Caesarean Birth: Psychological Aspects in Babies

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Abstract: Caesarean birth can be seen as a traumatic birth for the baby with immediate and long term consequences. C-section is a trauma because of its abrupt and sudden interruption of the biologically programmed vaginal birth process. Shock, bonding deficiencies and invasion/control complex are the major symptoms of the trauma. Baby therapy is based on the new paradigm about prenatal and perinatal life. Babies are aware before and during birth and can be traumatized. The treatment of caesarean born babies consists of two aspects: regressively re-experiencing the traumatic aspects of the c-section and the processing of vaginal birth. In exploring the traumatic aspects of the c-section so called trauma-sites are gently touched by the therapist. The baby can get activated and within the safety of a containing relationship, catharsis can take place. By supporting the baby to release his emotional pain the reprocessing of the c-section birth takes place in small steps. Babies have a knowledge about how they should have been born vaginally. Through a process of vaginal birth simulation the baby descends in the birth canal, rotates in the pelvis. Than the expulsion takes place and the baby ends up in the arms of his mother. Results of baby therapy show that babies benefit from the treatment.

Zusammenfassung: Die Kaiserschnittgeburt kann für das Baby als traumatische Geburt mit kurz- und langfristigen Folgen angesehen werden. Der Kaiserschnitt ist wegen der abrupten und plötzlichen Unterbrechung des biologisch vorgegebenen vaginalen Geburtsprozesses ein Trauma. Bindungsstörungen und ein Invasions/Kontroll-Komplex sind die gewichtigeren Symptome des Traumas. Babytherapien basieren auf den neuen paradigmatischen Annahmen über das vorgeburtliche und geburtliche Leben. Babys haben vor und während der Geburt ein waches Erleben und können traumatisiert werden. Die Behandlung von kaiserschnittgeborenen Babys hat zwei Aspekte: das regressive Wiedererleben der traumatischen Aspekte der Kaiserschnittgeburt und das Prozessieren der vaginalen Geburt. Bei der Erkundung der traumatischen Aspekte der Kaiserschnittgeburt werden die so-genannten "Traumasites" (traumabelastete Körperbereiche) durch den Therapeuten einfühlend berührt. Dabei kann die traumatische Erfahrung aktiviert werden und innerhalb der sicheren und haltenden Beziehung kann eine kathartische Abreaktion stattfinden. Indem man das Baby dabei unterstützt, den emotionalen Schmerz abzureagieren, ermöglicht man die Verarbeitung des Traumas der Kaiserschnittgeburt in kleinen Schritten. Babys haben ein Wissen davon, wie sie hätten vaginal geboren werden sollen. Im Prozess der Simulation der vaginalen Geburt tritt das Baby in den Geburtskanal hinein, in das kleine Becken hinunter und macht dann die Rotation auf dem Beckenboden. Dann findet die Austreibung statt und das Baby gelangt in die Arme der Mutter. Die Ergebnisse der Babytherapie zeigen, dass die Babys von dieser Behandlung profitieren.

Keywords: caesarean birth, psychology, trauma, baby psychotherapy

Introduction

In the last half century hospital birth has become the standard birth and in the same period c-section rates have risen up to 25–65%. Ironically birth has become more painful for babies. Pain-inflicting technological protocols of routine obstetrics are causing more traumatic births. Pain in babies is still denied (Chamberlain 1999). Up to now many scientists and medical practitioners still believe that babies are born without an awareness and sensitivity about what is going on to their bodies and psyches; babies don't have any recollection of their prenatal life; babies are unable to experience what is going on during birth and no possible harm can be done to their emotional well being. From this point of view Caesarean birth is considered to be an easy and painless way of being born that has many advantages for both the mother and the baby. In the medical profession c-section is considered to be a safe, quick and routine surgery. This attitude gives rise to the increasing c-section rates for which there are numerable additional non medical factors responsible (Verdult 2009a). Although caesarean birth has physical disadvantages and risks, the possible traumatic aspects of c-section birth in babies are ignored and denied.

