Training Group 15 / Module 2

Bonding and Attachment with Treatment Strategies

by

Raymond Castellino, R.P.P.

Updated October 2010, 2016, 2021

Appreciation

I am grateful to Ginny Partridge, Sandra Castellino and Myrna Martin for their parts in editing this paper. RC

Introduction / Definitions

To summarize what I've learned from the last 10 years of work in BEBA and Womb Surround Process Workshops the three key aspects of my work boil down to:

1. Infant centered—learn from the babies;

2. Modes of connection—how people connect with each other;

3. Rhythmic integrity that occurs in human relationships—the attunement factor or harmonic resonance.

4. How babies who are preverbal express themselves and relate imprinted implicit memories and how verbal children and adults express imprints from preverbal time.

It turns out that these four aspects are essential for healthy bonding and attachment.

Bonding and Attachment

The terms bonding and attachment are used in many different ways throughout the literature. The term "bonding" was popularized by Kennel and Klaus with their landmark research on newborn needs immediately after birth *(Klaus & Kennell, '76)*. Since then "bonding" has been generalized by many to reference what parents and babies need to form the glue for their relationship. In speaking with audiences in Europe and America many use "bonding" to reference what the parents need to do to connect with their babies. In fact, bonding was used by

Kennell and Klaus to refer to the parents' emotional investment in the child. They used attachment to refer to the tie developing in the infant towards their parents (Klaus, Kennell & Klaus '95, p. 192).

The term "attachment" is generally attributed to the work of John Bowby. In "Attachment" (Bowlby '69, p. 179) he describes attachment behaviors activated in the infant to keep the infant in close proximity to her mother and to restoring proximity if it is impaired. Bowlby and Ainsworth developed the concept of the attachment bond that they said is a characteristic of the individual, not the relationship. This attachment bond is long term, specific to another person (usually the mother for an infant), emotionally significant, and results in the infant wanting close proximity to the person, seeking comfort and security in the person, and feeling distress at involuntary separation from the person.

In the 1990s and early 2000s, especially with Allan Schore's work, the term "attachment" is often used for both parent and babies (Schore, '94).

Some attachment and bonding researchers do not make any distinction between attachment and bonding. The "Attachment Parenting" group use bonding and attachment synonymously. Althea Solter writes in her book, *The Aware Baby*, "Bonding is a process by which a mother falls in love with her newborn baby." Others state that bonding is what occurs when the initial contact happens at birth and attachment is what occurs in the long range, "the hard work of staying in love." (Reeder, Martin and Koniak, p 603.)

Personally, given the history, I like to use bonding for parent's connection with their babies. Babies attach to their parents, so together bonding and attachment means the glue or the substantive matrix for making healthy connection. Bonding and attachment then are the processes by which parents and babies come to love each other in ways that supports optimal growth of the child and well being of the parents.

In BEBA and in Womb Surround Process Workshops it appears that a natural outcome of healing prenatal and birth trauma is that healthy bonding and attachment occurs in all the relationships of a family. Secure bonding and attachment is an effect of the work we are doing in BEBA and in the "Womb Surround" process workshops. In my view, prenatal and birth trauma imprinting interferes with the healthy bonding and attachment processes between baby and loved ones. The completion of the traumatic experience, especially integrating the experience consciously, leads to healthy bonding and attachment. When traumatic experience is not completed or integrated, something must be done to bring that about. Otherwise the compensation, survival and dysfunctional behaviors left over from the trauma will be repeated and recapitulated over and over again. The resolution of traumatic imprints from prenatal and birth experience allows healthy bonding and attachment to happen.

Healthy bonding and attachment supports:

- the full flow life energy,
- open clear communication,
- loving connection in relationships,
- the ability to hold presence in the moment,
- the ability to be spontaneous and creative,
- the ability to see and feel possibilities, and to have more freedom of choice,
- the strength to be present with pain is there,
- the strength to be present in our bodies with whatever the condition is occurs.

In healthy bonding and attachment individuation is also supported. It's an exquisite state of merging and knowing your separateness at the same time. This healthy bonding and attaching gives the baby the space to experience herself as a fully loved being and the parents a sense of profound gratitude for the presence of their child and the mysteries of life.

Interruptions and Insults to Bonding and Attachment

Interruptions have to do with breaks in rhythmic integrity and insults have to do with behaviors. Both are interrelated. It is necessary for the primary intention and need for babies and moms to have the sanctity of their connection respected. Misattunements interrupt the rhythmic integrity and harmonic resonance necessary for healthy bonding and attachment.

In contrast to healthy bonding and attachment, trauma bonding (van der Kolk '95, Levine '95) is what occurs when trauma, especially shock trauma overrides the ability to have access to one's primary being. Trauma, especially shock trauma, separates us from ourselves. When trauma is present and trauma is the focus of our life, we revolve our life around trauma, around the focus or the fulcrum of the trauma and our whole being is affected physiologically, emotionally and physically in our bodies. Sensation and hurtful associations are amplified. The traumatized person will become hypersensitive without, or withdraw within and numb out. If the infant and parents are not able to find significant resolution when prenatal or birth trauma or shock trauma occurs the baby may show attachment behaviors and be seeking security and comfort but be unable to recognize or find it. The strength of the seeking attachment behaviors are sometimes mistakedly regarded as reflecting the "strength" of the bonding/attachment. If the baby is seeking repeatedly and not finding settling into comfort and security this leads to a variety of "disordered attachments"(Ainsworth et al, '78).

The following list describing different attachment patterns is from Levy & Orlans ('98, p.61). It is based on the infant's behavior in the Strange Situation test which was developed by Ainsworth (Ainsworth et al '78). This "test" has been found valid and reliable across many cultures. The infant (12 to 20 months) is taken to an infant friendly room with toys with the Mother for four minutes. Then a stranger is introduced and plays with the infant…after 3 minutes the mother leaves the infant with the stranger and returns in 3 minutes. The stanger leaves quietly. After 3 minutes the mother leaves the infant alone in the room and after 3 minutes the stranger comes in to be with the infant. Then after 3 more minutes the mother returns for the second reunion and

the stranger leaves. In a secure attachment relationship the infant is upset when the mother leaves the room, but distress is not excessive, infant and mother greet one another actively and warmly upon reunion; the infant quickly relaxes and returns to play. Three major types of insecure attachments have been identified.

1. Avoidant Attachment: Infant shows little or no distress when mother leaves, and actively avoids or ignores mother upon reunion, mother also avoids, often looking away from the child
2. Ambivalent /Resistant: Infant is extremely distressed by separation, clinging, on to mother and staying near the door crying, seeks contact upon reunion, but cannot be settled by mother and pushes her angrily away.
3. Disorganized/Disoriented: these infants' behaviors represent seven types of reaction

Sequential display of contradictory behavior pattern: extremely strong displays of attachment behaviors or angry behaviors, followed suddenly by avoidance, freezing, or dazed behavior eg., infant greets parent with raised arms but then retreats and freezes

Simultaneous display of contradictory behavior: infant displays proximity seeking and avoidant behavior at the same time eg., infant approaches parent with head averted or by backing up toward the parent

Undirected, misdirected, incomplete, and interrupted movement and expressions: infant moves away from rather than toward parent when distressed, eg., infant appears frightened of stranger, but retreats from parent and leans head on the wall

Stereotypes, asymmetrical movements, mistimed movement, anomalous postures: infant shows repeated movement, such as rocking, hair twisting or ear pulling, asymmetrical creeping, sudden and unpredictable movement, uninterpretable postures

Freezing, stilling, slowed movement and expression: holding of positions, apathetic or lethargic movements or facial expressions, such as a dazed expression when greeting parent

Direct indices of disorganization or disorientation: clear displays of confusion and disorganization upon reunion eg., greeting the stranger with raised arms instead of going to the parent; rapid changes of affect, such as crying-laughing.

In order to survive, we develop very effective survival skills. We learn strategies of consciousness that lead to behaviors that are trauma bonding and survival based. Baby will attach to mom, because she has to eat, has to survive, in spite of the fact that baby is in shock because of mom's toxic body or because she was separated from mom at birth.

It is apparent that few researchers understand the stress model, how trauma effects the prenate and newborn or how consciousness functions in the prenate and newborn. (Castellino, 2000) Attachment and bonding may occur out of love and nurturement or as a result of trauma. Trauma is often a profound precursor to bonding/attachment. Bessel van der Kolk (1989) and Peter Levine (1995) call this "trauma bonding." Trauma bonding is not healthy bonding. In trauma bonding a traumatic experience and all the sensory memories associated with the experience are

over coupled or compressed with the contact of the people involved. This is what often happens in war. Trauma bonding is the essential element in most movies. Boy meets and saves girl during a horrific experience. They fall in love. Trauma can also be bound in the attachment experience of a newborn.

I believe that when trauma bonding is present, the mother's and baby's systems will have greater levels of stress hormones rather than oxytocin and endorphins.

Umbilical Affect

Umbilical affect is a concept first introduced by Francis Mott which was defined as the "feeling state of the fetus as brought about by blood reaching him through the umbilical vein" (quoted in Maret, '97, p.23). Through the work of -Lake ('81), Farrant ('86), Emerson ('99) and Menzam ('02) the meaning of umbilical affect in the pre and perinatal health and psychology field has expanded.

The word 'umbilical' refers to the umbilical cord. The American Heritage Dictionary defines the word, 'affect' with two different definition listings. Both definitions are applicable:

- To have an influence on or effect a change in. To act on the emotions or touch or move.
- In psychology. a. A feeling or emotion as distinguished from cognition, thought, or action. b. A strong feeling having active consequences.

Thus, when we look at the processes that have to do with the development and function of the umbilical cord and connecting to and separating from mother, we are looking at:

- The influences and changes these processes have on the developing person's whole being from preconception through what Stan Grof calls the 'fourth trimester,' the post birth newborn period.
- The expression of affect or strong emotions that the person has resulting from separating from and connecting with mother

Umbilical affect is used to include all the processes of separation, attaching, bonding, making physiologic, emotional and psychological connection, nutritional and waste exchange, and nurturement between mother and prenate. Umbilical affect has strong influences on the establishment and assertion of personal power and building and maintaining healthy personal boundaries for ourselves and with others.

The umbilical affect process has its roots in the conception journey. It is recapitulated during the implantation process and discovery process. It is further recapitulated immediately after the baby is born.

Umbilical affect and recapitulation cycles/dynamics

During prenatal time umbilical affect dynamics includes implantation, the formation of the placenta, umbilical cord, and circulatory system as well as the mechanisms for nutritional exchange and waste removal between baby and mother. One of the primary recapitulation cycles of the umbilical affect process occurs from implantation through the discovery process (when the parents discover they are pregnant). This appears especially so from day 8 through day 26 of the embryonic period. This is the period from the beginning of implantation, development of the placenta, umbilical cord, germ layers, primitive streak, the anterior axis of the primitive streak, notochord spinal column, the posterior axis of the ventricles and central canal of the spinal cord and completes with embryonic folding.

The next major recapitulation cycle occurs immediately after birth. How the neonate births, leaves her mother's womb and reconnects with her outside the womb has profound imprinting effects on the baby's future. At birth umbilical dynamics appear to be most profoundly influenced by three major processes:

1. What happens to the baby after her head is born and the cord is cut including the full array of medical procedures that are performed and the effects these processes and procedures have on the baby.
2. The corresponding changes in the direction of energetic fiery spiral patterns as defined in the Polarity Paradigm (this is more fully discussed later in these notes); the circulatory system including the heart and the direction of blood flow in the body (Castellino, ''95).

The sequence of events and movement patterns the baby completes in order to move from inside mom to outside mom and any obstructions to the baby's inborn motivation to move her way to her mother's breast and self-attach.

The connection with and separation from mother are strongly influenced by the person's preconception dynamics. By perceiving 'COEX' systems and recapitulation relationships of the umbilical affect matrix the practitioner's ability to manage the facilitation process is greatly enhanced.

Parents' preconception dynamics
The care, love and preparation preconception parents make for their impending pregnancy predetermines the reception the incoming consciousness will receive. The preparedness of preconception parents affects the degree of separation the consciousness has to face at conception. When preconception parents prepare themselves by exploring and resolving their own prenatal and birth issues and consciously love each other in the knowledge that they may become parents, the conception journey and implantation can occur with the incoming consciousness in full connection with the other side and the source. If preconception parents are making love with each other without the conscious awareness that new life may result, with the intent to avoid being pregnant, or under the influence of drugs, alcohol or tobacco, the

conception journey is profoundly affected. Trauma and shock to the incoming consciousness easily result.

