Tools for Teaching

Newborn Capabilities: Parent Teaching Is a Necessity

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Abstract

Parent-infant communication has long-lasting effects on the development of a peaceful and healthy child, adult, and society. Childbirth education classes offer the perfect setting for teaching parents how to recognize and respond to their infant's cues. This column provides a list of potential learning tasks for parents and their infants in order to facilitate and improve the basis of effective communication.

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The greatest terror a child can have is that he is not loved, and rejection is the hell he fears. I think everyone in the world to a large or small extent has felt rejection. And with rejection comes anger, and with anger some kind of crime in revenge for the rejection, and with the crime guilt — and there is the story of mankind.

—John Steinbeck
East of Eden (1952)

Children want to be loved and parents want to love their children. But what happens when miscommunication interferes with bonding and attachment between infant and parent? Where are parents taught to read their newborn's cues? Research tells us the results of parent-infant miscommunication have long-lasting effects on the development of a peaceful and healthy child, adult, and society.

Lamaze classes are the perfect setting for determining the general body of knowledge of these new parents and giving information and resources to help

them interpret their infant's signals. How many parents know the signals that communicate hunger, too much stimulation, and the need to be attended to? How can parents interpret their infant's temperament so they understand the baby's likes and dislikes?

Information exists about infant hunger cues, engagement cues, and disengagement cues; yet, almost daily, we hear reports of infant death due to shaken-baby syndrome. One of the most common triggers causing adults to shake the life out of an infant is the child's uncontrollable crying. Although evidence shows more touch and physical interaction lead to less clingy and crying infants, the misconception that infants can be spoiled by parents responding too quickly to their cries is still prevalent in our society. In the CD-ROM version of his paper *The Origins of Love and Violence*, Dr. James Prescott, a developmental neuropsychologist, states, "There is neurological evidence that failure of mother love and affectional bonding in mother-infant relationships produces brain abnormalities that underlie depression, rage and violence in children and later on in adulthood" (Prescott, 2003). The information we now know about an infant's abilities to interact with its environment is largely unavailable to parents. As Dr. Prescott says, the mother-infant relationship is the beginning of all other human relationships, as well as to society and the planet itself.

Today, we know more about the infant's capabilities to both interact with its environment and shut it out when the interaction becomes overwhelming. Many parents do not have access to this information and still arrive home thinking their little bundle of joy is not capable of hearing or seeing, much less interacting. The sooner we establish communication between parents and infant, the greater attachment and less frustration parents may experience. Another major benefit in having this knowledge is promoting parent communication with their infant in order to stimulate the growth of connections in the infant's brain between storage cells that actually increase the infant's brain capacity.

Doulas, childbirth educators, visiting nurses, and other professionals have the opportunity to enlighten parents about their infants' unique capabilities. They see parents and infants together in nonstressful, familiar surroundings after the birth. When cherished and used appropriately, multiple teachable moments lead to appropriate communication between infants and par-

ents. As educators, we know that effective learning occurs when parents are empowered; thus, we teach by facilitation. If we set ourselves up as "the experts," parents will rely on us for information about their infants rather than trusting their own knowledge and wisdom. As parent educators, we must also be careful in what we teach. Professionals who are not familiar with information about sleep/wake states, engagement cues, disengagement cues, and feeding cues now have resources that allow them to learn and pass on this most important knowledge.

Educators must be aware of the infant's state of consciousness (also called "sleep/wake states") and adjust the amount of time of teaching to the infant's ability to participate. Before teaching parents, it is necessary to understand fully and be able to recognize the states of consciousness, signs of engagement, signs of disengagement, and feeding cues (see the Table).

Teachable moments are those in which the infant is in a sleep/wake state appropriate to the learning task, the parent is receptive, and the emotional climate is calm. The educator and the parents must be in tune with and respect the infant's emotional well-being.