Most parents seek help in baby psychotherapy because they have problems with their babies. Intensive crying, sleeping difficulties and eating problems are the most common symptoms. Most parents don't have any idea what causes these problems; most of the time they don't have any idea about the emotional pain the baby is suffering from; they are surprised when we speak about the traumatic aspects of their child's birth. Trauma in children and especially in babies is still not recognized. Prenatal and perinatal psychology has shown differently. Babies are aware, conscious, interactive and social human beings. Fetuses and babies can react to signals from their environment and can be traumatized by overwhelming input to their system. Through the work of pioneers like Thomas Verny (1981, 1992, 2002), David Chamberlain (1988) and William Emerson (1998, 2000ab) we now know that babies can experience emotional pain, anxiety, rage, loneliness or sadness during and after birth. We now know that c-section birth is a traumatic experience to the baby with immediate and long term consequences.

Through thousands of years of human evolution (phylogenese) the human baby is being born through a narrow birth canal, which is developed out of a compromise between the narrowing pelvis of his mother enabling her upright position and the baby big head containing his human cortical brain (Janus 1991). The human baby is the only species on this planet that needs an internal rotation in the birth canal in order to be born. This makes birth difficult and painful. Both the mother's and the baby's body have biochemical options to ease this pain. Birth is, in the words of Odent, a biochemical symphony, stating that we have biochemical solutions for this difficult process of entering the world. This birth process is biologically programmed in every baby. The baby knows when to activate his birth process, knows how to go through the birth canal, knows how to cooperate with his mother, and expects to end up in her arms.

Any interruption of this process can be harmful, stressful or even traumatic to the baby. C-section birth is an abrupt and sudden interruption of this natural birth process. It is not only a different doorway being used, but also a violation of the biological birth programme that is stored in the baby and activated during birth. Trauma happens when any experience is threatening the baby; it overwhelms the baby, leaving it disconnected from the body. Any coping mechanisms are undermined and the baby is in a state of helplessness and hopelessness. Modern trauma research has shown that trauma is not in the event itself, rather trauma resides in the nervous system (Levine and Kline 2007). This is also the case for babies. As trauma resides in the nervous system, the body is not going to forget about trauma. Caesarean birth can be seen as a traumatic event for the baby who has only very limited coping skills to deal with the situation and this trauma is stored in his body leading to physical symptoms.

Physiological Aspects of Caesarean Birth

The technology of caesarean delivery includes an array of interventions that are opposite to unmedicated natural birth. Odent (2004) stresses the importance of birth physiology. His thesis is: de-humanize birth and give priority to mammalianize childbirth. That is to say: what is specifically human, namely the neocortex must be eliminated, while the mammalian needs must be met. Birth is a process that is not controlled by the neocortex but more by the mammalian brain, that is the limbic system. To state it even stronger: neocortical activities during the birth process should be reduced to the minimum and labouring women should be allowed to function from there limbic system. To feel secure in the surrounding where she is giving birth is a crucial factor for reducing the release of hormones of the adrenaline family so that the neocortex is not stimulated. The labouring woman is allowed to withdraw in her own inner world where she can focus on her body and her emotions and not on external data. Privacy is a major condition. She is accompanied by a motherly, silent, low profile doula. In other words: to create conditions for an authentic foetus ejection reflex. According to Odent this reflex is the effect of a sudden spectacular reduction in the activity of the neocortex, making possible the release of a complex hormonal cocktail. During the reflex there is a short series of irresistible, uncontrollable contractions, while the labouring woman can be in the most unexpected postures. There is an sudden explosive release of oxytocin which makes birth, breastfeeding and bonding easier. The foetus ejection reflex is not seen in c-section.

A caesarean born baby is physiologically different from a baby born by the vaginal route. More after-birth complications can be seen after c-section birth in comparison to vaginal birth. The lungs and heart do not work in the same way; they have lower Apgar-score, indicating physiological problems; the glucose levels tend to be lower (especially in non labour c-sections); the body temperature is lower in the first 90 minutes after birth. C-section babies show more respiratory problems and breathing difficulties: respiratory distress syndrome which is a major cause of neonatal death; serum protein and serum calcium are lower; due to less stimulation of the nervous system and the respiratory system, breathing and reflexes are slower. Caesarean babies need more aspirations. They have more difficulties in adaption to the changing environment due to lack of skin stimulation and hormonal exchange. There is more iatrogenic prematurity because the c-section was performed too early, before the end of the pregnancy. More c-section babies are referred to NICU and show more and longer stays in incubators. They have more

risk of asthma, more risk of autism, more risk of food allergy, more problems with breastfeeding (especially non-labour caesareans).