The net effect is that the consciousness is separated prematurely from its connection to the other side. This fundamental separation from source then:

- clouds the implantation process;
- will be recapitulated when the couple discovers they are pregnant;
- will be imprinted into the baby's physical/somatic structure at birth;
- will replayed again to some degree every time the baby nurses or is fed unless the pattern is repatterned.

Righard's delivery self-attachment and Castellino / Jackson's supported attachment

During birth, the baby is moving from the inside to the outside. If the baby is conscious, untraumatized and immediately placed on her mother's abdomen, she will naturally begin to activate her body, move to and find her mother's breast, attach to the nipple and suck. Dr. Lennart Righard, a pediatrician from Sweden, calls this process 'self-attachment.' Dr. McCarty and I observed during therapy sessions with several babies that they would naturally seek mom's breast and suckle immediately after a birth resimulation session. I have since observed this pattern in most babies. Trauma, or breaks in continuity during birth and especially during stage four affect the baby's innate ability to find her way to breast, attach and suck. The therapy provides a place for them to complete the imprinted process.

Midwife, Mary Jackson reports the same phenomena. Where non traumatized babies demonstrate that the ability to find their way to the breast. We call the process of what the baby, mom and family do from the moment of birth to attaching at the breast, "Supported Attachment." We coined the term "supported attachment," because for the baby to form secure attachments with mom, family and to establish breastfeeding, we find that it takes several layers of support. We no longer use the Righard's term, "self attachment." Mary has all of the families that come into her Midwifery practice add some layers of support to the traditional home birth midwifery practice. These include: Sessions, in addition to traditional prenatal care, with the families before and after birth; a revolutionary support system for the midwife and professional birthing team; and a method of support for the mother and baby immediately after birth. A unique element of the "supported attachment" work is how the baby and family are supported to do repair when there is unresolved trauma from the birth or pregnancy.

Birth is primarily an exogenous involutionary process. If the outlet dynamics for the baby are traumatic, the baby may not be able to distinguish the inside from the outside. The degree of trauma is important to consider. If the baby in any way dissociates during the process, she will not have the ability to know that she has made it. The baby's inability to know that she is outside and to orient invariably contribute to 'self-attachment' dysfunction.

In his article, "Preventing Violence or Developing the Capacity to Love," Dr. Michel Odent describes how the role of the hormone oxytocin affects the ability of the mother to attach to, love and care for her baby. Odent calls oxytocin the love hormone. For a long time, we have known that oxytocin secreted during labor causes uterine contractions. Odent points out that more recently it has come to be understood that oxytocin is present in male and female orgasms, and during lactation as well. Any form of separation of mother and child during birth or during the perinatal period interrupts the attachment / bonding cycle for both mother and child. (Later in this article I will discuss more about bonding and oxytocin.)

Birth stages

Emerson and Sills looked at the perinatal period from the point of view of the baby or the passenger. As we will discuss in Module 3, in the cranial molding/birth stages portion of the training, four stages logically appear when considering birth from the baby's point of view.

- Stage one begins as the baby's head descends into the pelvic inlet.
- Stage two happens as the baby's head proceeds through the mid pelvis.
- Stage three is the birth of the baby's head though the pelvic outlet structures.

According to Emerson and Sills, stage four begins just after the head is born and continues until the initial medical interventions are completed. This includes restitution, birth of the body, clearing the airways, cutting the cord, drops in the eyes, bathing the baby, pediatric interventions, including heal sticks for blood, vaccinations, circumcision, and the stay in the neonatal nursery or NICU. This can be a period of 48 hours to several weeks or months depending on the extent of the interventions and the medical needs of the baby. According to Emerson, stage four recapitulates the developmental stages from preconception through discovery. Stage four also recapitulates and is a summation of the previous three birth stages.

Medical professionals typically divide labor into two periods, prodromal labor or 'false' labor and 'true' labor. In the initial stages of labor, often called 'false' labor, the mother's cervix progresses through several stages:

1 The cervix softens or ripens.
2 The cervix changes position. It moves from the back of the birth canal to the front.
3 The cervix then thins out or effaces.
4 Lastly, the cervix opens or dilates.

Many birthing professionals do not consider labor to be 'true' until the cervix begins to dilate. Other indications that birth is progressing are rotation of the baby's head and the baby descending into and through the birth canal.

Traditional obstetrics also divides labor into four stages (Oxorn - Foote pp. 114-151 or Reeder, Martin and Koniak pp. 458-469). So that we are clear on the differences for the prenatal and birth trauma resolution work, Emerson and Sills defined the four stages in terms of the baby's perspective and the relationship between the baby and the mother. Here is an overview of the

four obstetrical stages. These obstetrical stages are from the point of view of the obstetrician and the mother.

- Stage one begins with the onset of 'true labor' and lasts until the mother's cervix is fully dilated.
- Stage two begins with full dilation 10 cm and is completed when the baby is born.
- Stage three begins with the birth of the baby and is complete when the placenta begins to birth.
- Stage four begins with the delivery of the placenta and is completed when the postpartum condition of the 'patient' is stabilized.

In the 1970's, many theorists began to consider the period after the baby was born to be the fourth stage. They looked at attachment, bonding, and mostly focused on the mother-child relationship and the mother's needs. Here we are looking at stage four (according to Emerson) in reference to the baby's experience.

Following is an overview of stage four for vaginal births, including a discussion of umbilical affect recapitulation dynamics from preconception through stage four, an introduction to bonding and attachment issues and treatment strategies for umbilical affect, bonding/attachment and nursing dynamics.

Umbilical affect summary chart

The following chart is a summary overview of the stage four recapitulation dynamics. This is what happens when trauma interrupts the normal bonding process. While the chart is an oversimplification, it can give you a concept of how the recapitulation cycles occur. Notice the cycles of leaving, separation, connection and separation as the process proceeds from preconception to discovery.

Stage Four Recapitulation Dynamics

	trauma impact	**trimester**	**birth stage**	**stage 4**
preconception	consciousness with the other side / negotiation to leave / cast out of paradise	pre 1st trimester	pre stage one before labor begins	pre birth of the head in stage three
conception / tube journey	separation	1st trimester	stage one	restitution through birth of body
implantation	umbilical affect bonding/attachment	2nd trimester	stage two	cutting the cord
Discovery	betrayal / isolation bonding/attachment	3rd trimester	stage three	any medical procedure which interrupts bonding / baby to nursery or NICU

Stage four birth sequence.

Following is an overview of the stage four sequence in a vaginal delivery. Variations occur with different birth settings and birthing styles. This description includes traumatic interventions that have been common in West Obstetric practices.

1. Presentation of the head and face. Eyes wiped. Suction, clearing the airways, nose and throat.
2. Restitution - obstetric hands - they may lead or follow. If the hands lead, they interrupt the fetal/maternal flow and thus constitute a trauma. If they follow, the fetal/maternal flow there is no interruption. Rotation of the cervical spine. The fetal head turns to align with her body.
3. Anterior shoulder conjunct maternal pubic symphysis. Shoulder dystocia. Obstetric hands may laterally traction the head toward the maternal sacrum to free the fetal anterior shoulder from the mother's pubic symphysis. Leading causes trauma. The birth of the anterior shoulder can cause fracture of the clavicle.
4. Posterior shoulder. Obstetric hands which laterally traction the head toward the maternal pubic symphysis to free the posterior shoulder may cause cervical trauma.
5. Birth of the body. In normal vaginal births, the amnionic fluid is naturally squeezed from the lungs and airways. In a fully natural setting, healthy babies do not need suctioning to clear the airways.
6. The umbilical cord. The cord is tied or clamped and cut. In the 30s and 40s they used to wait until the cord stopped pulsing. This would allow the newborn to receive an additional 100 cc's of blood. In the 1940's it was thought that early tying and cutting of the cord was tantamount to submitting the newborn to the effects of hemorrhage by preventing the newborn from having substantially more RBCs and hemoglobin. This is a practice that was largely discarded in the 50's, 60's and 70's due to the belief that waiting to cut the cord caused bilirubin problems. Two ligatures are tied to the cord, one 1/2 inch from the newborn abdomen, the other 2" in the direction of the placenta (De Lee and Greenhill, pp. 278-279). In the last decade and a half, many midwives allow the cord to stop pulsing before clamping and cutting. In routine hospital birth the cord is clamped and cut often within 30 seconds of the birth of the baby's body.
7. Baby inverted and spanked. Traditional slapping to shock the baby into breathing. Some babies begin breathing just after the head is born and during restitution. Fortunately, this practice has been discontinued in recent decades.
8. Placing baby to breast. Eye contact and first colostrum. Touch, visual bonding and nourishment. It is crucial for initial bonding that mom and baby be awake, present and making eye contact. Depending on the length of the umbilical cord, this step may happen before or after the cord is cut. We will look at this process in depth. If the baby is born untraumatized or with little trauma, is alert and placed on the mother's belly, in 20 minutes time the baby will begin to move herself to her mother's breast, 'self-attach' and nurse (Lennart Righard). In the BEBA project and in About Connections, we have learned from several babies during treatment that after completing a self attachment movement they naturally want to show their story and go to the breast. Castellino and Jackson now call this process, "supported attachment."
9. Pediatric interventions: physical examination, measuring/weighing. Prophylactic antibiotics to the eyes, to prevent blindness from gonorrhea and other infection. Until the 1980s, silver nitrate was routinely used for about 100 years. Silver nitrate was discontinued

because it often caused chemical conjunctivitis and is not effective against Chlamydia. Chlamydia is a venereal disease that can cause opthalmia neonatorum (blindness due to venereal disease of the mother at birth). Tetracycline and erythromycin ointments have replaced silver nitrate. Sticking heal for laboratory blood tests, PKU, blood sugar, etc.
10. The first bath.
11. Isolation in the nursery.

Other Interventions:
1. Circumcision (Circumcision will be covered in M5, Surgical Interventions)

2. Other investigative examinations and procedures, either exploratory or as part of a treatment protocol e.g. spinal taps, blood work, treatment for high bilirubin.

Assessing the Neonate—Transition from Birth Shock

Introduction

Shock imprinting results from any event that overwhelms an individual spiritually, psychologically, physiologically and/or structurally. Unless resolved, shock imprinting will impact one on all levels throughout their life. Trauma and shock imprinting overlay and interrupt access to the primary self, psychological development, learning abilities, sensory and motor function, autonomic and organ function, proprioception, balance, coordinate function and structural integrity. Resolution of pre- and peri-natal shock imprinting occurs when shock imprinting is transformed to allow the person unimpeded access to his or her primary being and integrated functioning of their organism. Prenatal and Birth Therapy provides people of all ages, including infants, the unique opportunity to heal and resolve prenatal and birth trauma and shock.

Shock from the pre- and peri-natal period clearly affects the neonate on the imprinting level. Generally, it takes a baby about 3 weeks to emerge from a shock affect state after birth. Some babies can take three months and longer. Emerging out of shock affect, however, does not mean the baby heals the shock trauma. Most babies emerge from the shock affect period by developing survival and compensation habits that are directly influenced by shock imprinting.

In this paper, the newborn period is defined as the time a neonate takes to transition from shock affect behaviors. Non-traumatized or trauma-resolved babies do not demonstrate shock affect behaviors. Most babies, however, demonstrate affective shock behaviors through physiologic, physical and emotional patterns immediately after birth and for several weeks.

Assessment: medical model

Several neonatal examination and assessment tools have been developed. The more widely used medical and pediatric examination tools include physiologic, physical and neurologic assessment. Well-known tools are the Dubowitz Scoring System and Ballard's scoring system for arriving at gestational age and the Brazelton Neonatal Behavioral Assessment Scale. (Reeder, Martin and Koniak, chapter 29) I recommend that all prenatal and birth therapists become knowledgeable about these assessment systems so as to effectively converse with medical caregivers.

The problem with most developmental studies and assessment tools is that they were developed and used in hospital and medical center environments. Most studies and developmental norms are therefore based on babies that were born in hospitals. Interventions and diagnostic procedures are commonly traumatizing for infants and their parents. The behaviors of babies that are born in hospitals and traumatized by interventions and procedures have thus become the basis for what is considered 'normal.'

It is our hypothesis that the current infant developmental norms are based on traumatized populations, not on non-traumatized or trauma-resolved populations. Later in this paper, lists of

characteristics, behaviors and abilities of the non-traumatized neonate and shock affect characteristics in neonates are presented.

Assessment: infant-centered approach

The medical evaluation systems are indeed useful. However, they do not account for the long-term effects of shock imprinting on the newborn. Moreover medical tests can, in themselves, be invasive. In BEBA we use and are working to develop non-invasive assessment tools that are infant and child centered.