Below, this column provides a list of potential learning tasks for parents to share with their infant. The tasks

Table 1 An Infant's Signals for Engagement and Disengagement

Engagement Cues	Disengagement Cues
Your infant wants to communicate with you when s/he: <ul style="list-style-type: none">• Stops moving• Gazes intently at your face• Has smooth arm and leg movements• Reaches out to you• Turns head or eyes toward you• Stretches fingers or toes toward you• Slows or stops sucking activity• Smiles• Coos• Begins babbling/talking• Has eyes wide open• Exhibits a brightened face• Raises head	Your infant wants a rest from brain activity when s/he: <ul style="list-style-type: none">• Turns head away• Cries, becomes fussy• Burps, hiccoughs, passes gas• Has droopy eyelids• Arches his/her back• Falls asleep• Squirms or kicks• Has pale or red skin• Turns eyes away• Exhibits fast breathing• Yawns• Wrinkles forehead• Has dull-looking eyes• Frowns• Places hand to mouth

can be conducted randomly and over a long period of time. Certainly, parents and infant are not receptive to moving through this list one task at a time until all are covered. Teachers of parent education must evaluate the emotional climate, appraise the infant's sleep/wake state, and choose a learning task appropriate for both.

A warm and comfortable way to begin the teaching session is to build on what we already know about babies' capabilities while in the womb. A discussion on the infant's ability to hear from 20 weeks gestation and the development of its senses in the second trimester may stimulate memories of the parents' knowledge of their infants before birth. We can then ask the parents to describe what their infant was like while growing inside the mother. How active was their infant? What types of food and music did their infant like or dislike?

Deep-Sleep State Learning Tasks

Parents can easily determine if the infant is in a deep sleep by lifting an arm or leg and feeling for tension. The infant shows little movement in the body or eyes. The infant may occasionally move or startle, but it is not capable of interacting or feeding.

Habituation to Light

Purpose: An activity that demonstrates the infant's strong capability to shut out stimuli that interfere with its sleep and growth.

Process: When the infant is in a deep sleep, shine a flashlight directly into its eyes for 1 to 2 seconds. At first, the infant startles or responds facially. Repeat the stimulus every 5 seconds (no more than 10 times) until the infant no longer responds.

Payoff: Parents will see their infant's personal response to visual stimulation in a deep-sleep state and know they do not have to maintain an abnormally dark household.

Habituation to Sound

Purpose: An activity demonstrating how infants are also capable of shutting out negative auditory stimuli without any teaching on our part.

Process: When the infant is in a deep sleep, shake a rattle or bell for about 1 second, 10 to 12 inches from the infant's ear. Repeat the shake or rattle every 5

seconds until the infant significantly decreases its response.

Payoff: The infant responds less and less with each ring or rattle. Parents will be able to carry on normal daily activities once they understand the infant has a strong capability to manage sound.

Light-Sleep State Learning Tasks

Infants in a light-sleep state have tension in their arms or legs when raised, their eyes are closed, and they move around more than when they are in a deep sleep.

Rooting Reflex

Purpose: An activity that demonstrates how, before birth, infants have developed a rooting reflex that allows them to find their way to the nipple.

Process: Hold the infant's arms across its chest and, with a clean finger, gently stimulate the corner of its mouth or the mid-section of the lower lip. When the infant is hungry and the rooting reflex is stimulated, the infant will turn its head to the stimulated side and open its mouth or, with stimulation to the lower lip, will open its mouth wide for feeding.

Payoff: Parents see the infant's readiness-to-feed cue. This is a wonderful time to discuss other readiness cues such as mouth movements, hand-to-mouth activity, and increased body movement. When an infant cries for nourishment, parents have missed previous cues indicating the infant is hungry. Other feeding cues include the following signals from the infant:

- wiggling,
- lip-smacking,
- finger-sucking,
- coughing, and
- yawning.

Sucking Reflex

Purpose: An activity that demonstrates how infants have an inherent sucking response that involves the tongue and is strong enough to milk the breast.

Process: Place a clean index finger in the infant's mouth, with the finger's pad facing toward the palate.

Encourage the parent to notice the pressure in the front of the mouth and the pull on the back of the tongue.

Payoff: Parents will feel a strong suckle and become more confident in the infant's ability to get what it needs from the breast. When performed in the drowsy or light-sleep state, parents can learn the infant does not need to be fully awake for successful feeding.

Drowsy State Learning Tasks

The transitional period between sleep and wake states is sometimes referred to as the "Popeye state." The infant has one eye open and the other eye closed. Movements are sluggish and interaction may not be what the infant wants.

Rooting, Suckling, Feeding Cues

Many parents believe they must wait until the infant cries to initiate feeding. In fact, the infant will feed quite nicely with its eyes closed. This allows for more frequent feedings during the day so the parents can benefit from the baby's long nap (4 to 6 hours) during the dark night when humans sleep best.

Quiet-Alert State Learning Tasks

In the quiet-alert state, the infant rarely moves but focuses intently with open eyes on people or an object in the room. This is a period of intense learning and interaction.