The conclusion can be that c-section birth can have serious physiological disadvantages for baby in comparison to vaginal birth and can lead to long term problems. There can be no discussion about life saving c-sections, but in most countries the WHO-limits in c-sections (10 to 15%) are overruled. In caesarean birth the foetus ejection reflex is missing and more medical complications are seen in c-section birth. But even in critical literature like the writings of Michel Odent (2004), the emotional experiences and emotional consequences of caesarean birth for the baby are widely overlooked.

Psychological Aspects for the Baby

Jane English (1985) in her book 'Different doorway' stresses the non-labour caesarean birth as 'different' instead of 'pathological or abnormal' and she wants to see these differences as opportunities. For her, at the level of soul intention, there is no such thing as imperfect birth. C-section birth, she stated, can be exactly what the soul needs in order to learn lessons for which they are choosing to come to earth. I don't want to go deeper into this transpersonal perspective and stick to the psychological child perspective. Most prenatal researchers and baby therapists consider caesarean birth traumatic, both physically and psychologically. In his pioneering work 'The secret life of the unborn child' Thomas Verny (1981) already called caesarean birth a shock for the baby, a deprivation of the physical and psychological stimulation associated with vaginal birth. Caesarean birth has an intense all-or nothing quality, not like give and take of the waves of labour. The procedure is fast and abruptly to the baby. Since the baby does not have the boundary-giving experience of labour through the birth canal through which to filter subsequent stimuli, the c-section baby is very sensitive to the atmosphere in the operating room.

English (1994) has drawn a map of the baby's experiences during the steps of the non labour c-section.

Stage External procedure → Baby's experience

- 0 before any procedure → primal oceanic union
- 1 anesthesia → poisoning, nausea, hot-cold, alone, fear, being attacked
- 2 incision → shock, rape, shuddering, unable to resist
- 3 a) first touch → pleasure/pain
 - b) delivery of the head → ecstatic explosion into the light, sense of going home, awareness into head not body, meeting the obstetrician's eyes
- 4 suctioning → bad tastes, unsatisfied sucking reflex, strange sensations, some scary
- 5 a) body being pulled out → terror, loss, explosion, falling, fragmentation, loss of boundaries explosive dying, futile attempts at control
 - b) cutting the cord → death, defeat, total loss of support, tension in belly
- 6 stimulation to start breathing → being attacked, anger, fighting, own breathing as a strange sensation

- 7 moment of awe and wonder surrender → bonding with doctor, accepting his help
- 8 separation from doctor → grey, bleak stillness, depression, some relief
- 9 a) being handled mechanically → apprehension, scary intensity, separation
 - b) being taken care of opening → accepting, feeling nourished

This map certainly gives some clarity to the experiential world of the baby during c-section. Aspects of the medical procedure and its psychological consequences are being attended to in baby psychotherapy.

According to William Emerson (1998) birth trauma's, as caused by obstetrical interventions, have three most common long term outcomes on the psyche of the baby: bonding deficiencies, chronic shock and invasion control complex. His clinical research for over more than thirty years indicates that caesarean deliveries can result in immediate symptomatic effects in babies such as: nocturnal awaking, hyper alertness, extensive and prolonged crying (trauma crying), feeding difficulties, digestive difficulties, colic, tactile defensiveness and bonding deficiencies.

The bonding deficiencies in caesarean born babies have two major sources: the unacknowledged trauma and the tactile defensiveness. If neither the parents nor the doctors/midwives acknowledge the traumatic experience the baby has had during his caesarean delivery, than the baby remains alone with his emotional pain. His symptoms are not recognized or interpreted correctly. This lack of empathy with his suffering can lead to withdrawal. During caesarean surgery touch is often cold, objective, hurried and painful, with no respect for the boundaries. The first touch outside the womb can become associated with anxiety, leading to a defensiveness to touch. As touching and hugging are major aspects of the newborn baby's bonding to his mother, attachment relations can be disturbed permanently. Some babies withdraw from touching and hugging, get stiff when picked up, overstretch their body, or avoid eye contact. In our practise we often see caesarean born babies having insecure attachment patterns. They have difficulties in finding safety with their mothers, can't accept comfort from their mother and at the same time panic when their mother leaves the room or just put them on the ground.

The caesarean shock results from the sudden, unexpected, rough and frightening changes that occur within the two minutes of the surgery. Shock is the result of an overwhelming frightening experience in which the complete body is functioning in an extreme anxiety state. The body is in a survival mode. Not only the speed of the surgery, but also the invasion of the babies intra uterine world by forceful hands is a severe crossing of boundaries. C-section goes against the biological programmed vaginal birth, against the timing and cause of this process. Shock results in startle and fear responses. Hyper alertness and sleeping difficulties can be associated with the caesarean shock.