One goal of the Prenatal and Birth Therapy is to resolve prenatal and birth shock imprinting. This approach is infant centered. The baby is more important than assessment scales and assessment processes. All therapeutic interactions are to be conducted with the baby's permission and the parents' protection of the baby. The practitioner needs to develop contact, trust and rapport with the baby and with the parents. The practitioner's responsibility is to advocate for the baby and educate the parents.

In assessing a baby, the Prenatal and Birth Therapist observes and acknowledges the neonate's:

- pacing cues, or tracking the baby's tempo
- attention responses (the direction he moves his attention to the external world and how he withdraws his attention away from the external world),
- states of consciousness,
- movement patterns,
- reflex behaviors,
- musculoskeletal tonality and tonal changes from hypotonic to hypertonic,
- verbal expressions (murmurs, coos, giggles, different crying states),
- facial expressions and
- postural preferences.

Acknowledging the baby

Practitioner, caretaker or parent acknowledgments may be verbal, empathic and/or physical. Practitioners' acknowledgment responses, particularly emotional reflective responses are modulated to accommodate the neonate's ability to integrate them. For example, a baby may be in a concentrated state and experimenting with new behavior by picking up an object or turning himself over. The unmodulated excitement of attending adults may distract the baby, thus interrupting the continuity of the baby's concentration and movement pattern. Modulating practitioner responses will be discussed below under the heading, "The importance of negotiating distance and boundaries."

The practitioner also attends to the neonate's environmental needs, especially with respect to room temperature, need for covering, ambient and sound levels in the room, ambient and direct light in the room. Room conditions are monitored to support the infant to discover a state of present relaxation.

All therapeutic interactions are done with gentle verbal forewarnings to the infant, acknowledging their responses and soliciting their active cooperation. This principle is so important that it holds true even if emergency care is needed or the baby appears asleep or unconscious.

Characteristics, behaviors and abilities of the non-traumatized neonate

Non-traumatized neonates demonstrate the following characteristics, abilities and behaviors:

- Eyes are clear and present
- Eyes coordinate normal convergence
- Ability to orient to visual, auditory and tactile stimuli
- Ability to smoothly move from one sensory stimuli to another without breaks in movement continuity
- General balanced tonicity throughout the body
- Appropriate homeostatic autonomic responses to stimuli (i.e., if the light changes, the pupils will respond in kind; if activity demands change, respiratory and pulse responses will meet the demand
- Moro or startle response is present with clear and present danger only
- Movements of the extremities are smooth and without breaks in continuity
- Smooth trunk movements of the body in flexion, extension, lateral flexion and rotation movements at will
- Accurate proprioception (she knows where she is in space)
- Strong sucking response
- Holds head up and turns head from side to side to orient at will
- Balanced cervical and suboccipital muscle tone
- Absence of shaking or tremors
- Deliberate response to near or direct touch
- Matches gentle tactile pressure with extremities, head or trunk of body
- Crying corresponds to need
- Able to cry with full range of sounds and emotional content
- Able to differentiate emotional expressions
- Enjoys experimenting with movements, sounds and expressions
- Body positions and movement patterns do not interrupt ability to orient
- Vibrant skin color
- Chooses to make contact deliberately
- Voluntarily moves attention from inside to outside
- Shows interest in new experience
- Voluntarily grasps
- Moves to mom's breast, latches on and feeds
- Shows clear self attachment behaviors

Subtle energetic, fluid tide and cranial characteristics of non-traumatized neonates are:

- Full palpable energy field with distinct clear boundaries
- Free flow of vital energy throughout the body
- Round, full cranium, absence of cranial molding
- Full strong potency of vital fluid tides
- Full fluid tide inspiration and expiration patterns with appropriate physiologic reciprocity
- Easy expansion and contraction of the cranial field within normal physiologic movement patterns
- Able to meet stress with appropriate energetic fluid responses, lateral fluctuations, and still points

Gross observable shock affect indicators are:

- Glossy eyes
- Eyes do not converge normally, but cross or split
- Total or partial inability to orient to visual, auditory and tactile stimuli
- Generalized or body area specific hypotonicity
- Hypersensitivity
- Involuntary changes in autonomic responses including pulse, respiratory rate, skin color changes, pupil changes in the eye
- Moro response or startle response to sound or movement
- Jerking movements of extremities
- Inability to hold head up
- Hypermobility of neck, especially at occipital-atlantal junction
- Involuntary shaking or tremors
- Tactile sensitivity to near or direct touch
- Total or partial inability to match gentle pressure from direct touch with extremities, head or trunk of body
- Weak, hollow or empty crying sounds
- High pitched crying sounds
- Crying inconsolably, getting lost in her emotions without ability to make visual, auditory or tactile contact
- Frequent crying without apparent reason
- Lack of skin color
- Total or partial absence of alertness during awake states
- Withdrawal sleep to light, sound or movement sensory stimulation
- Lack of responsiveness
- Inability to voluntarily shuttle attention from inside to outside or outside to inside
- Inability to grasp

Subtle energetic fluid tide and cranial shock affect indicators are:

- Weak energy field without clear boundaries

- Erratic energy field patterns
- Counterclockwise umbilical pattern
- Unresolved cranial molding
- Unresolved postural patterns
- Weak potency within vital fluid tide
- Total or partial inability of fluid tide potency to build
- Long weak still points
- Stops in the fluid tide patterns
- Cranial strain patterns and non-physiologic cranial movement patterns

Breaks in the continuity of movement: a response to shock

Every expression and movement a newborn makes has purpose. Babies do not do anything without purpose. Breaks in the continuity of movement patterns are obvious and easy to identify. Obvious movement patterns that demonstrate breaks in the neonate's integral continuity are jerky movements. When these jerky movements are present, the baby's nervous system is unable to deliver an integrated motor signal in a consistent even flow from their neocortex. Non-traumatized babies, including neonates, are observed to move their limbs and body in even continuous patterns.

Muscle tone change in response to shock

Muscle tone, body and extremity movements factor together in the process of emerging from the shock affect period. Hypotonicity in any muscle layer is indicative of preceding shock trauma. Hypotonicity at the occipital atlantal junction has been positively correlated with sudden infant death syndrome (SIDS) (Schneier and Burns). The degree of hypotonicity present correlates to the degree of shock the neonate has experienced. Movement patterns and interruptions in movement patterns are also indicative of previous shock experience. As babies grow, increases in size, weight and muscle tone will compensate for the unresolved shock affect patterns in their bodies. The increased muscle tone will override and mask the underlying discontinuity in the motor impulses resulting in movements that appear smooth but are actually not fully coordinated.

Parents, caregivers and healthcare practitioners will often mistakenly assume that babies have grown out of the shock affect period because the jerky movement patterns and other indicators like Moro reflexes have gone away. More often, it means the babies have learned to compensate for the shock trauma by developing survival strategies and behaviors. As babies gain muscle tone, they will necessarily have more physical sensations in their bodies.

The effect of increased sensation

The process of gaining muscle tone appears to equate with increased sensation. If the baby's hypotonicity is a result of shock trauma, the shock itself may cause the baby to be dissociated from body sensations. As the baby becomes more resourced, she recovers from the shock and begins to consciously inhabit her body more thus increasing the her awareness of sensation and

emotional feelings. At first, these feelings can be uncomfortable, painful and disorienting. Seemingly calm, quiet babies who were actually withdrawn may all of a sudden become irritable and inconsolable several weeks after their birth as they emerge from the neonatal shock affect period.

Crying, Comforting and Nursing for Comfort

Crying with contact

Many new parents have difficulty "letting" their babies cry. They may feel uncomfortable, ashamed or guilty and attempt to soothe them. Addressing the baby's need to cry and the parent's need to soothe is a very important aspect of therapy. Having parents identify, process and repattern their own feelings about their baby's need to cry can be helpful. Some practitioners adamantly insist that babies need to cry in order to discharge unresolved emotions. William Emerson, Peter Levine, Aletha Solter, Wendy McCarty and I all agree that an infant crying should be supported to maintain contact and not get lost in the emotions. We all agree that babies should not be left alone "to cry it out." When babies cry, I believe it is the primary caretaker's responsibility to rule out the most obvious reasons for crying, such as hunger, wet diapers, physical pain and discomfort. The primary caretaker is then responsible for maintaining visual, emotional and physical contact with the baby until the crying resolves.

Inappropriate nursing

If a mom is consistently using the breast to soothe her baby, then she may be giving the baby the message that it is not OK to cry. This process can result in fetal therapist (Emerson) inclinations in the baby. The baby may be inclined to take care of the emotions of the mom and other primary caregivers. If the mother nurses the baby for her (the mother's) own comfort, then the baby becomes the mother's emotional caretaker. Or, the mother may have unresolved feelings of guilt that come from previous generations, her own personal unresolved issues, and/or from traumatic events that occurred during pregnancy and birth. She may then over-compensate by attempting to subdue the baby's cries when the baby needs to cry. These, I believe, are primary confusing factors for babies that can potentially lead to dysfunctional behavior such as eating and sleeping disorders in the future.

Some nursing support professionals counsel new parents to be careful not to mix feeding with satisfying the baby's need for comfort. They state that it is best to nurse only when the baby is hungry. These practitioners hold the view that the purpose of breastfeeding is for eating. Breastfeeding, they feel, should not be used to soothe the baby. In their view, babies should be encouraged to manage their emotions with different resources other than at the breast. This strategy can be useful for babies who do not demonstrate shock affect behaviors or babies who have access to other resources to console themselves or be consoled by others. This strategy can be counterproductive for babies during the neonatal shock affect period.

More on why babies cry

I do agree, however, that it is not in the baby's best interest for mom to put the baby to breast in an effort to quiet her. When a baby cries, the cry has a purpose. Obvious indicators such as hunger, wet diapers, physical pain, etc. should be ruled out first. Aletha Solter points out that

babies need to cry to discharge stored feelings. I do not believe that discharging stored feelings by crying is an accurate description of the mechanism for the way crying helps heal trauma imprints. The discharge theory may explain a portion of the mechanism. Crying appears to be an expression of pain, need and overwhelming feelings, leading edges, breaks in continuity and disorientation. With babies as with adults, contact, safety, empathy, moving at tempos that encourage the autonomic nervous system to balance and attending to the baby's leading edge appear to be the primary mechanisms for healing.

In the BEBA Clinic, we encourage parents to be authentic with their own feelings, to differentiate their feelings and to discover the ability to go to a state of quiet presence within themselves. We work with parents to name their own feelings, and their perception of their baby's feelings as accurately as they can. As parents develop and demonstrate these skills, their babies are more able to express deep felt emotions with contact and allow themselves to be consoled and attach to their parents.

Parents are also taught to recognize when a baby is showing their birth pattern. Birth patterned expressions follow a sequence that involves birth movements, self attachment behaviors and attaching at the breast. Crying and deep emotional expression may or may not be present. In this context the baby needs to go to breast or relax deeply into his/her mother in order to complete the cycle. These sequences appear to be biological imperatives for the baby and perhaps also for the mother.

In this context, consolation does not interfere with the baby's ability or need to cry to express emotions and felt needs. This is in contrast to the mother who habitually puts the baby to breast because she is uncomfortable in herself with her baby's need to cry.

Consolation especially important in establishing resources

Shock affect often inhibits access to consolation and contact. Babies with shock affect behaviors often cry inconsolably and will appear to cry themselves to sleep. It is my observation that this is not sleep at all. These babies may actually be crying themselves into a dissociated shock withdrawal state that appears to be sleep. It is essential to take into account that, during the shock process, different emotional sets are compressed together (Levine). This means the baby will experience several emotions and sensations that at least cause confusion and at most can cause the psyche to compartmentalize this condensed experience or split. (Levine and others report that adults with post traumatic stress symptoms often compartmentalize emotional states or aspects of themselves as a survival strategy.)

In the BEBA Clinic, we worked with a baby who was born at home, was hypotonic at birth with weak respiration and poor neurological signs. This baby was separated from his mother, transported to the hospital with his father in an ambulance and spent three days in a NICU. In our opinion, this baby did not have the resources to separate out all of his complicated emotions and compressed experiences. This baby's energy and physiological systems were dissipated and weak. His basic system was not strong. He exhibited hypotonicity in the neck and atlantal-occipital junction, which rendered him a candidate for SIDS (Schneier and Burns). In this and similar cases, we feel that nursing for comfort and, more importantly, connection is a very

appropriate approach. Confusing feeding with consolation should not be a consideration in this case and others like it. The first thing is to establish the resources.