Tracking a Red Ball

Purpose: An activity that demonstrates the infant's sight abilities.

Process: Hold a red ball 10 to 12 inches from the infant's eyes and allow time for the infant to focus on the object. It may be necessary to shake the ball to attract the infant's visual attention. Move the ball very slowly to the left or right, back to midline, and then in the other direction. From time to time, allow the infant the freedom to disengage. Parents can also use their own faces instead of a red ball.

Payoff: Infants follow the red ball, demonstrating their ability to see and track objects at a close range, 8 to 12 inches, which is the same distance from a parent's face to their infant's face when holding their baby in

their arms. Parents learn to get close to their infant's face for the clearest sight.

Tracking a Gently Shaken Rattle

Purpose: An activity for demonstrating the infant's ability to turn in the direction of sound.

Process: Gently shake a rattle about 6 to 9 inches from the infant's ear, keeping the object out of the baby's range of vision. The infant should turn to find the source of the pleasant sound. This exercise can also be done by speaking softly into the baby's ear.

Payoff: Parents learn that infants will generally turn their heads toward the sounds they definitely hear.

Finding the Parent

Purpose: This activity underscores the fact that, even minutes after birth, the infant recognizes voices it heard while growing in the womb.

Process: Hold the infant between a stranger and a parent. Support the baby's body and neck, yet allow the infant the freedom to move its head. Both stranger and parent call softly to the infant. The stranger should match the tone of the parent. The infant turns its head to the familiar voice: the parent.

Payoff: It is so gratifying for parents to know their infants can hear and recognize the parent's voice over that of strangers. What a wonderful way to show the importance of parents caring for their infants.

Facial Mimicry

Purpose: This exercise demonstrates that infants see facial expressions and can mimic them.

Process: When the infant's and parent's eyes are fixed upon each other, the parent opens her/his mouth wide and waits for the infant to respond. After a brief time, the infant will open its mouth widely. After this, the parent may smile, and if she/he patiently waits, the infant will respond with a smile. Parents can also try frowning at their infant. The baby may respond in the same way. When the infant's eyes are not engaged with the parent's eyes, its brain is overstimulated and the infant is disengaging from the activity to take a rest. The parent should follow the infant's lead by quietly waiting until the baby begins to make eye contact again.

Payoff: Most parents are amazed at their newborn's ability to see and respond in these ways. This is also a way to allow an older sibling the chance to interact with the new baby and may help release the sibling's tension or apprehension over having another child in the house.

Active-Alert State Learning Tasks

During the active-alert state, the infant moves frequently and is more energetic with its eye movements and vocalization. Parents used to believe this period was the state in which optimal learning and interaction occurs. However, as we know today, the infant is capable of learning during other states of consciousness.

Stepping/Walking Reflex

Purpose: This exercise assures parents that infants have capabilities at birth that may disappear after a few weeks only to return a few months later.

Process: Hold the baby with both hands placed under its arms. Allow the infant's feet to touch the surface of the play area. The baby usually begins to move one foot up and down and then the other. If the infant merely stands, tilt its body slightly forward.

Payoff: This is definitely a Kodak moment: "Look, my baby is already walking!"

Crawling Reflex

Purpose: Today, most infants are placed on their backs to sleep as a means for safety from SIDS. This exercise allows the infant to spend time on its tummy in order to strengthen its arms and upper trunk.

Process: Place the infant on its tummy, away from the edges of a closed or open surface. Wait and watch as the infant crawls slowly. If the infant does not move, pressure can be placed on the soles of the feet to stimulate it to crawl.

Payoff: Infants need tummy time for general upper body strengthening. Parents learn that the best time for tummy time is when the infant is awake and supervised.

Crying State Learning Tasks

When the infant is unhappy, no one is happy! The crying state can be the most trying time for new parents

and is the source of many questions from new parents. The best learning activity during this time is for the infant to be held and have its needs met. This teaches them that, when they are in distress, someone will be there for them. Infants who do not receive motherly nurturing and a touching response to distress suffer brain abnormalities evidenced by lethargy, no laughter, no tears, vacant stares, and a lack of affection or feelings for anyone. Parents need a variety of tools to use when crying occurs. Every successful attempt to soothe the infant builds the new parents' confidence.