During caesarean birth babies tend to experience all the features of an invasion/control complex. Their world is being invaded suddenly and roughly and they experience a lack of control on what is happening. C-section babies have to be dislodged, rotated, lifted, suctioned, examined and tested, and this in a very short time and without any coping possible. The tactile defensiveness is directly linked to the c-section.

Shirley Ward (1999), an Irish prenatal psychotherapists describes c-section babies as followed: "they may sit back and wait for everything to be done for them; they lack the empowerment and self worth – being 'taken out' they did not have the vaginal struggle and feel they haven't done anything to deserve what they have; they have difficulties in doing things for themselves and in setting boundaries; for them help is a put down or a disempowerment". If older babies (from about one year old) come for therapy this pattern can be seen clearly, especially in caesarean babies with a parasympathetic shock.

A distinction can be made between non-labour and labour caesarean births (English 1985; Leverant 2000). Labour caesareans experience a strong state of separation, because the biologically programmed process of labour is curtailed by intervention and surgery. Instead of coming down and out of the birth canal the labour caesarean is pulled backward and removed from the uterus by an abdominal incision. The task of being born is interrupted, also energetically. After the c-section the baby's muscles, connective tissues and nervous system remain contracted by shock and the deep relaxation that can happen after vaginal birth is not happening. The timing of the non-labour c-section is not biologically programmed by the mother and the foetus, but it is determined in accordance with the needs of the medical staff. C-section babies can have difficulties with being interrupted while performing a task or while playing. Sudden changes can activate them. Anesthesia deprives the foetus of using his legs to push and kick down the birth canal in tandem with the mother's contractions and movements. Thus the foetus is prevented from completing the self-initiated task of being an active participant. On a psychological level the loss of the use of legs can be translated in the inhibition of walking to personal goals and in an inability for self-support. Labour caesarean babies tend to rely on external support, expecting external rescue when they are in stressful situations.

Casus Emile (Part 1)

Baby Emile was 6 month old when he was referred to our practise by his osteopath. His parents were desperate because Emile was crying 'day and night' and could not be comforted. He was eating badly and during the day he hardly slept. During the osteopathic treatment the tension in his body does not seem to go away. He became better oriented towards his midline and the reflux improved. The crying and sleeping problems remained. Emile's parent were exhausted and his mother did not recognise this behaviour in his two sisters. What we saw was a very pale and alert little boy, insecure attached to his mother, with little or no eye contact neither to her nor to us (in baby psychotherapy my wife and I work together). His eyes looked anxious to us.

His mother told about Emile's birth. One night she had strong pains in her belly and she thought that the contractions had started, although it felt different from the first two births. In the hospital the obstetrician diagnosed a placental abruption and the c-section was executed immediately. Emile was born at 36 weeks. The mother felt sad and felt a failure not having given birth in a natural way, like with her two daughters.

After the c-section the mother only had a short glimpse of her newborn son, before he was taken away to the NICU. Emile stayed there for five days and the first two days the mother did not see, nor touch her son. The mother felt it was hurtful to him and to herself not being bonded immediately after birth. She felt guilty about this.

Baby Psychotherapy

Since 1974 William Emerson (2000ab, 2001) has developed a model for treating babies with prenatal and perinatal traumas. Karlton Terry (2005) has expanded this model. I myself am trained within this model and work from this frame work, of course with the modification and limitations that go together with the assimilation process of learning baby therapy. As I am also a trained psychotherapist and psychotherapeutic interventions are being used during baby treatment I prefer to speak about baby psychotherapy, stating that a psychotherapeutic background is not only very helpful but also preferable. Babies are very vulnerable in their feelings and needs. The psychotherapeutic concept of containment, as developed by Winnicott, is crucial in baby psychotherapy.

The Emerson baby therapy model is based on theoretical assumptions, stresses the importance of certain conditions and is a combination of cathartic and empowerment techniques.

