

# The Signal



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## Training Health Professionals in the Neonatal Behavioral Assessment Scale (NBAS) and its Use as an Intervention

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Supporting parents as they explore the characteristics of their newborn baby has been shown to be a factor in helping parents feel confident about their parenting role. Although most parents succeed in understanding their baby, many new parents benefit from increased support in the vulnerable early weeks of forming a relationship with their babies. It is especially helpful if the baby has difficulty with sleeping, crying, and feeding.

The Neonatal Behavioral Assessment Scale was developed in 1973 by Dr. Berry Brazelton, an American pediatrician. It was designed to be

used in research to document the interactive capabilities of babies from birth to two months old. It shows the baby's individual ability to habituate to sound, light and touch, to interact and to self-comfort, and self-regulate. Dr. Brazelton was keen to highlight the positive aspects of the baby's behavior, and not to examine the baby for pathology as is done with the medical model. The baby's reaction to stimulation is shown by eliciting reflexes and handling, and noting the baby's range of states from sleeping to crying, approach and withdrawal responses. The NBAS produces a profile of the baby as a person. It also helps to banish the still commonly held view that babies cannot see or hear at birth, smile or function as an interactive partner.

It is now well-known that early experience has an effect on later behavior, and that patterns of interaction are set by three months of age. It is also well-known that the newborn is no longer a passive recipient to environmental stimuli, but is capable, for example, of identifying his or her mother's voice and smell, and the mother's face compared to a stranger's face. There are many effects on newborn behavior, such as genetic endowment, intra-uterine nutrition and infection, the effects of drug-addiction in the mother, perinatal events such as the effects of maternal

medication and anaesthesia, or episodes of hypoxia. These factors will affect the newborn's capacity to interact with caregivers and the environment.

The NBAS can be used with any full-term baby from birth to two months old. It is possible to use it with premature babies who are medically stable from about 35 weeks gestation, and it can also be used with developmentally delayed babies until they are older. The concepts behind the Brazelton Scale can be applied to almost any age group: looking at the strengths and abilities of the child; sharing the child's behavior with the parents; validating caregiving methods for the particular child; and forming a collaborative relationship between health professional and parent.

### *Studies using the NBAS*

The NBAS has been used in over 700 research studies worldwide, and also clinically. In the 1980s it was used increasingly as an intervention with parents. Liptak and colleagues (1983) reported that mothers who had seen the NBAS demonstrated spent more time playing and talking with their infants at one and three months of age. Beal (1989) found that fathers who had helped perform the assessment on their infants at birth felt closer to them one month later and were more involved in their care.

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Stern and Bruschweiler-Stern (1998) discuss the mother's adjustment to her fetus in pregnancy, and how she imagines the baby she may have. Sometimes the imagined baby is far from the baby she has in reality, and the NBAS can help a mother adjust to the real baby she has delivered. In a study by Widmayer and Field (1980), the NBAS was carried out on a group of ex-premature babies who were found to have higher cognitive scores, and the mothers felt more confident with their babies later. Rauh et al. (1988) used the NBAS with low-birthweight babies, along with other interventions, and found the intervention group had higher developmental scores at four years old. Parents of babies with Down's syndrome or other congenital abnormalities can be encouraged by all the things their babies can do, despite their difficulties. In general, the NBAS seems to enhance responsiveness in mother-infant interaction (Anderson and Sawin, 1983). The NBAS can also be used as a preventive intervention (Nugent and Brazelton, 1989). In a recent paper by Cooper and Murray (2004), it is suggested that mothers are more sensitive to their infants if they have had an intervention with the NBAS.