The challenge for mothers

Once the baby's resources for contact and consolation are established, a new mother may find it challenging to learn not to use nursing to quiet her baby instead of listening, reflecting and making contact with the baby while she is expressing difficult feelings.

My daughter, Sasha was breastfed for four years. She did not experience shock trauma at her birth. She had access to the breast on demand for feeding, comfort and consolation. In addition, she nursed regularly to go to sleep and upon waking. Sasha never appeared confused between sucking for comfort and sucking for nutrients. She was also supported to fully express her emotions in the context of contact with her mother, her older brother and myself. The breast was not used to get her to stop crying. When she cried, she experienced contact and support. Often that included nursing and/or holding.

All of her life, Sasha has been very clear about whether she is hungry or not hungry, sleepy or not sleepy. She does not associate eating with charged emotional states or with going to sleep or waking up. She sleeps when she is tired, regardless of what other people in the house are doing. She has no eating confusion. She knows which foods she likes and what she doesn't like. It is very easy for her to make healthy eating choices. If she wants to eat chocolate cake, she can eat it. She doesn't feel deprived when she sees others eating something like a chocolate cake and she doesn't want it. Today, she is free to make her own choices with the ability to evaluate the consequences of her decisions.

Why crying must be done with contact

There is no question in my mind that babies need to cry with contact. Any time a baby's expression is met by parental disregard, confusion, frustration and attempts to distract the baby who needs to express any feeling, this exacerbates the baby's hitting and crying behaviors especially at the breast. Babies should not be left in a dissociated cry. In my experience, dissociated crying is usually connected to what I call shock affect behavior. Crying does not always fully discharge stored old business, trauma or shock trauma. Dissociated crying can recapitulate shock trauma and not resolve it. Babies and adults who have experienced pre- or peri-natal shock trauma may habituate cathartic behavior that, over time, weakens the neuroendocrine system They can habituate cathartic behavior as easily as they can habituate nursing for comfort. At the same time, babies need to cry and have their feelings heard. Aletha Solter has many excellent suggestions with regards to babies crying.

A baby I referred to in my paper, "Being With Newborns," was in my and Dr. Wendy McCarty's estimation a candidate for SIDS. The work that she and I did with that baby and his family did not in any way thwart his need to cry. We worked with him in a way so that he had the physical and emotional resources to be able to go into those deep feelings and stay associated in his body in very profound ways. He expressed his rage and grief about being separated from his mother for over 24 hours after his birth. He was born at home and did not breath for about 6 minutes

after his birth and was transported to a hospital NICU in an ambulance. The resolution he and his parents came to was extraordinary.

Other ways of discharging shock or shock affect trauma

There are many somatic ways of discharging shock trauma or shock affect charge other than just through the emotional system and crying. Shock trauma impacts the whole energy system and nervous system. Shock trauma primarily impacts the brainstem and cerebellum and governs survival mechanisms.

Crying is an emotional expression that is primarily connected to midbrain and limbic functions. The emotional system is mediated by the midbrain, which includes the limbic system and the autonomic nervous system. Though crying is an important means of expressing needs and discharging trauma imprinting, it does not always clear the brainstem where shock trauma resides.

There are ways to help resolve shock trauma imprinting somatically that support babies to emerge free of the shock imprinting that can be done while they sleep, are in a quiet restful state or in active alert states. For example, in the Caregivers' paper and in the video of Skyler's therapy of his parents telling his birth story while he is sleeping. By having gentle contact with his sacrum and low back, I was able to track his fluid tides, umbilical energetic spiral, autonomic cycling and discharge waves while his parents spoke. We further observed that his breathing rate, sucking rate (without nursing) and body movements changed in harmonic resonance with his parents as they told the story.

When babies and their mothers have resolved much of their birth shock affect trauma, the babies clearly nurse for nutrition and do not need to nurse for comfort. If they do nurse for comfort sometimes, they do not habituate nursing for comfort.

The "Delivery Self Attachment" work of Lennart Righard, MD, [Dept. Pediatrics, University of Lund, Malmo General Hospital, Sweden, clearly shows the behavior of unmedicated vaginally born untraumatized babies. When placed on their mom's bellies immediately after birth, these babies rest about 20 minutes, then begin to work their way to the breast, latch on and suck. The whole process takes about 50 minutes.

In the BEBA clinic, we have made an exquisite landmark discovery while working to resolve pre- and peri-natal trauma with babies. In the BEBA therapy, babies work through trauma imprinting or breaks in continuity that resulted from their births. Remember that, in a normal vaginal delivery, the baby engages her mom's pelvic structures, passes through the birth canal, is born, and then, as demonstrated by Righard, if relatively untraumatized and left on the mother's belly will naturally find her way to the breast, attach and suck. In therapy with babies we do the following:

1. Establish quiet presence with the babies.
2. Encourage gentle activation pushing from the baby. This stimulates the baby's inborn birth movements.

3. The baby then continues the movement of her actual birth. She appears to be born.
4. When the baby completes a cycle of birth simulation movements, she naturally seeks the breast. Scooting motions, gestures toward mom's breast and rooting behaviors, exemplify this.

At this point, we have seen several babies do many different behaviors. Most notably they make contact with their mothers physically, emotionally and visually. In essence they are attaching and bonding with their mothers.

In these therapeutic situations, the babies initiate movements, and the whole energy of the situation takes them to breast. It feels to us that there are several needs being met at the same time, including establishing or repatterning self-attachment trauma, comfort and completing the critically important biological, somatic and emotional sequences of events that establish healthy bonding. We are teaching parents to work with their babies this way. This is done the context of doing little portions of the work at a time (Levine uses the term titration) so that the central nervous system including the autonomic nervous system and brainstem can reestablish breaks in physical, emotional and mental continuity. We do not encourage parents to distract their babies from crying. We teach parents to meet their babies with connected reflection that supports them to consciously enter and occupy their bodies. Conception and birth are embodiment processes.

Physical injury from excessive crying

Excessive crying in hurt babies can easily recapitulate the shock trauma and add insult to injury. In fact, Gene Cranston Anderson, RN, Ph.D., in a study called "Risk in Mother - Infant Separation Postbirth," (Anderson, 1989), indicates babies can be physically injured and experience brain damage from excessive crying immediately after birth. Anderson states, ". . . crying . . . resembles the adult Valsalva maneuver . . ." The Valsalva maneuver is often used during birth. Mothers are instructed to take a deep breath, bear down and push. The mother then takes a chest cavity breath, holds her breath and pushes down. From our pre- and peri-natal imprinting perspective, the babies that Anderson is describing may be recapitulating behavior imprinted from their mothers holding their breath and pushing in a Valsalva's position during birth. Anderson suggests a mechanism for the cause of the baby's brain damage from excessive crying. He says that babies' excessive crying obstructs venous return in the inferior vena cava and reestablishes fetal [as opposed to newborn] circulation within the heart. Each time the strain phase of a cry is released, poorly oxygenated blood flows through the foramen ovale and back into the systemic circulation rather than into the lungs . Venous return is obstructed in the superior vena cava also, increasing cerebral blood volume and decreasing cerebral oxygenation in the fluctuating pattern. Similar patterns of blood flow may occur during a startle. A fluctuating pattern of cerebral blood flow is associated with intracranial hemorrhage in preterm infants. Full term infants are vulnerable to intracranial hemorrhage during the transitional newborn period. In one general newborn nursery, these hemorrhages were documented on sonogram by 72 hours post birth in 16 (3%) of 505 asymptomatic and otherwise apparently healthy infants. This could be a mechanism whereby minimal learning disabilities and cerebral palsy develop in infants who seem healthy at birth.

In BEBA, we treated an eight-month-old baby whose mother brought the baby to the pediatrician for an earache. The baby cried so hard while the pediatrician examined his ears that the capillary vessels were visibly broken across his forehead.

Therapeutic principles for responding to babies, including when they are crying

I do not mean to imply that if babies cry for long periods of time that they will automatically incur brain damage. Care must be taken that the baby is sufficiently resourced. Following are the therapeutic principles that we follow in the BEBA clinic with regards to babies' crying:

1. Acknowledge what is.
2. Track yourself. At what tempo are your internal rhythms moving? If you are speeding up, acknowledge that within yourself or out loud. Slow your own pace or tempo down. If you are able to, track the fluid tides, either the preferably the long tide. The fluid tides are the core rhythms within. They act as carrier waves or baseline waves for overlying trauma imprinting. (The fluid tides will be described later in this chapter.)
3. Verbally acknowledge the baby's expression. Use simple words that obviously and accurately describe her behavior or emotion. This skill requires practice to fully develop.
4. Keep visual and verbal contact with the baby. If the baby closes her eyes acknowledge her choice to do so. When she open her eyes to look at you, thank her for doing so. The object is to provide the baby with the safety and space to express herself within the context of having contact.
5. Have contact with your own feelings. As appropriate, share your empathy with the baby. Watch. Modulate your empathy so as to support the baby to explore her therapeutic edge.
6. If the baby appears to approach going into overwhelm or lose her ability to orient, take breaks, change the pace or tempo, change the activity so the baby can re-orient before going back to exploring the therapeutic edge.

In BEBA we train parents to develop these same skills. In this way, parents are able to use these skills outside the therapy environment and transfer them to their lives in general.

Nursing dynamics

Before the baby latches on and suckles, the baby demonstrates behaviors that I view as a pre-nursing dance. During this pre-nursing period, I believe that the baby and mom show a recapitulation pattern of the umbilical affect dynamic from preconception through discovery. Babies with unresolved birth stress or trauma will have difficulty making their way to mom's breast. They may fuss, sometimes hit mom's breast, look away, cling to mom, cry, be restless, bite mom's nipple, begin to nurse, then let go of the breast. When a mom is able to hear what her baby is saying, reassure the baby, continue to relax within and genuinely accept where the baby is, we believe this will support the baby to be able to complete communication and relax into the warm nurturement of nursing.

I once watched a new baby with a first-time mom. The baby was born by cesarean section. This little boy was very agitated. Mom was unsure of herself, having feelings of failure and concern about her inability to nurse her baby. As I watched the struggle between them and tracked the baby, I kept bringing my attention back into myself, relaxing. Every time he moved toward mom's breast and relaxed a little, I coached with a relaxed, assuring voice, "That's right. . . keep going." Every time he became agitated, with the same assurance and neutral voice, I acknowledged the feeling or made a verbal observance in the most obvious simple terms I could. When he turned his head away, I simply said, "Turning away." Or, when he hit mom's breast I reflected, "Hitting mom's breast." The power of tracking a baby in this way is extraordinary. This baby boy, little by little, over the next several minutes calmed and relaxed into mom's breast and successfully nursed for the first time in his life.

While I am tracking I am silently acknowledging the coex matrix of the baby's umbilical affect trauma. In this case, I watched his posturing and could see his difficulty; I saw how fast he was separated from mom and how abrupt the cutting of his cord was. While I watched and listened, I modulated my empathy for him so that I could maintain easy connection. As he relaxed, he was able to connect with his mother and then nurse. I reassured, and gently coached mom so that she could feel the effect of her own listening and relaxing. I have been privileged to witness many moms and babies begin to overcome nursing difficulties in this way.

I believe that it is not appropriate for moms to routinely nurse to soothe their babies. In this case the problem is with the parents. It is the parents, not the babies, who are having a difficult time with the baby's feelings.

Differentiating or 'owning' your own feelings

We have long observed that babies often reflect their mother's and/or father's present time internal agitation or un-owned feelings. The problem is not that the mother or father is upset, it is that the parent is unable to be present with him or herself or their own feelings. The baby reflects the parent's behavior overtly or covertly with a compensation survival behavior.

We see babies routinely calm and become present when the parents accurately identify and responsibly "own" their feelings. The place these parents are coming from and how they express their feelings seems to be the key. We find that, as parents learn to accurately identify pre-and peri-natal influences, it becomes easier for them and their babies to share and clear emotions in constructive, healing and empathic ways.

David Chamberlain uses the phrase " Babies Remember Their Birth". The way babies remember and express their memory is as much somatic (with their bodies) as it is emotional. When we perceive babies' energetic, movement, cranial molding and emotional patterns in the light of prenatal and birth imprinting, we can identify when and to what degree babies are manifesting behavior that is influenced by pre-natal life and birth experience.