The baby psychotherapy is based on assumptions of the new paradigm on prenatal life (Emerson 1989, 1998b). In this new paradigm prenatal children are considered to be sensitive, communicative, active and conscious human beings. They are vulnerable, both physically and psychologically. Babies can have experienced prenatal and perinatal trauma, which can be encoded in their bodies. Prenatal memories are possible. Prenatal experiences can have dramatic and long term influences o subsequent life events. Prenatal trauma's have impacts on birth, as more birth complications occur when there was prenatal stress or trauma. Prenatal and birth trauma impair bonding at birth. For the healing process two aspects are crucial: the accurate conceptualisation of the baby's psyche and its expressions, and catharsis of feelings that are associated with traumatic events. Babies can recover from the effects of the hurtful experiences by releasing their feelings when these feelings are accurately and empathetically mirrored by the therapist and/or the parents.

In the Emerson-model baby therapy is permission-based and containment-based. In baby psychotherapy the baby is are allowed to express their pain through trauma-releasing crying. Emerson has called this trauma-crying (Emerson 2000a; Terry 2005). This is an intense crying by which the baby expresses the pain that was stored in his body during the traumatic situation. The baby is allowed to express himself through his crying, without being interrupted and within the safety of the present therapist an parents. Baby therapy can lead babies to the edges of their birth memories and the therapist provides them with options to accept or to refuse their memories at any time. Babies give permission to work with their trauma or not. Babies have defense mechanisms and these are respected by the therapist. Resistance is seen as a survival strategy indicating that the released pain is overwhelming.

As baby therapy can bring babies in contact with very painful memories, containment is crucial, so that within the safety of the relational field as set by the therapists and the parents, the baby can express his anger, sadness and anxiety. The mother must always be present at the treatment; the father can be present. During baby therapy the therapist is continually monitoring for signs of resistance and refusal, as the work is permission based, meaning that the baby is in charge of the treatment. Emerson calls this baby-centered control. It can be compared with the non-directive attitude of the original client centered psychotherapy (Verdult 2009b). To access painful memories this also means to strengthen the baby's ability to maintain boundaries and control.

Baby psychotherapy requires accurate empathy (Emerson 1998; Terry 2005). As the entire body of the baby is a profound expressive instrument, the therapist has to be in empathy with the baby who is telling his story through his body language. In accurate empathy the parents and the therapist can agree on the fundamental emotions being expressed as well as on the nature of other subtleties and details. The therapist is not only reflecting the feelings of the baby, but also tries to establish a compassionate contact with the ongoing feelings in the baby. Deep and accurate empathy with the baby's pain is very healing. With his sensitivity to the baby's signals and his responsiveness to the expressed pain, the baby psychotherapist can support the baby to go deeper into his pain releasing process. Empathy and containment go together. What is true for psychotherapy with adult, is even more true to baby therapy; the therapist must be in a process of resolving his own prenatal and perinatal trauma's (Stroecken 1994; Terry 2005; Verdult 2009b). As baby's are very sensitive they can sensor emotional activations in the therapist very easily. In baby therapy it can be horrific to see the baby go through so much pain. The healing is saving them from a lifetime of pain or preventing dysfunctional behaviour emerging in later years from unresolved traumatisation. But it can easily activate unresolved trauma in the therapist or parents.

As the baby tells his story about birth and prenatal life and as his body is his expressive instrument, the therapist tunes in with the body of the baby. Structural signals (f.e. malformations of the skull), psychodynamic movements, (f.e. restless movements in the legs), shock patterns (f.e. contracted body or hyperactivity), physical symptoms (f.e. breathing patterns), communication patterns (f.e avoidance of eye contact), energetic symptoms (f.e. cold feed), attachment patterns (f.e. rejection of contact with the mother).

In working with caesarean born babies the therapist listen to symptoms and looks for signals by the baby. As caesarean delivery is a very invasive process, the first signals the therapist looks for have to with the invasion/control complex. Most c-section babies are hyperalert. They can be overwhelmed by emotion very easily. Containment is important. They want help to express their anger and pain, but at the same time they have experienced that outside help can be very brutal and threatening. Caesarean babies show extreme separation anxiety. C-section babies can be very ambivalent about receiving outside help, so the therapists waits for signals of permission from the baby. As we saw caesarean babies show tactile defensiveness, in his pacing the therapist gives the baby time, space and safe boundaries to explore the contact with the therapist which is necessary and crucial for the therapeutic work.