### *Content of the NBAS*

There are 28 behavioral items each scored on a nine point scale, which assess the infant's behavioral response to positive and negative stimuli. The materials used for the assessment are a torch, bell, rattle, and a red ball to look at habituation and orientation. The examiner's or parent's face and voice are also used for orientation. There are 18 reflex items, each scored on a four-point scale, which assess the infant's neurological status, although it is a screening tool for major abnormalities and is not diagnostic. The meaning of newborn reflexes for diagnostic purposes is unclear. In the NBAS, the reflexes are primarily used to stimulate the baby, and to show parents their baby's responses. The NBAS aims to describe the full range of the infant's behavioral repertoire in order to

provide a profile of the baby. The seven supplementary items capture the range and quality of the behavior of frail, high-risk infants. There are a total of 53 scorable items on the NBAS, some of which are administered and some observed during the assessment, like startles, tremors, skin color, and other signs of stress or withdrawal, state changes, and smiles.

The optimal scoring on all items is 1, 9 or 5. This was planned to avoid one overall score which can be misused (e.g. to predict IQ). The NBAS has nothing to do with predicting IQ. Clusters of items can be analyzed, such as: Habituation, Orientation, Motor Performance, Range of State, Autonomic Regulation, and Reflexes.

The NBAS should be carried out in a warm, quiet, darkened room on a medically stable infant half-way between feeds. The assessment takes 20-30 minutes. The examiner should be an experienced observer and handler of newborns, and flexible and sensitive enough to bring out the infant's best performance. In order for the baby to "perform" at her best, the examiner needs to help the baby feel calm and secure during the assessment. This means that the examiner needs to be sensitive and handle the baby smoothly and also needs to pace herself according to the baby's reactions. The experienced examiner learns to be flexible and adapt his approach to the reactions of the baby. The examiner also becomes a keen observer, and attempts to elicit the broadest range of the baby's behavior in sleep, wake, and crying conditions. Therefore, the examiner scores the baby's best performance so that if there is a choice between two possible scores, the baby will be given the higher score.

Aspects of the NBAS which seem to capture parents' attention are the amazing ways in which babies can follow and turn to look at their face or voice. Although it is not actually written into the NBAS, it can be very powerful to show parents how their baby will turn

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to their voices when given a choice between the examiner's and the parents' voices. Parents are reassured to know that their baby knows them and often are very surprised that their baby can identify them. Parents often think of the reflexes as skills, but showing them is also a way for the parents to see the functioning and strength of the baby.

Using the NBAS as a supportive intervention was pioneered in the 1980s by Kevin Nugent. He and Berry Brazelton point out that the most effective way to use it as an intervention is to do it three times within the first month of the baby's life. Then the areas that need support will be clearly seen. For instance, if the baby has difficulties in consoling herself as observed when the baby is crying, the health professional and the parent can work together to figure out ways to help the baby, such as encouraging the baby to suck his fingers to calm, and swaddling the baby, providing motion or calm holding. If the baby cries while bathing, this means the baby is distressed. The baby may be crying because she is struggling with the feeling of being naked and not contained. Therefore, wrapping the baby loosely in a sheet and carefully lowering her into the bath might be less stressful. Maybe some babies cannot cope with the bath at all, so they need only to be washed gently, keeping their bodies as covered as possible. The goal is to help the baby to stay calm during these changes. If the baby has difficulties sleeping and staying in a deep sleep where there is no movement at all, the baby might need a quiet and darkened place to sleep. If the baby has difficulties moving calmly from a sleep state to an awake state, efforts can be made to make these transitions easier for the baby, by gentle handling and calm holding.

Using the NBAS provides clear information about the baby's social interaction system, state system, motor system, and autonomic system.

### *Autonomic System*

Babies who show tremors, startles, changes in color, and stress signals are still working to get their autonomic system under control, and may need containment and quiet handling.

### *Motor System*

Within the motor system, observations are made of the baby's motor tone, motor maturity, head control, and activity level. Reflexes are also assessed, but are mostly used as a stimulus in the NBAS.

### *State System*

Within the state system, habituation, state organization and state regulation are assessed. In order to assess habituation (or response decrement to stimulation), the baby needs to be asleep, half-way between feeds if possible. A torch is used to assess the baby's response decrement to light. The light is shone over the baby's closed eyelids up to ten times and the baby's body movements are observed. A rattle and a bell are used for the same purpose in the same way. It is then recorded when the baby stops body movements in response to the light or sound. A baby who stops responding is said to have habituated. Babies who wake easily to these stimuli and cannot get themselves back to sleep, are more likely to have trouble protecting their sleep by themselves, and will need help, such as sleeping in a quiet, darkened room.

