neonatal adaptation
  - Prolonged maternal recovery
  - Delayed or compromised mother-infant interaction

# Downstream consequences of natural childbirth

- **To mother**
  - Hormonal enhancement of positive maternal feelings & behaviors
  - Usually quicker recovery time
- **To baby**
  - Optimal condition at birth (no need to recover from medications, procedures)
- **To both**
  - Mutual regulation between mother and baby
    - Temperature
    - Breastfeeding
- **To family**
  - Ready and able to adjust to their new roles together

# Downstream consequences

of clearing of newborn's airway

- Bulb & deep suctioning cause gagging, abrasions of mucus membranes, and “oral aversions”
- Doesn't reduce respiratory problems or meconium aspiration in vigorous baby
- Vigorous newborn is able to expel the fluids, mucus, and handle meconium
- Self-clearing of secretions may improve early breastfeeding

# Downstream consequences

of timing of cord clamping

- Immediate clamping & cutting
  - Enables removal of baby to warmer,
  - Doesn't prevent jaundice, as believed
- Delaying clamping for 2 min. or more
  - Allows physiologic transfusion of blood between baby and placenta
  - Improves infant hematologic status at 2 and 6 months (i.e., less anemia)
  - Encourages close mother-infant contact

# Downstream consequences

of immediate placement of baby & access for feeding

- Separation may interfere with mother-infant attachment, delay successful breastfeeding, and increase stress and crying time.
- Immediate, constant skin to skin and eye to eye contact improves newborn's adaptation, temperature, breastfeeding, reduces crying, and promotes intuitive & affectionate care by mother.

# Downstream consequences

of first days after birth

- Mother and baby together promotes
  - Establishment of “on cue” breastfeeding
  - Mutual regulation of temperature
  - Maternal behavior
- Father-baby skin-to-skin contact in first day and afterwards promotes protectiveness and closeness toward baby
- Separation increases newborn distress and maternal depression or detachment

# Conclusions

- What will be the impact on the human species if giving birth and being born “as nature intended” are removed from the life cycle?
- Does it matter?

*It Matters !!!*