Birth simulating massage techniques that involve gentle stroking and holding patterns simulating pressures on the infant's body that were traumatised most during the birth process. By this massage the baby can get activated and can release his emotional pain that has been blocked in his system. For this the therapist uses feather-tip pressures. For these technique the therapist must have a clear view on how the baby was actually being born. By re-experiencing the actual birth positions and movements the baby can further release his pain. This process starts with trauma posturing, in which the baby is put back in the position just before trauma. Than the actual birth process is simulated and as the baby goes through the birth canal he can re-experience the possible traumatic situations and positions he has encountered. The baby can exactly tell his birth story. In c-section babies the therapist looks for the places on the body where the obstetrician has put his fingers during the surgery. Touching these spots can be very activating. This can be the head and neck, in case the head is delivered first, or the pelvis in case of a breech presentation. These trauma-sites are directly related to the touching during the c-section operation. Being pulled can also be activating for a c-section baby.

Empowerment techniques are an important aspect of trauma therapy. This is also the case in baby therapy. In order to heal birth trauma's babies need to undergo corrective experiences that allow them to use their bodies in confident ways. The therapist tries to identify specific movement patterns that were impotent or ineffectual during birth. For example: caesarean born babies did not have use their legs to push out as in vaginal birth. In working with c-section babies the therapist invites the baby to use his legs and arms as a way of empowerment. In this way the baby can fight against the loss of control or against invasion. Caesarean babies have experienced an extreme loss of control over their birth process. They have to endure the surgical procedure. The therapist looks for possibilities to empower the baby. The baby is allowed to fight against the outside helper; the baby can stop of time out the process of rebirthing; the baby can ask for resourcing like making contact with a comforting mother.

In addition to the Emerson-model we also use attachment techniques in order to restore the attachment relation to the mother which is usually disturbed in c-section birth. The ambivalent aspect of the attachment relations are worked through; the baby needs the contact and comfort of the mother and at the same time his is afraid of being hurt again, being abandoned again.

After the emotional release schematic re-patterning is the next step. This is called the process of re-patterning. The movement patterns that babies use to get born are deeply embedded and retained in the nervous system and body. The therapist offers the baby the opportunity to re-experience his birth as it should have been from the perspective of his biological birth program. The baby can drawn inwardly and work through the emotions of these new experiences, namely the releasing of his traumatic pain and the re-experiencing of how his birth should have been. During this inner process new neurological connections are being built in his brain changing his original traumatic experience for ever. Re-patterning can make other painful memories accessible. In c-section babies this can mean that the baby can experience how he should have been born if the vaginal route was open for him. For example, by using a tunnel where the baby can crawl through,

the caesarean baby can experience successfully pushing through the birth canal as in vaginal birth. He can be given the opportunity to descend in a birth canal, do the rotation and push himself out in the expulsion phase of the delivery. The therapist creates a birth canal with pressure on the scull that are associated with the birth process.

In the French tradition of baby therapy giving words to the experience of the baby is considered to be extremely important. Francoise Dolto and her pupils Eliacheff (1995) and Szejer (1997) stress the importance of giving words to what the baby has experienced (Verdult and Stroecken 2004; Verdult 2009b). Baby can listen intensively to what they are being told about their birth history, if the therapist is able to formulate the story in an empathetic way. It is not just talking, using words, but making an emotional contact with the baby through words. Dolto assumes that babies are able to understand language if the words used are related to their experiences and if the words are used in a empathetic way. In c-section baby the therapist gives words to the anxiety that the baby has experienced, to his anger about being pulled out of the womb abruptly, about his loneliness in the first moments outside the womb, about missing the intimate contact with his mother. The therapist is the advocate of the baby and gives words to his painful memories.

Casus Emile (Part 2)

The treatment of Emile took 8 sessions of 1,5 hours. In this treatment we focussed on three aspects of the traumatic situation of his c-section birth. My wife's primary focus was on the mother's pain and on how she felt in the relationship to her baby. My focus was on the re-experiencing of the c-section, on the experiencing of the lacking vaginal birth process, and on the attachment relation to his mother, from the baby's perspective.

In the first two sessions we carefully try to figure out how Emile was exactly pulled out of his mother's womb, where the obstetrician had touched Emile during the c-section. Emile was very defensive to touching and I gave him lot of control over my hands touching him softly. I try to deepen the eye-contact so that I would be more in safe contact with him. I gave containment by holding his feet which he could accept. The so called trauma-sites are used to activate the pain stored in the body of the baby. By softly touching these sites the baby can release his pain. As Emile was a labour caesarean born baby he was already descended in the birth canal and has to be pulled out. He was overstretching, when his neck was touched. The pressure on his cranium was opposite to normal birth process. In a second phase of the surgical provcedure he was pulled out under his shoulders. Emile could get very activated and start trauma crying when hands were put softly on his head and little pressure by pulling softly was forced on his cranium. After the third session his mother reported improvements in sleeping and eating not in contact.