Developing parents' skills

We have also seen that parents need to develop the same kind of skills that we are exemplifying. That is, we all need to stay in present time empathy with a baby in distress - meeting them with our presence. Babies also need their parents to reflect clear emotional resources to them. Parents may lose themselves because their babies are crying. The babies may be expressing their own pain or reflecting the parents' unconscious emotional states. When the parents begin to lose themselves and/or if the baby appears to be cycling in her own or the parents' emotional material, then the baby is more likely to go into a dissociated catharsis and lose herself. I think, in these instances, it is better for the parent to find some way of soothing the baby and themselves like bouncing on one of those great exercise balls, changing the environment, taking a bath and or perhaps even nursing. In any case, it is important for the parent to differentiate their emotions verbally.

The protocol sequence I follow is:

1. To acknowledge what is happening. Make differentiating statements to the baby like, "I feel sad just now and you do not have to do anything about that.2. Find support from other friends, family or therapist.

3. Learn and exemplify orienting skills.

The most important thing is for the parents to find that relaxed quiet place in themselves. When the parents is able to establish that quiet connected presence within themselves, they are much more resourced and able to track or hold presence when their babies need to cry for long periods of time or deeply. Again, in this context, nursing does not become habituated for comfort.

Treating The Neonate During The Shock Affect Period

The importance of negotiating distance and boundaries

Neonates in the shock affect period are often hyper-responsive to outside energy including the intentionality of people around them. Allan Shore identifies this period as the first three months of life. He point out research that indicates the amygdala in the medical temporal lobe of the right brain is "online" during that time. (Shore, 2001). In BEBA we have observed that babies who experience little trauma or are supported to resolve the traumatic impacts move out of this period sooner than 3 months after birth. My synthesis of the neurobiological and nervous system developmental model for healthy infant attachment is explored in the M2 training and will added to this chapter at a later date.

Practitioners must learn to monitor their own intentionality and observe when and how a baby reacts to the energetic tension fields originating from the practitioner. The practitioner, parent or caregiver may, out of concern, move her attention toward the neonate. This has the potential to create an energetic pressure on the neonate that stimulates an overwhelm, or shock affect response in the baby.

A practitioner must first negotiate distance and boundaries with his intention so he can know the parameters of what the baby can accept. Once this is accomplished, the practitioner will be able to intentionally track the baby's energetic patterns, fluid tides, emotional and autonomic responses, physiologic and physical patterns. This kind of tracking will reflect baby's subtle movement patterns in a way that affirms her presence and the choices she makes for her consciousness and her body. This reflective affirmation process on the intentional level increases the baby's ability to know for herself her individuated felt sense and sense of safety within the environment. When she is truly not safe, she will communicate that lack of safety by motioning for support and making sounds that elicit support from caregivers (a baby's way to ask for help).

Strategies for establishing contact through touch or near touch

Parents, caregivers and health care practitioners need to know that the process of coming out of the shock affect neonatal period can be painful. As the babies comes out of shock affect, they become increasingly aware of their bodies. It is a process of coming into their bodies. The process of coming out of the shock affect period is multilayered. Practitioners must titrate this process. If babies come out too fast, they will be shocked into their bodies. This is the problem with hanging babies upside down and spanking them at their births (a procedure discontinued for about 20 years).

A conscious process is necessary to establish the contact, safety and rapport that allow the practitioner to develop a primary therapeutic relationship with the baby. Babies need to be forewarned of any therapeutic intervention, no matter how gentle the intervention appears. The same care needs to be taken when establishing near or direct touch with the neonate, whether the baby appears awake or asleep.

A useful strategy in establishing contact with a neonate who is demonstrating mild shock affect behavior is to first watch her movements. Observe her move an arm toward you or to her side. Note the degree of jerkiness or weakness in the movement. Put your hand out as an offering and allow her to choose to come to you. In this way the babies initiates the contact. Then follow the infant. As the baby makes contact with you, the presence of your relaxed, open, stable hand supports him to experience stable movements with the extremity that you are following.

In contrast, if the practitioner or caregiver moves his hand toward the baby, especially if the hand is inadvertently moving toward a trauma site, he will more than likely stimulate a reactive response in the baby Such stimulation can often activate an infant into her trauma and recapitulate her preexisting trauma. This can happen especially if the practitioner is moving fast His hand will move through energetic boundaries, thus activating trauma memories in the infant.

My preference is to observe a baby's movement patterns first. Then I simply put my hand at the edge of the baby's movement pattern so that she contacts my hand as she continues his movements.

Babies mediate their sensory world

Watch what the baby does with her consciousness in relationship to outside input. Is the baby capable of moving her consciousness or attention toward the outside input? Does she move her attention visually, auditorally or kinesthetically? Watch her on all three of these planes. The outside input is typically over-stimulating to a baby with shock imprinting.

A baby can't really stop outside sound. However, she can shield herself visually, by moving the muscles of her eyes or eyelids or by moving her head. She can look away from overwhelming stimuli or she can close her eyes. She may close her eyes when there is too much light, to cut out the stimuli and to have some control over it. She may also close her eyes in an attempt to ward off overwhelming mental/emotional or psychic intention from others. The eyes are said to be windows to the soul. By watching a baby's eyes, the trained practitioner can observe where the baby is placing her attention in time and space, and note if the baby is withdrawing from a stimuli or moving her attention toward a stimuli. Neonatal overwhelm can impede an infant's ability to orient to space or to primary caregivers. Moreover, neonatal overwhelm can impede the infant's ability to realize how to observe, show interest and make contact with her world.

Babies can even move away from another person or overwhelming outside stimuli. For example, if you move your hand toward a baby, she may move her arm away or turn her body away if she doesn't want to be touched. The contraction wave that moves through the tissues as an intentional moving away from a stimuli starts on the inside and moves to the outer layers because the contraction is a motor response.

If the baby doesn't physically move away but just withdraws her attention from the stimuli, the practitioner will see or feel an energetic and/or tissue contraction wave move from the outside inward. You can experience this in yourself by slowly and intentionally pulling your attention inward and mildly resisting the withdrawal at the same time. This can feel like a slight sinking in the body. The resistance you create will amplify the sensation of withdrawing your attention.

Practitioner interventions

Following are suggested therapeutic interventions for approaching the neonate demonstrating shock affect:

1. Track the baby's energetic and autonomic responses.
2. Verbally acknowledge what she is doing and give her permission. The practitioner may make statements like, "Oh, going in. That's right."
3. Suggest the notion that she is making a choice. The practitioner statement might then be, "Oh, going in. That's right. It is a choice."
4. Change the environment. If it is too bright, dim it. If it is too loud, lower the volume. If it is too tactilely coarse, give the baby softer textures.
5. Slow the pace down by relaxing, slowing your own energetic, autonomic responses and voice.

Oxytocin / artificial oxytocin and bonding

Michael Odent discusses the role of the natural hormone oxytocin in establishing healthy nursing patterns and bonding. Odent refers to oxytocin as an "altruistic love hormone." He says that women, babies and men all produce oxytocin. (Odent, *The Sientification of Love,* 2001) This hormone is not only responsible for labor contractions. Oxytocin is also present during lactation and sexual orgasm. It is even present in mother's milk. Normally these sensations are associated with endorphin hormone responses, the body's natural opiates, of extreme pleasure. These pleasure sensations can be imprinted, confused with or replaced by sensations associated with pain from trauma, especially birth trauma.

The use of artificial oxytocin will be discussed in the chapter on chemical interventions. Information on it is included here because the impact on mother and baby of artificial oxytocin is totally different than that of human oxytocin. Artificial oxytocin adversely affects both baby and mother, often causes traumatic and shock imprints and interferes with healthy bonding and attachment.

There is evidence that the use of artificial oxytocin to initiate or assist labor confuses babies' natural rhythmic responses with their mothers. The May 5, 1996 edition of *Newsweek* magazine reports the work of Dr. Hollander, a psychiatrist who has found that a high number of autistic children that he treated received artificial oxytocin (in Europe, Syntocinon, or Synoxytocin) or Pitocin at birth.

Trauma from artificial oxytocin has several primary signature behaviors that help the practitioner identify oxytocin in adults, children and babies. These behaviors may be observed in the person's emotional behavior and or physical movement patterns. They are:

- Jackhammer movements. The person may initiate moments rapidly.
- The person may often use more force to complete a movement than is necessary.
- The person may begin a project with relative ease then all of a sudden experience sudden intense drive and then lose it again.
- The person may have periods of intense energy, feeling strong and then feel no energy at all.
- Nursing difficulties. The baby and mother may have difficulty establishing quiet presence with each other and rhythms that facilitate connection.
- The rhythms of the person's communication patterns may easily be out of synchronicity with others.
- The person has difficulty knowing beginnings and endings. From others' perspectives, this person will just keep going and not realize that others are ready to move on to another subject or project.

Skills and Treatment Model

When umbilical affect becomes the focus during a client's therapy (infant, child, teen or adult), the practitioner can support the therapeutic process with six primary skills and four treatment strategies.

The six primary skills are:

1. Establishing child and parent resources, tracking resources and connecting resources with energy stored from imprinted umbilical affect trauma.
2. Establishing boundaries and enough containment and contact with the client to facilitate practitioner and family safety, and, to allow for exploration of the child's and parent's 'therapeutic edge.'
3. Facilitating the client's emotional expression, so that they can maintain self awareness and contact with others present. With babies this includes working with the baby's crying dynamics and dissociation dynamics.
4. Tracking and reflecting the client's pacing, tempo and primary rhythmic patterns. Tracking tempo primarily includes the overall speed the client moves and speaks at, and the fluid tide rhythmic levels. In relationship to the client, the practitioner modulates his own internal rhythmic patterns. Slowing the tempo down and tracking the fluid tides of mother and baby are primary skills to cultivate when working with attachment and nursing difficulties.
5. Verbally expressing and modulating empathy with the client.
6. Differentiating between the newborn shock affect period and the emergence into full present embodiment.

The five treatment strategies will be explained in the class. In brief, they are:

1. Balancing the umbilical energetic patterns.
2. Training the baby, mom and dad to anchor into their primary fluid tides, especially the longitudinal tides and the long tides.
3. Exploring the therapeutic edge of making energetic and physical contact with the forehead as implantation imprint site, energetic and body movement patterns.
4. Establishing the baby's ability to mobilize her body and emotional system, re-establishing continuity in breaks in movement, moving through breaks in continuity, re-establishing awareness where there are breaks in proprioception, establishing fluid movement from inside to outside, and, re-establishing motivation and the ability to self-attach.
5. Supporting the connection between baby and parents.

Balancing the umbilical energetic patterns:

When and how the umbilical cord is cut can have profound influences on umbilical affect imprinting and how the baby experiences separation. The higher the trauma impact, the more likely the baby will recapitulate the unresolved umbilical affect behaviors. Prior to birth, the

baby's circulatory system is receiving oxygen and nutrient from her mother. The direction is from the outside in. This is a centripetal process. During fetal life, the lungs do not receive oxygen from the environment. The prenate's body receives oxygen via the umbilicus and the blood portal system through the liver, not from the lungs via the heart. When the baby takes her first breath, the umbilical energetic system changes direction. The first breath signifies that the baby is separating from her mother. After the first breath, the baby's body is oxygenated from the lungs via the heart and the arterial system. The body's umbilical energy system changes its direction in a way that reflects the changes in the oxygenation distribution in the blood. (See the charts that show the changes in the circulatory system from fetal life to post birth located in Netter p. 270, Myles p. 55 or Larson pp. 194 - 195.) The direction after birth is from the inside out. This is a centrifugal process.

The central energetics of the umbilical affect dynamics are mediated by the 'fiery' guna, Rajas. Remember that the rajasic energetic patterns are described by Dr. Stone to be spiral patterns that emanate from the umbilical level (the navel and spinal cord level, L2-L3). The Rajas fiery guna governs human psychological motivations and provides the primary power for physical movement.

In the energetic body, the "fiery" or "rajas guna" reflects the changes occurring after birth. The umbilical fiery spirals can be palpated around the umbilicus (navel) and L2, L3 in the back. If your client of any age is manifesting prenatal material, the umbilical spiral will rotate in a counterclockwise direction. The counterclockwise direction will manifest in the front and/or the back. These spiral energies can generally be palpated off the client's body from several inches to a few feet. See Dr. Stone, Volume Two, 25 Charts #2, #3 and #4. (p. 180-182) for the Polarity graphics of the umbilical spiral currents.

The more unresolved trauma a person has in this area, the less able they will be able to tolerate your attention, energetic or direct touch in this area.

