

“Parenting at Night: How and where babies sleep and what’s ‘best’ for families”  
Plenary Session, Thursday, July 23, 2009 11:30 AM – 12:30 PM (page 55)

Helen Ball, PhD (in Biological Anthropology from U Mass, Amherst), Professor of Anthropology, Durham University, Durham, U.K., Runs a university Parent-Infant Sleep Lab, author: **Ball, Helen L.**, Hooker Elaine & Kelly Peter J. 1999. [Where will the baby sleep? Attitudes and practices of new and experienced parents regarding cosleeping with their new-born infants](#). *American Anthropologist* **101**(1): 143-151.  
<http://www.dur.ac.uk/anthropology/staff/profile/?id=121>

and Lauren Porter, BS, MSW, Psychotherapist, Secretary of the Infant Mental Health Association of New Zealand

Ball:

Anthropologists take a long view: How did babies come to sleep in a certain way? Clinicians focus on individuals. A proximate vs an ultimate perspective. Compared with other species, human infants are neurologically undeveloped at birth. Human brain size at birth is only 25% of adult brain size. For other mammals it is 50%. Other primates experience rapid brain growth as a fetus, slows down at birth. For humans, does not slow down at birth. Have rapid brain growth until 1 year of age. There is an evolutionary conflict between bipedalism (walking on 2 feet) and encephalization. Head has to fit through a narrow pelvis at birth. The compromise is truncated gestation and total caregiver dependency (external gestation). Infant depends on the mother for temperature regulation, etc. while the brain matures. Sleep contact is a normal feature of human development. Solitary sleep is historically novel for infants. The 20<sup>th</sup> century was the dawn of “scientific baby care,” with men like American behavioral specialist John Watson advocating infant independence and that “no child can have too little affection.” Frederick Truby-King of New Zealand advised that a “good baby” likes to be solitary. But evolution doesn’t change in 100 years. Western fashions in infant care have changed much more rapidly than evolution. Meredith Small – “Our Babies, Ourselves” We are unusual in separating mothers and babies for sleep. No one else does this. Breastfed babies have different sleep habits than formula fed babies. Younger breastfed babies feed more frequently at night. The cessation of bedsharing is actually related to the cessation of breastfeeding, more than to the introduction of other foods. Around 50% of babies 0 – 6 months old spend some time sleeping in their parents’ bed. This used to be seen as deviant behavior. On any given night, 20% of babies (whether breastfed or formula fed) are in their parents’ bed. 65% of babies who ever breastfed bed-shared at least occasionally. About 72% of those who were breastfed longer than 1 month. 38% of those who were formula fed. Breastfeeding, bedsharing mothers and babies sleep in a characteristic way: baby is on his/her back, mother and baby face each other, mother’s arm is above baby, her legs are curled around below, creating a protected space. The baby is at breast level, with the mother curved around. Formula feeding mothers don’t do this.

There are risk factors to bedsharing: baby sleeping with a parent who smokes, especially a mother who smoked during pregnancy; alcohol use, drug use, excessive tiredness, smothering (pillows, bedding, etc.). Feeding data are not usually recorded in SIDS deaths.

Breastfed babies bedsharing: SIDS risk is 1 in 10,000

Formula fed babies bedsharing: SIDS risk is 8 – 10 in 10,000

Breastfed babies did better than bottle fed babies no matter where they slept.

Need standardized definitions of bedsharing.

Solitary sleep environments for newborns are historically novel, culturally circumscribed, and developmentally inappropriate. Insisting that all infants should sleep in solitary environments at all times is biologically unrealistic.

Porter:

Human sleep mechanism isn't fully developed until 5 years of age. Not all babies are the same. 1987 study found that older babies (6 – 12 months) woke the most.

A “signaler” lets us know they are awake. May do this one night and sleep through the next. This is normal behavior for babies. Mothers persevere on “was it a good night?” Connections in the brain are made based on experience. The neurons are there, but the connections are made as we develop. Early experiences are patterned around relationships.

Does leaving a baby to cry do harm? We don't know. But babies are not born with the ability to regulate their emotional state. Physiological regulation underlies emotional regulation. With brain development, what doesn't kill you makes you weaker. The more stress a child is subjected to at an early age, the more risk there is for long term problems. The mother provides regulating, calming environment for the baby's brain to develop. Sleep is the building block for later brain development.