The fourth session seems to us of vital importance. During this session Emile was in deep pain and for the first time during the treatment he could make eye contact with his mother while being in pain. His mother was involved in his process deeply and mirrored his pain. After the moment, which took about five minutes

of intense eye contact, the bonding between mother and baby, changed for ever. Emile's mother was overwhelmed by joy and pain, because for the first time in his life she felt so deeply connected to her little son.

During the firth and sixth session the emphasis was on experiencing vaginal birth. As Emile had descended in the birth canal we simulated the rotation and the expulsion phase which were followed by direct physical contact with his mother as this did not happen during his actual birth. The lack of body contact after birth was part of his traumatic scenario. The last two sessions were a combination of simulating c-section and vaginal birth. Emile was activated less and less, and seem to enjoy his vaginal birth play more and more. His mother reported no more sleeping problems and emile slept in his own bed; no more startle responses when his sisters were making too much noise or were playing with him unexpectedly; more relaxation in his body with deeper breathing and no more overstretching. What was most important to her was that the contact with Emile was established and remained. The mother gave us a phone call about three months after the treatment was finished saying that Emile was happy, playful and more exploring his world. His symptoms had disappeared.

Concluding Remarks

Caesarean birth can be seen as a traumatic birth to the baby and to his family. Baby psychotherapy can be an answer to this painful situation. Baby psychotherapy offers the baby the possibilities to release his pain within the safety of a containing therapeutic setting and to heal his traumatic experience.

Emerson (1989, 2000a,b) did research on the effects of his treatments and his research showed the following. He observed four types of outcome in his research:

- Changes in somatic symptoms; it was common to find reversals or remissions of various pediatric diseases like asthma, bronchitis, dermatitis
- Resolution of psychological disorders; temperamental behaviours in infants were very responsive to the treatment, i.e. fussiness, breastfeeding difficulties, sleeping difficulties, irritability, hyperactivity and lethargy. In several dramatic cases, autism and attachment disorders responded to treatment.
- Prevention of anticipated forms of psychopathology; in most cases the anticipated forms of dysfunctionality did not develop. In the few cases where dysfunctionality did develop, intervening trauma and family dysfunction were found to be responsible
- Self transformation; the most universal outcome, and one which was not anticipated, had to do with transformational phenomena and contact with the Self. Treated infants were described by others as 'lighter' and more joyful, contactful, creative and independent. They were also described as emotionally aware, expressive and resolving. They have found themselves and have developed more unique human qualities.

In summary, Emerson concluded, after fifteen years of treating infants and doing research, that the results from the therapeutic work are quite clear. In many cases, psychological and physical symptoms are resolved. In addition, a type of maturation occurs (in Self and transpersonal dimensions) that seems entirely ab-

sent in the infants and children who required therapeutic attention but did not obtain it. However, these results need to be generalized with discretion. Parents of infants who completed therapy seemed to possess high degrees of psychological mindedness, empathy and caring (Emerson 1989).

In our practise we have treated 18 caesarean born babies in the last two years. Their average age was about 9 months and the average number of sessions was about 7. Fourteen babies finished treatment and four parents stopped before finishing. From our clinical observations and from the reports of the parents we can state that we have similar results. The treated babies showed an improvement in physical and psychological symptoms. It is too soon to say if we have prevented psychopathological development as we did not do a follow up check-up. Although this is not a scientific research, the clinical indications confirm that the Emerson-model for baby therapy can work to treat caesarean born babies.

The Emerson-model of baby therapy is one of the many new models that have been developed during the last two decades. In a report on the ISPPM congress in London 1998 I wrote that prenatal psychology was no longer a theoretical scientific project and that more and more applications were developing for babies and adults with prenatal and perinatal trauma (Verdult 1999). This positive tendency has strengthen in the last two decennia. William Emerson can be considered to be a pioneer on baby therapy integrating osteopatic, cranio-sacral and psychotherapeutic insights and techniques. Others therapeutic strategies have been developed by for example Harms, Castillino, Renggli and others (Harms 2000). Babies can only benefit from these new therapies. Baby psychotherapy can be seen as a preventive strategy, because the earlier in life prenatal and perinatal traumas can be treated the less impact they will have on later development.

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