Here is one strategy that will allow you to begin to work with these fiery spiral energies:

1. Establish where the client's resources are. Slow the pace or tempo down within the client's tolerance so they can orient.
2. Tell the client what you are going to do in advance. Move your hand from several feet away toward their umbilicus. Establish the client's therapeutic edge and comfort distance. If you are in touch with the energetic field, you will feel a slight pressure under your hands.
3. Let your hand float in the field and wait. Facing the client, the spiral energy will either rotate clockwise or counterclockwise. If the spiral energy rotates counterclockwise, it indicates that the material the person is accessing has prenatal origins. If the spiral energy rotates clockwise, it indicates that the client is accessing postnatal material.
4. Stay with the energy. Sometimes, if you take your hand closer to the umbilicus, it will be more emotionally stimulating to the person. Work with your client's leading edge. If you slow the pace and track your client, they the spiral energy will find it's own balance.
5. When the session is over, the spiral will often seem to fill and gently push or whisk your hand away.

With babies I will check in with the spiral energy several times during a session to monitor how the baby is progressing. The first time you check, make a mental note as to the quality, strength and direction of the spiral current. As prenatal affect imprinting clears, the spiral energy will strengthen and move into a clockwise direction.

Ignition of the Fluid System at Conception and Birth

Sills ('01) describes a process of ignition that first occurs at conception, when the Ordering Principle of the universe is manifest within the conceptus - spirally in centripetal and centrifugal action within the fluids and bioelectric field of the single cell of the conceptus. This field is carried in the Long Tide, not bound by the physical body, but what originally generates its organization and the expression of a midline axis (Jealous, '97; Becker, '97. There is a later ignition process at birth where potency literally ignites within the cerebrospinal fluid as the infant leaves the womb and enters the outside world. This is a final empowerment to take form within the human realm (Sills, '01, p. 70; Sutherland,'90, p.108).

When a baby experiences a traumatic birth, drugs, caesarean section, and/or immediate medical interventions this ignition process can be interfered with. The result is an inertial potency throughout the fluid system as the baby attempts to deal with the traumatic forces and toxins encountered. This will in turn prevent a complete ignition of the fluid system at birth and will lock potency and fluid up in centering the traumatic forces. Sutural compressions or medial compression of the cranial base that seems intransigent are often the effect of birth shock. These types of cranial compressions are indicated as a factor in childhood learning difficulties (Sills, '01. p 341).

Training mother and baby to anchor into their primary fluid tides

Tracking fluid tides is a primary skill to cultivate. The fluid tides are the core rhythmic oscillations that sustain life in all living beings. Sills and Castellino find that learning to track the fluid tides is a profound skill to influence the healing of attachment and bonding trauma. In the tradition of William Garner Sutherland, Franklin Sills has defined three primal levels of fluid tides. They are the "longitudinal tide," the "long tide" and the slow expansion tide. These tides are the primal carrier waves upon which overlying information is imprinted. This discussion is limited to applications of tracking the longitudinal tide and the long tide.

- The **"longitudinal tide"** flows up and down the long axis of the body in cycles of 8 to 14 times per minute at about at 4 to 8 second cycles. Adults have fewer cycles per minute than babies.
  - In adults, the longitudinal tide is slower, about 8 to 12 cycles per minute with a range of 5-8 seconds per cycle. At 8 cycles/min these a 8 second cycles; at 12 cycles/min, these are 5 seconds cycles.
  - In infants, it is faster about 12 to 14 times per minute which would be 5 and 4 seconds per cycle respectively.
- The "**potency tide"** oscillates about three times a minute at about 20 seconds cycles.

- The **"long tide"** oscillates in approximately 100-second cycles to 2 1/2-minute cycles in both babies and adults. The "long tide" is a slow, steady movement that expands in centrifugal manner from the inside out and toward the center from in a centripetal manner from the out side in. These appear to be primary slow oscillating expansion and contraction movements. I don't really like to use the word "contraction" because it can be taken to indicate a "tense contracted" state.

The following 4 paragraphs were added in 2016 regarding the long tide expansion and contraction in family units and small groups.

For decades I have observed that the 100 second long tide movement seems to be observable in practitioner / client dyad cranial / sacral and energetic bodywork sessions. However, when I sit with families or small groups that achieve a harmonic resonant field within the family or the small group, the rhythm of the tide appears much slower, more at two and ½ minute cycles. In about 2012 I began calling this slower two and ½ minute oscillation the "Social Tide" or Social "Nervous System Tide." I have become convinced that this "Social Tide" oscillation is the key rhythm for the optimal growth and function of prenates', babies' and children's nervous systems.

The slower 2 ½ minute Social Tide seems to be most apparent when our attention is on the energy of the relationship between the members of the family or the group. Here are a few steps that may help in learning how to perceive the Long and Social Tides. It will take a small group of three or four people to do this exercise:

1. Come to center. Establish awareness of your own mid-space. The exercise, "Mother Earth, Father Sky" can be employed to do this. Notice and let the sensations of centering register in your awareness.
2. Staying with the centering sensations, shift your attention to include another person. This includes you as part of a dyad. This is the most frequent relationship that practitioners have when they are working with one other person. If you relax and continue in a mindful manner, as you come more and more into harmonic resonance with each other, you will both settle more. This process can take you into awareness of the 100 second Long Tide.
3. Now return back to awareness of your own center and mid-space. Re-anchor yourself in relationship to yourself. Have awareness of the sensations of centering.
4. Staying with the sensations of centering, Have an intention to include in your awareness the other people in your group. Stay with your energetic awareness of yourself. What changes for you when you include the others? What happens when you give attention to the energy between the people in the group?

It is in step 4 that you have greater opportunity to be aware of the 2 ½ minute Social Tide. I experience this as a deepening and settling sensation in the tempo of the rhythm, a deep easy settling in the energy field and deeper sense of relaxation.

I believe that the long tide moves in conjunction with the sympathetic and parasympathetic branches of the autonomic nervous system. I believe that, as the ANS moves into more optimal homeostasis, the ANS will move toward 2 1/2-minute cycles. When a baby and mother are in harmonic resonance, they will cycle in the long tide at the same time. Furthermore, it is my observation that the "social nervous system" (Porges, 2001) functions in a resonant overtone hierarchy with the long tide in these slow oscillating cycles.

As you learn to track the fluid tides, please have patience with yourself. By simply centering yourself, quieting, slowing your internal rhythms and then just waiting, will most efficiently accomplish learning to track the fluid tides. The tides will present themselves to you as you wait and hold presence. If you look for them, the tension of the looking can easily interfere with your awareness. Dr. Stone said that it took him ten years to develop his touch awareness skills to his satisfaction. It personally took me two years to learn how to consistently track these tides and 10 years to feel confident with my touch awareness.

Remember that the physical body is the conductor of the life force and the fluid tides. Awareness of the fluid tides can be established on several different levels. Two of the most fundamental levels to experience the tides are:

- The practitioner senses or experiences the tides as they are expressed through body tissue and structures. This level is primarily sensed through the proprioceptive system of the body and the nervous system.
- The practitioner senses or experiences the tides on an energetic level within the tide itself, not influenced by body tissue or structures. This level is sensed through a more direct perception of subtle energy fields.

The fluid tides are influenced by prenatal and birth imprinting in two significant ways:

1. The physical body, emotional imprinting, and trauma imprinting offer resistance to the movement of the fluid tides and influence or alter the fluid tide behavior. This resistance gives rise to:
   - Still points for the purpose of resourcing and building fluid tide potency within the body.
   - Lateral fluctuations for the purpose of reorganizing and establishing more efficiency in the fluid tide flow.
   - Stops in the fluid tides, to point out breaks in continuity and shock trauma imprinting.
   - Shutdowns in the fluid tides. Shut downs are stronger, less subtle forms of a stop. Shutdowns are indicative of shock imprinting on the system.

2. In their pure essence, without resistance, the fluid tides are carrier waves. A carrier wave is an electromagnetic wave form designed to carry information imprinted or overlaid on to it. A carrier wave does not have breaks in continuity. It is the trauma overlay patterns, that the carrier wave carries, that may have breaks in continuity. The fluid tides are continuous free-flowing waves that carry information. This information is imprinted or overlaid onto the carrier wave from other influences: ancestral tendencies, familial talents, emotional patterns, and trauma. The volume of overlay patterns will

> reach a drowning out threshold. When the drowning out threshold is reached, the individual loses his ability to have contact with the carrier wave aspect of himself and with his life force simply because the overlay patterns are making too much noise.

There are some overlying patterns that are in harmonic dissonance and other overlying patterns that are in harmonic resonance. The dissonant overlying patterns are more apt to have conflict and double-bind emotional and somatic patterns. The harmonic resonant overlying patterns are more likely to be resourceful and supportive of the person's being.

Moreover, just giving attention to the longitudinal and the long tides is likely to be tremendously resourcing! These tidal rhythms are core to relaxation, healthy functioning of the autonomic nervous system, bonding, the sharing of nurturement, the receiving of nutrient, and digestion and assimilation.

Umbilical affect trauma causes dissonant overlays that increase tension in the abdomen, around the umbilicus. If the tension reaches the visceral level, digestion and assimilation can be adversely effected. Umbilical affect tension often radiates to the low back and over time can lead to compression of the lower lumbar discs, especially L5 - S1, and L4 - L5.

These dissonant patterns in some instances can be coupled or compressed with the long tide. In this case, the person's compensation and survival pattern may be to speed the tempo up. Resistance to slowing the tempo down needs to be appreciated and respected. Working with an adult or a baby at their leading edge faster tempos may be an important step to support a person to uncouple and repattern these dissonant overlays on the long tide.

Learning how to distinguish between or to differentiate the carrier wave rhythms and the sensations from overlay patterns is a very useful tool. Differentiating helps establish and increase:

- awareness,
- presence within oneself,
- concentration,
- the ability to focus one's attention and
- mental, emotional and physical choices.

It becomes easier to become spontaneous and make choices that enrich our own life and the lives of others.

Nursing and bonding treatment strategies

Following is a treatment strategy we found very helpful for babies and moms who are having difficulty attaching and bonding and establishing nurturing nursing patterns.

1. Assess the mother's and baby's tempo. Notice if they are internally going too fast to access the fluid tides. Keeping your attention with the baby, match the mom's rhythm. Have fun with them. Gradually slow yourself down to a pace that the mom

and baby can integrate. The baby or mom may express some feelings. Keep contact with them.

2. With permission from the mom, place you hand on her upper back. Track her. When you both get in synchronization, ask her to keep her attention with her baby and give the baby energetic distance at the same time.
3. Ask her to continue to keep her attention with her baby and to let herself slow down with you. Verbally acknowledge when the fluid tides become apparent and full. In this way, you are teaching her to become aware of her and her baby's fluid tides. As they come into relaxed resonance with each other, have mom describe in sensate language her felt sense.
4. Keep tracking and reflecting their process so they can find that place within themselves. Have mom share her feelings with her baby. If possible, support them to make eye contact. If they keep eye contact, that is excellent. If the baby or mom closes their eyes, ask them to check in with each other visually by opening their eyes occasionally. Have mom acknowledge and reflect the baby's feelings.
5. Have them practice this process at home.

With the above process, the practitioner is training the mom and baby to access the core fluid tides underneath overlying imprinted patterns.

The pericardium

A second approach utilizing awareness of the fluid tides can be employed by itself or added to either tracking the umbilical energy spiral patterns or to the above sequence. This involves working with the pericardium. The pericardium is the connective tissue sack that surrounds the heart. The pericardium is attached to the underside of the cranium, descends downward in front of the spine through the neck, and surrounds the heart. It looks much like a humming bird's nest. The pericardium originates embryonically from the mesoderm germ layer situated at the bottom of the primitive streak. It is evident in the early days of pregnancy.

Remember that, in the Polarity paradigm, umbilical affect trauma affects the primary movement patterns that emerge from the rajasic, fiery guna. These are the primary movements that take place in the anterior to posterior, front to back plane. i.e., forward bending and back bending. Forward bending takes place around the umbilicus. Back bending takes place around L2-3 vertebral levels.

Adverse tension in the abdomen will cause a person to slump forward at the shoulders and chest, thus causing pressure to be put on the heart and respiratory diaphragm. Simultaneously, any tension on the pericardium will increase this tendency. These patterns have their origin in early pregnancy especially around the times of implantation and discovery. Tension on the pericardium often reflects emotional loss, grief, expectation anxiety and tension from unattained dreams or desires. Tension in and around the heart or heart chakra inhibits sensory awareness in the hands and arms. This is significant for any practitioner who uses their hands as a vehicle for healing. Dr. Randolph Stone used to say that the hands are the expressers of the heart.