Signs of Stress

Educators and parents should be aware of signs indicating the infant is stressed and not available for more play at this time. The less obvious signs are when the infant winces, startles, or looks away. The infant may also yawn or splay its fingers. Later signals (meaning parents have missed earlier cues) are when the infant has tremors, startles, experiences a skin color change, and definitely cries. These cues signal the parents that it is time for a break. The infant's brain cannot interact any more. What a smart infant, to know when it is time to rest.

Still, when the infant is in stress, educators can assist parents in learning about their infant's abilities to calm themselves and ways parents can calm fussy babies. Cultural, animal, and human research studies demonstrate that infants who are held, attended to, and frequently breastfed have no reason to cry and seldom do. These nurtured children also grow up with substantially less aggression than nonnurtured children do. Children who do not receive the nurturing care mothers provide usually rock themselves continuously to give themselves the stimulation they lack. They have learned no one is available to listen to them, so they seldom cry or laugh. Stress prevention in infants during the prenatal stage and in early extrauterine development plays a significant role in the emotional health of the infant and later on as an adult.

Parents can use several methods of consoling measures with their infants. Jolene Pearson—author of *Parent-Infant Pathways*, a training guide for professionals—recommends The Flex/Hold™ position for infants who are born at full-term and younger than 3 months old (Pearson, 2003). "This position mimics the

flexed position the baby was in before birth and helps the baby suckle on his or her fist and fingers—something babies do to calm themselves” (p. 81). The infant is held facing outward from the parent’s chest. With one parent’s hand helping the baby keep its hands in contact with its mouth, the infant is allowed to flex forward. The other parent’s hand is placed at the infant’s feet, helping to flex its legs.

To help trigger the calming reflex, Harvey Karp (2002) recommends recreating the serenity the infant knew inside the womb. Inside the womb, powerful uterine sensations of confinement, frequent jiggly motion, and white noise louder than a vacuum cleaner triggered the calming reflex. Karp recommends five ways to activate the calming reflex outside the womb:

1. swaddling,
2. side or stomach position,
3. a loud shushing sound (shhhh) to mimic the uterine and placental blood flow,
4. swinging, and
5. sucking.

Karp cautions these methods must be done correctly to get the results parents want. Merely reading this description to parents will not be adequate for teaching.

Brazelton (1992) recommends a series of interventions that successively bring the parent closer to the infant for calming. Several of these methods can be used cumulatively, if needed. Brazelton recommends waiting for about 15 seconds to determine the nature of the infant’s cry. Then, the parent places his/her face about 12 inches from the infant and adds a calming voice close to the baby’s face. If the infant is not calmed by these two efforts, gently restraining the baby’s arms from flailing about might work. If not, the parent continues by picking up and holding the infant. Rocking the baby, dressing the infant more warmly, or allowing it to suckle may also help.

Fatigued and stressed by the lack of social support families once knew, new parents are vulnerable to infant crying and may react in unusual ways to calm their infants. If the infant is soothed, the parents are empowered. If parents are unsuccessful, a cascade of events may eventually lead to shaken-baby syndrome and a catastrophe. As educators, we have the opportu-

nity to make parents aware of their infant’s needs for calming.

Conclusion

The more the parent knows, the better Mom and Dad can respond appropriately to the infant without abuse or neglect. Unfortunately, harmful information is available to parents who seek a quick fix to responding to normal newborn behaviors instead of spending time to learn about the individual infant’s temperament. These quick fixes often come in the form of not responding to the infant’s voice (cries) or arbitrarily setting limits on feeding times and amounts. This type of neglectful parenting may lead to infants becoming adults who have no sense of trust or conscience. In one severe case of neglect, an infant refused to eat and had to be fed through a tube. The more parents know, the more attentive the parenting. Additionally, your efforts as an educator bringing infants and parents together in effective communication will help build a healthier society.

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Web Sites

www.normalbirth.lamaze.org
www.ttfuture.org
www.zerotothree.com
www.brazelton-institute.com

The Art of Living

If evolution really works, how come mothers only have two hands?

— Ed Dussault

Our earth is degenerate in these latter days: bribery and corruption are common; children no longer obey their parents; and the end of the world is evidently approaching.

— Assyrian clay tablet (2800 BC)

Everybody today seems to be in such a rush—anxious for greater developments and greater wishes and so on—so that children have very little time for their parents, parents have very little time for each other, and the home begins the disruption of the peace of the world.

— Mother Teresa

The art of mothering is to teach the art of living to children

— Elaine Heffner

The most important thing she'd learned over the years was that there was no way to be a perfect mother and a million ways to be a good one.

— Jill Churchill