Dr. Edward Tronick, Harvard U (PhD from UW), developed the still face paradigm, see [http://www.childrenshospital.org/cfapps/research/data\\_admin/Site440/mainpageS440P0.html](http://www.childrenshospital.org/cfapps/research/data_admin/Site440/mainpageS440P0.html) : Social communication occurs between mother and baby. Most of the time we are not in perfect synchrony (only 20 – 30% of the time are we), but we should focus on getting back into synchrony. Physical presence is not enough. Baby is not trying to be manipulative. Baby is saying, “My world is now OK, because you are in it.” Soothing occurs when a baby feels safe. For babies, sensory stimulation is soothing: sound, presence, smell are normal parts of a baby's experience.

You can train animals and humans to do certain things. That doesn't make it good or moral. The sleep training programs lack empathy.

Going to sleep is learning to separate. If birth didn't go well, can affect other separations. If separations are anxiety producing, can trigger anxiety around sleep. Use relationships to soothe, to regulate, to reduce stress, to assist in settling and falling asleep. Sleep training methods often tell parents not to talk or pick up child, to stand outside the room, etc.

Follow a baby's cues for readiness to separate. At 4 months a baby is on and off the breast. Maybe is ready to not fall asleep on the breast. Maybe ready to fall asleep while held instead. Allow the baby to grow and develop on his own.

Helen Ball, PhD

Plenary Session: Thursday, July 23, 2009 3:30 – 4:30 PM (page 59)

“Breastfeeding on the Postnatal Ward: Does It Matter What Happens at Night?”

**Ball, Helen L.**, Ward-Platt, Martin P., **Heslop, Emma**, **Leech, Stephen J.** & Brown, Kathleen A. 2006. [Randomised trial of infant sleep location on the postnatal ward](#). *Archives of Disease in Childhood* **91**(12): 1005-1010. ([Additional information](#))

What does baby need to successfully initiate breastfeeding:

- Awake and undrugged
- Close proximity to mother’s body
- Time to express innate ability

What does mother need to successfully initiate breastfeeding?

- Awake and undrugged
- Close proximity to baby
- Time to learn baby’s cues

History of postnatal separation:

Popularity of unconscious childbirth: 1900 – 1944, rise in use of chloroform.

Campaigns for anesthesia. Seen as a women’s rights issue.

Shouldn’t have to suffer pain in childbirth.

For anesthesia, needed to be in hospital. Unconscious mother couldn’t care for her baby during labor and delivery. Drugs got to baby, unable to suckle.

Post World War II, most births in hospital. Separation of mother and baby justified by infection control. Babies kept in nursery. Mothers needed rest after delivery.

Breastfeeding rates plummeted. Now taking steps to promote breastfeeding.

Introduction of unhurried delivery room skin to skin.

Closure of nurseries and promotion of rooming-in.

Is brief skin to skin in delivery room sufficient?

Is 24 hour rooming in sufficient?

She and Martin Ward-Platt studied and videotaped mothers and newborns in three sleep categories in the hospital post-birth, October 2003 – March 2006:

1. Baby in bed with mother (19)
2. Baby in crib attached to mother’s bed (like Arm’s Reach side-car arrangement) (23)
3. Baby in bassinet beside mother, but separated from her (23)

64 mothers and babies randomized. Normal, vaginal deliveries, no opiates within 24 hours (would affect infant behavior).

ITT – Intention To Treat – included all data, even if mother didn’t adhere to the assigned behavior.

Babies in separate bassinet had fewer feeding attempts. Showed feeding cues, but mothers were oblivious and slept through feeding opportunities. Took real effort to get baby back into bassinet after feeding.

Bed and side-car groups were equal. With little effort on baby’s part there was an immediate response from the mother.

Unhindered access is important. Facilitates contact between mother and baby, encourages greater interaction, facilitates frequent attempts at feeding, frequent suckling.

After expulsion of the placenta, progesterone level falls and prolactin mediates milk secretion. Night feedings lead to greater surge of prolactin than daytime feeds. Nipple stimulation leads to prolactin surges. More frequent feedings lead to greater lactogenesis and supply.

Prolactin receptor theory links early, frequent feedings to breastfeeding duration.

Depends on the early production of prolactin receptors. What happens in the immediate postpartum period affects long-term breastfeeding outcomes.

Proximity significantly affects breastfeeding frequency.

A separate bassinette is inferior to the side-car or in-bed for breastfeeding initiation.

Even if mother and baby are within a foot of each other, a separate bassinette disrupts the expression of behavioral and physiological interactions between mother and infant that promote the effective establishment of lactation and breastfeeding.

Mothers and infants got the same amount of sleep in all three groups.

No adverse safety effects for any group, but bed-sharing group had some infrequent, potential safety risks.

The side-car arrangement is best for safety and breastfeeding.

When the baby was in the mother's bed, the mother hardly moved at night and complained of being stiff in the morning.

Got funding for a larger study, which will look at breastfeeding duration.

She doesn't like swaddling for bedsharing babies. Restricts baby's movements.