Remember the side view picture of the fetus at four weeks with its newly developed heart. (See Lennart Nilsson, *A Child is Born, The Completely New Addition,* p 79.)

This **pericardium support strategy** can be used with babies and adults alike.

1. Establish felt sense contact with the client's long or longitudinal fluid tides.
2. Visualize the pericardium in you mind's eye. As you look at it in your mind's eye, feel the fluid tides.
3. Synchronize your felt sense of the fluid tides with your vision of the pericardium in your mind's eye. As you develop this skill, you will be able to imagine your client's pericardium in living motion. Do not let the beating of the heart override your attention on the fluid tides.
4. Take one hand, turn it with the palm upward. Imagine that you are taking you hand and very gently lifting from underneath the heart and pericardium to just begin to take tension off the pericardium.
5. Observe the baby's responses. If your client is an adult, ask them to describe the felt sense of their experience. Again have them use sensate words, like "warm, spreading, quieting, relaxing, etc."

The Umbilical Current Exercise

Purpose:

This exercise is designed to establish a sensation base for tracking energy into and out of a center and for palpating the directional spiral of the Umbilical Current.

Background information:

The Dr. Randolph Stone's in his Polarity Paradigm defined three primary etheric energy fields in and around the human body. The attributes of these three energy fields are called the three Gunas: Satva, Rajas and Tamas. The energy field we focus on for the umbilical current exercise comes form the Rajas Guna.

- Satva [the neutral airy pole of the three], provides the impetus for the central nervous system. It moves through the central core of the caduceus up and down the spinal cord out of the crown of the head and the bottom of the body's trunk and the feet to spiral around the body from the bottom to the top and from the top to the bottom. On the outside of the body, energies move around the lateral axis of the body, right to left and left to right. Dr. Stone called these the East – West Transverse Currents.

- Rajas [the positive fiery pole], provides the impetus for the inside to outside heat and motivational energies of the body. This energy field has its center at the level of the umbilicus at L2 – 3 and spirals in the front and back of the body. In the prenate, the fire energy physically comes into the body via the umbilical cord. In the prenate, the energy spirals from the outside toward the center in a counterclockwise direction.

  After the baby begins to breath and the umbilical cord in clamped and cut, it takes from 10 to 15 hours for the physical changes of the body to take place. The foramen ovale in the mid atrio-ventricular septum closes. The blood vessels that exclusively supported prenatal life are no longer needed for blood transport. They are obliterated and transformed into ligaments. During that time, the Rajas energy system reverses its direction from counterclockwise to clockwise.

  When the practitioner palpates the umbilical spiral, if the direction of the turn is in a counterclockwise direction, it indicates the possibility that the client is processing something related to prenatal time.

  Conversely, if the direction of the umbilical spiral is in a clockwise direction, it indicates the possibility that the client is processing something related to postnatal time.

- Tamas [the negative watery pole], provides the attractive receptive pull for the reflective return current from the outside in. The tamasic energy field provides the

impetus for physical form and structure. It moves through the core of the body through the caduceus and chakra system and forms the shape of a torus or a donut. Dr. Stone describes the tamasic energy fields as five lines of force on each side of the body's anterior – posterior midline. These lines of force move in a gyroscopic action around the body. The right side the gyroscope move up the back and down the front of the body. The left side of the gyroscope moves down the back and up the front of the body. From both sides, if you look from the outside in, the gyroscopic movement proceeds in a clockwise direction.

During the M2 Bonding and Attachment training module there were 7 basic sets of sensations and support that we worked with in sequence through the training module. These sensations are to be observed in the client. Yet, if the practitioner and the client are in an entrained state with awareness they will both have opportunity to enjoy the sensations consistent with each phase of the exercise.

Seven sets of sensations and support are:

1. Settling and spreading through the body from the top down / inside out. This sensation corresponds to the activation of the parasympathetic nervous system, the balancing of the autonomic nervous system, and the long tide.
2. Subtle field energetic lifting support from the beneath the diaphragm, pericardium and heart. Remember the feather lift from below. This helps take the tension off the prevertebral and pretrachial connective tissue tracks that suspend from the base of the cranium, connect with the pericardium and holds the heart. The sensation for the client is the sense of a gentile lift from the front in the anterior superior to inferior axis of the body.
3. Direct physical support to the low back in the area of S2 to L3. Where the support is placed is dependent on where the client needs it. Low back support gives the client the opportunity to pick up the sensations of an upward lift that comes from the sacrum and rises through the posterior axis in the superior /inferior plane of the body. If that rising is followed up the back it will fountain out of the top of the head beginning in the upper thoracic area just above the thoracic apex.
4. Direct physical and light energetic contact to the thoracic apex behind the heart. This contact gives attention to congestion often found in the posterior pericardium and the area between the heart and the spinal column. This contact can help open the breath and the flow of energy into the arms and hands. The client often reports increased ease of breathing, increased awareness into the upper extremities especially the hands.
5. Direct physical support to the forehead as the client bends forward toward the fetal posture. Giving this support may bring to the practitioner's mind eye embryonic images from the late implantation period of 21 to 26 days. In order for this intervention to be optimal it often best if the client receives this support when they are actually ready to let down and relax into the support.
6. Energetic palpation of the umbilical current front and back. The umbilical current is palpated off the body from the front and the back. Practitioner holds their open hand in front umbilicus and the other hand behind the umbilicus at spinal level L2 – L3. In each case, front and back the umbilical current will turn or spiral in a counter clock wise

direction if the client is accessing prenatal material and in clock wise direction if the client is accessing postnatal material. As the client's system becomes more congruent there is increased relaxation in the system through out.

7. Radiating heat from the umbilical center outward in all directions is often reported by the client.

Umbilical Energy / Affect Tracking Exercise

This exercise can be performed as a self exercise or it can be done with a partner.

- In the standing position, orient: Mother earth, Father sky. Establish awareness of the sensation of settling and spreading and the long tide.

- As your head begins to come forward in the A-P plane think a feather lift under your heart and pericardium. Catch the beginning of the lift.

- Remember the sensation of support at your low back or have some one give you physical support S-1 to L-3. Again catch the sensations of the beginning of the lift. And, catch the sensations settling and spreading.

- Shift your attention to hand and arms. Have your hand face each other. Begin to play with the sensations between your hands. As you get aware of the sensations between your hands notice that others are playing with the sensations between their hands also and stay aware of your own sensations.

- Begin to play energy catch with one another. When the energy catch game begins to settle notice the oval shape between your hands.

- Assign a front and back to the oval energy shape. Hold the energy shape from side to side. Pay attention to your sensations as you hold the energy shape from side to side.

- Shift your hands to the front and back of the shape. Pay attention to how the sensations change in your hands, arms and body. Sometimes one may be able pick up the sensations of the direction the umbilical current is rotating.

- Move one your hands from the oval shape in space to the area in front of your umbilicus. Sometimes one can notice the direction of the umbilical current here. Do this exercise with a partner. Palpate the current in front of the umbilicus and from behind the back at spinal level L3-4. Sometimes you may be able to pick up the direction the umbilical current is rotating. Notice how the front and back are different or similar.

New Hope

Reason for hope in a new age for parenting and healthy babies.

In April 1996, the BEBA Clinic had its first potluck get together. Twelve families attended with children ranging in age from six months to four years. None of us had ever been to a gathering with so many children where the atmosphere for exploration, play and enriched contact with others was so evident. Parents were naturally and for the most part effortlessly and accurately reflecting their children's communications and needs. The children played with each other as well as their parents and made exquisite contact with new people including adults. Only once during the three hour gathering did a child cry. That was because he wanted to go into the fishpond and her mother did not want him to get wet. The BEBA staff and other adults present were especially awestruck by these babies' and children's quality presence, ability to hold concentration, cooperation skills, social skills, grace of movement, fine and gross motor coordination, and ability to express their individual uniqueness.

There are several babies in the BEBA project that have used words and phrases at appropriate times and contexts at four and five months. One baby at seven months consistently said, "I go out!" when her mother and father would pick her up to go outside or leave the house. This same girl at five months consistently called her dog by name, "Delilah," a three-syllable word. We think that she understood those sounds before she said them. Verney and others cite clear research that speech development begins in the womb.

When caregivers and the environment are able to support the baby's ability to experience the felt sense (Levine) of that internal quiet, slow, warm, soothing, parasympathetic place, the baby will then be able to make the choice herself to come out of the shock affect period. This quiet slow way out of the shock affect period will allow the baby's nervous system to build the necessary sequences within for smooth connection from the brainstem, through the limbic system to the neocortex. Thus the baby's sensory motor integration, proprioception, balance, emotional and mental clarity will be free to function optimally without interruption from shock and trauma. Indeed, what we are seeing with the babies in the BEBA Clinic confirms William Emerson's assertion that resolving prenatal and birth trauma increases the capacity for healthy bonding and love.

Readings

These readings are largely supplemental to the information provided in these notes.
Oxorn and Foote, Human Labor and Birth,
Ch 5, pp. 136 - 151, "Clinical Course of Normal Labor"
Ch. 51, pp. 879 - 900, "The Newborn Infant"

Reed, Martin and Koniak, *Maternity Nursing*,
Ch. 10: Conception and Development of the Embryo and Fetus, pgs. 143-164.

Ch. 25: Immediate Care of the Newborn, pgs. 561-581.
Ch. 26: Biophysical Aspects of the Postpartum Period, Breasts, pgs. 591-594.
Chapter 27, pages 601-608,
- Transition to Parenthood
- Assumption of the Parental Role
- Influences on Parental Behavior

Ch. 29: Assessment of the Newborn, pgs. 641-680.
Ch. 30: Nursing Care of the Normal Newborn, pgs. 681-706.
Ch. 31: Sensory Enrichment With the Newborn, pgs. 707-727.
Chapter 32: Nutritional care of the infant. Especially read everything on breast feeding. pgs. 728-767.

Larsen, *Human Embryology*, (1993) Churchill Livingstone,
Chapter 1, page 13, Fig. 1-6, Folliculogenesis and ovulation Schematic
Chapter 2, pages 34-40, The Second Week
Chapter 3, page 52-59, Primitive streak to the neural plate

BIBLIOGRAPHY
Materials that I have drawn heavily on in this chapter are in BOLD type.

Behrman, *Nelson Textbook of Pediatrics*, 14th Edition, (1992) W.B. Saunders Company, Chapter 9, pages 427-29, 488-89 & Chapter18, page 1378

Castellino, R. (1995) "The Polarity Therapy Paradigm regarding Preconception, Prenatal and Birth Imprinting". Unpublished paper. 1105 N. Ontare, Santa Barbara, CA 93105. You have this paper as part of your M1 notes.

Castellino,R. with Takikawa, D. and Wood, S. (1997), "The Caregiver's Role in Birth and Newborn Self-Attachment Needs." Unpublished paper. 1105 N. Santa Barbara, CA 93105, You have this paper as part of your M2 notes.

Chitty, John, "Triune Autonomic Nervous System: Experimental Applications based on Cranial Osteopathy," 2002, Colorado School of Energy Studies, www.energyschool.com.

Cunningham, MacDonald, Gant, Leveno, Gilstrap, *Williams Obstetrics*, 19th Edition, (1993) Appleton and Lange, Chapter 14, pages 381-384

Larsen, *Human Embryology*, (1993) Churchill Livingstone, Inc., 650 Avenue of the Americas, NY. NY 10011

Levine, P. with Fredrick, A. *Waking the Tiger: Healing Trauma*. (1997), North Atlantic Books, Berkeley,CA.

Midwifery Today and Childbirth Education, *Special Breastfeeding Supplement,* P.O. Box 2672 Eugine, OR 97402, Telephone: 800 743-0974.

Oxorn - Foote, *Human Labor and Birth*, Fifth ed., (1985), Appleton and Lange, Chapter 5, pages 136-51 and Chapter 51, pages 879-900

Reed, Martin and Koniak, *Maternity Nursing*, 17th Edition, (1992) J.B. Lippincott Co., 227 E. Washington Square, Philadelphia, PA 19106

BONDING/ATTACHMENT/UMBILICAL AFFECT:

Ainsworth, M, Blehar, M., Waters, E., & Wall,S.,Pattern of attachment: A psychological study of the strange situation. 1978, Hillsdale, NJ: Erlbaum.

Anderson, Gene Cranston. "Risk in Mother-Infant Separation Postbirth," *Image: Journal of Nursing Scholarship*. 1989, 21, 4:196-198

Bowlby, John, *A Secure Base, Parent-Child Attachment and Healthy Development, 1988,* Basic Books, New York, New York.

Bowlby, John, *Attachment (volume 1, Attachment and Loss,* 1969, Second Edition 1982 with a new Foreward by Allan Schore 1999, Basic Books, New York, New York.

Condon, John T., Dunn, David J. "Nature and Determinants of Parent-to-Infant Attachment in the Early Postnatal Period," *Journal of American Academy Child Adolescent Psychiatry*. 1988, 27, 3:293-299

De Carvalho M., Klaus MH, Merkatz RB. "Frequency of breast-feeding and serum bilirubin concentration," *American Journal of Diseases of Children*, 1982 Aug, 136 (8):737-8

Emerson, William. Origins of Adversity: The Treatment of Prenatal and Perinatal shock. Petaluma CA: Emerson Training Seminars, 1999, (being prepared for publication, currently available to Emerson trainees only)

Farrant, G. "Cellular consciousness". Aesthema, 1986, 7, 28-39.

Field, Tiffany. "Interaction and Attachment in Normal and Atypical Infants," *Journal of Consulting and Clinical Psychology*. 1987, Vol. 55, No. 6, 853-859

Kennell JH, Klaus MH. "Early mother-infant contact. Effects on the mother and the infant," *Bulletin of the Menninger Clinic*, 1979 Jan, 43(1):69-78

Kennell JH, Klaus MH. "Mother-infant bonding: Weighing the evidence," *Developmental Review*, 1984 Sep, v4 (n3):275-282

Kennell JH, Trause MA, Klaus MH. "Evidence for a sensitive period in the human mother," *Ciba Foundation Symposium*, 1975 (33):87-101

Klaus MH, Kennell JH, Klaus PH, *Bonding: Building the Foundations of Secure Attachment and Independence*. 1995. Menlo Park, CA: Addison Wesley Publishing Company

Klaus, MH. "The biology of parent-to-infant attachment," *Birth & the Family Journal*, 1978 Winter, v5 (n4):200-203

Klaus MH, Trause MA, Kennell JH. "Does human maternal behavior after delivery show a characteristic pattern?" *Ciba Foundation Symposium*, 1975 (33):69-85

Lake, F. Tight Corners in Pastoral Counseling. 1981, Darton, Longman and Todd, London.

Levy, T. & Orlans, M. Attachment, Trauma, and Healing: Understanding and Treating Attachment Disorder in Children and Families. 1998, CWLA Press, Washington, DC.

Maret, S.M. "The prenatal person: Frank Lake's maternal-fetal distress syndrome. 1997, University Press of America, New York.

Menzam, C., Dancing Our Birth: Prenatal and Birth Themes and Symbols in Dance, Movement, Art, Dreams, Language, Myth, Ritual, Play, and Psychotherapy. Unpublished PHD. Thesis, the Union Instiute Graduate College, 2002.

Montagu, Ashley, *Touching, The Human Significance of the Skin,* (1986), Harper and Row Publishers, Inc., 10 East 53rd St., NY., NY 10022.

Myers, Barbara J., "Mother-Infant Bonding: Rejoinder to Kennell and Klaus," *Developmental Review*, 1984 Sep, v4 (n3):283-288.

Odent, Michel, *The Scientification of Love,* revised edition 2001, Free Association Books Limited, 57 Warren Street, London, England W1T 5NR.

Porges, S., "Orienting in a defensive world: Mammalian modifications of our evoluntionary heritage. A Polyvagal Theory". Psychophysiology, 1995, 32, 301-318. Cambridge University Press.

Porges, S., "The polyvagal theory: phylogenetic substrates of a social nervous system." International Journal of Psychophysiology, January 2001.

Righard, Lennart. VIDEO: "Delivery Self Attachment," Geddes Productions, 105346 McVine, Sunland CA 91040. Telephone: 818 951-2809.

Ringler NM, Kennell JH, Jarvella R, Navojosky BJ, Klaus MH. "Mother-to-child speech at 2 years - effects of early postnatal contact," *Journal of Pediatrics*, 1975 Jan, 86(1):141-4

Schore, A., *Affect Regulation and the Origin of the Self: The Neurobilogy of Emotional Development*. 1994, Erlbaum, Hillsdale, NJ. Especially read chapters 6 through 10.

NOTE: THE FOLLOWING THREE SCHORE ARTICLES, TWO OF THE PORGES AND VAN DER KOLK ARTICLES LISTED IN THIS BIBLIOGRAPHY ARE AVAILABLE AT www.trauma-pages.com by permission of the authors

Schore, A. "The Effects of a Secure Attachment Relationship on right Brain Development, Affect Regulation, and Infant Mental Health". Infant Mental Health Journal, 2001, 22, 7-66.

Schore, A. "The effects of Early Relational Trauma on Right Brain Development, Affect Regulation and Infant Mental Health". Infant Mental Health Journal, 2001, 22, 201-269.

Schore, A. "Dysregulation of the Right Brain: A Fundamental Mechanism of Traumatic Attachment and the Psychopathogenesis of Posttraumatic Stress Disorder". Australian and New Zealand Journal of Psychiatry, 2002, 36, 9-30.

Toney, Linnie. "The Effects of Holding the Newborn at Delivery on Paternal Bonding," *Nursing Research*. 1983 Jan/Feb, Vol. 32, No. 1

Van der Kolk, B., & Fisler, R., "Dissociation and the Fragmentary Nature of Traumatic memories: Overview and Exploratory Study." (1995) HRI Trauma Center, 221 Babcock Street, Brookline, MA 02146 and Harvard Medical School, Department of Psychiatry.

Van der Kolk, B., "The Body Keeps the Score: Memory and the evolving psychobiology of post traumatic stress." (1994) HRI Trauma Center, 221 Babcock Street, Brookline, MA 02146 and Harvard Medical School, Department of Psychiatry.

COSLEEPING:

Mothering Magazine, No. 98, January-February 2000 ran as series of articles on cosleeping. James McKenna is one of the leading sleep researcher in the U.S.

Jackson, D, "Three in a Bed," pp. 42-44
Fowler, J, "Foot in Your Face," pp. 45-47

McKenna, JJ, "In Defense of Infant-Mother Cosleeping," pp. 50-54
Nix, S, "Confessions of a Bed Lizard," pp. 48-50

***Mothering Magazine,* No. 114, September/October 2002 devotes the whole issue to Sleeping with Your Baby; the Worlds Top Scientists Speak Out. Thanks to Dara Kneer you have this issue as part of your M2 notes package.**

Pantley, Elizabeth, *The No-cry Sleep Solution,* 2002, Contemporary Books, McGraw Hill, New York, NY. You have exerts from this book in your M2 notes package, complements of the author.

NEWBORN STRESS:

Als H, Tronick E, Adamson L, Brazelton TB. "The Behavior of the Full-term but Underweight Newborn Infant," *Developmental Medicine and Child Neurology*. 1976, 18:590-602

Banks DB, Beck RW, Columbus M, Gold PM, Kinsinger FS, Laonde MA. "Sudden Infant Death Syndrome: A Literature Review with Chiropractic Implications," *Journal of Manipulative and Physiological Therapeutics*. 1987 October, 10(5):246-252

Becker, R. *Life in Motion*. 1997. Rudra Press, Portland, OR.

Begley S, Springen K. "Life in a Parallel World," *Newsweek*, 1996, May 13:70

Bonci AS, Wynne CD. "The Interface between Sudden Infant Death Syndrome and Chiropractic," *Journal of Chiropractic Research*. 1989 Spring, 3(3):78-780

Brazelton, T. Berry. "Crying and colic," *Infant Mental Health Journal*, 1990 Winter, v11 (n4):349-356

Brazelton, T. Berry. "Effect of Prenatal Drugs on the Behavior of the Neonate," *American Journal of Psychiatry*, 126:95-100, 1970

Brazelton, T. Berry. *Neonatal Behavioral Assessment Scale*. 1984. Philadelphia: J. B. Lippincott Co.

Brazelton, T. Berry. "Observations of the Neonate," *Journal of the American Academy of Child Psychiatry*. 1962, January I (1):285-305

Censullo M, Bowler R, Lester B, Brazelton TB. "An Instrument for the Measurement of Infant-Adult Synchrony," *Nursing Research*. 1987, July/August Vol. 36 (4):244-248

DiPietro JA, Hodgson DM, Costigan KA, Johnson RB. "Origins of Temperament." 1995. Reprints available: Janet DiPietro, Dept of Maternal & Child Health, The Johns Hopkins University, 624 N. Broadway, Baltimore, MD 21205

Field, Tiffany. "Neonatal Stress and Coping in Intensive Care," *Infant Mental Health Journal*, 11:57-65, 1990

Field, Tiffany. "Interaction and Attachment in Normal and Atypical Infants," *Journal of Consulting and Clinical Psychology*, 55:853-9, 1987

Gunnar MR, Connors J, Isesee J, Wall L. "Adrenocortical Activity and Behavioral Distress in Human Newborns," *Developmental Psychobiology*. 1988, 21(4):297-310

Isabella, Russell. "Origins of Maternal Role Satisfaction and Its Influences Upon Maternal Interactive Behavior and Infant-Mother Attachment," *Infant Behavior and Development*. 1994, (17):381-387

Jealous, J. "Healing and the Natural World, an Interview". Alternative Therapies. 1997, 3,1(January).

Kent C, Gentempo P. "Sudden Infant Death Syndrome and Chiropractic," *International Review of Chiropractic*. 1992 Nov, 42(6):41-42

Kochanevich-Wallace, Pamela M., McCluskey-Fawcett, Kathleen A., Meck, Nancy E., Simons, C.J.R. "Method of Delivery and Parent-Newborn Interaction," *Journal of Pediatric Psychology*. 1988, Vol. 13, (2):213-221

Lagercrantz H and Slotkin TA. "The 'Stress' of Being Born," *Scientific American*, 254:100-107, 1986

Mills, Nancy M. "Pain Behaviors in Infants and Toddlers," *Journal of Pain and Symptom Management*. 1989 December, 4(4):184-190

Nugent JK, Brazelton, TB. "Preventive Intervention with Infants and Families: The NBAS Model," *Infant Mental Health Journal*. 1989, Vol. 10, (2):84-99

Odent, Michael. "Preventing Violence or Developing the Capacity to Love," *Journal of Family Life*. 1995, Vol. 1, 3:14-17

Oolo, Allan. "Sudden Infant Death Syndrome, An Investigation of Possible Causes," *Today's Chiropractic*. 1987 Dec-Jan, 15(6):85-86+

Oolo, Allan. "Sudden Infant Death Syndrome, An Integration of Some Ontogenetic, Biomechanical, Physiologic, and Etiologic Factors," *The American Chiropractor*. 1987 Jan, pp. 10-14

Pickens, Jeffery et all. "Full-Term and Preterm Infants' Perception of Face-Voice Synchrony," *Infant Behavior and Development*. 1994, (17):447-455

Pigeon H., McGrath P., Lawrence J. and MacMurray S. B. "Nurses' Perceptions of Pain in the Neonatal Intensive Care Unit," *Journal of Pain and Symptom Management*, 4:179-83, 1989

Schneier M, Burns RE. "Atlanto-Occipital Hypermobility in Sudden Infant Death Syndrome." *Chiropractic: the Journal of Chiropractic Research and Clinical Investigation*. 1991 July, 7(2):33-38

Sills, F. *Craniosacral Biodynamics*. 2001, North Atlantic Books, Berkeley, CA.

Solter, Aletha. "Why Do Babies Cry?" 1995 April, Goleta, CA: Shining Star Press: PO Box 206, Goleta, CA 93116, (805) 968-1868

Solter, Aletha. *The Aware Baby*. 1984, Goleta, CA: Shining Star Press: PO Box 206, Goleta, CA 93116, (805) 968-1868

Solter, Aletha. "Listening to Infants." 1991. Goleta, CA: Shining Star Press: PO Box 206, Goleta, CA 93116, (805) 968-1868

Solter, Aletha. *Tears and Tantrums,* 1998. Goleta, CA: Shining Star Press: PO Box 206, Goleta, CA 93116, (805) 968-1868

Sutherland, W. G. Teachings in the Science of Osteopathy. 1990. Rudra Press, Sutherland Cranial Teaching Foundation, Inc., Portland, OR.
Swanson, Kristen. "Providing Care in the NICU: Sometimes an Act of Love," *Advances in Nursing Science*, 13:60-73, 1990

Valarik, C. "Researching the Future: An Interview." *The American Chiropractor*. 1989 September, pp. 10-13

Valenza E, Simion F, Umilta C. "Inhibition of Return in Newborn Infants," *Infant Behavior and Development*. 1994, (17):293-302