### *State Organization and State Regulation*

The NBAS identifies six states: deep sleep, light sleep, drowsy, alert, fussy active, and crying. By observing the lability of these states, the baby's peak of excitement and sensitivity, we get a picture of how calm or unsettled the baby is. By observing how the baby comforts himself and whether he is cuddly, and how easily he consoles, we get a picture of the baby's methods of state regulation.

The NBAS shows us how important it is to observe the baby's states, and help the baby to achieve a calm alert

state for feeding and interaction. Also, if the baby has difficulty achieving a deep sleep state, she will not be rested and in a state when the growth hormone functions, and this can lead to a baby feeling unsettled.

### *Social Interaction System*

This system is assessed by observing the baby tracking the parents' and/or professional's face and voice, tracking a red rattle and a red ball, and turning to the sound of the voice and rattle. The baby needs to be in an alert state to do these things.

We know that babies are able to do all these things, so the important question is how does this particular baby do these things, what are his strategies and techniques in coping with crying, state changes, stimulation, and interaction. By observing closely, parents and practitioners together can work out caregiving plans.

### *Brazelton Centre in Great Britain and Training*

In 1996, Johnson & Johnson commenced funding for some training centers outside the USA, and the Brazelton Centre in Great Britain was opened in 1997. Previously, trainees were trained in the USA. There are qualified trainers around the world.

In the UK, so far 48 health professionals have been trained in the NBAS. A further 60 health professionals are in the process of training. They are psychologists, health visitors, midwives, neonatal nurses, a physiotherapist, occupational therapists, nursery nurses, and a child psychotherapist. The majority of people use the NBAS clinically as a supportive intervention for parents. Training is taking place in many Sure Start areas [a UK early intervention program – ed.], where multi-disciplinary groups of 4-12 people are being trained.

Trainees need to have experience in working with and handling newborn babies. Those who do not have this experience need to gain experience

with handling newborns. This is because the NBAS is designed to assess the best possible performance of the baby, so that the trainee needs to feel comfortable handling infants.

The training program is a process. Trainees meet with the trainer for one day to watch the NBAS being done, and then score the behaviors. Then the trainees must assess and score 20-25 babies on their own. When they feel at ease, the trainer will observe them assess and score the behaviors of one or two babies. Although the training may take some time, it is designed to help trainees become good observers of young babies, and capable of understanding the full range of behaviors.

It is important that trainees arrange access to babies from birth to two months old, and that their managers allow them time to practice. Most trainees find that allocating a half-day a week to assess and score one baby, helps them to assess the 20-25 babies required within six months, which is the period we suggest for self-training. Trainees work better in groups of two, so that they can both score together and provide each other with feedback and support.

Many trainees have commented on how using the NBAS has changed their practice. Some have said that maybe their current "parent-education" programs are not helping parents in the right way. These programs emphasize parenting skills, but not building relationships and understanding baby behavior so as to provide support with understanding the baby's efforts to self-regulate.

People trained in the NBAS have noted that information about the parent-infant relationship can be gained by observing the way the parent responds to the baby during the NBAS, and also the comments and concerns of the parent. Often, in discussing the baby's behavior, the parents' concerns may emerge in a way that would not be divulged in a more

direct method of talking to the parents about themselves.

### *Summary*

The Neonatal Behavioral Assessment Scale has been shown to increase maternal self-confidence, increase paternal involvement with caretaking, increase mother-infant reciprocity scores, and help health professionals build relationships with parents, thereby encouraging parents to seek help when needed. It is now widely known that attunement between parent and baby is crucial to the development of a healthy attachment relationship. Supporting parents in getting to know and understand their baby's behavior can help to start off the process of attachment.

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#### *Useful websites*

[www.brazelton.co.uk](http://www.brazelton.co.uk)  
[www.brazelton-institute.com](http://www.brazelton-institute.com)  
[www.touchpoints.org](http://www.touchpoints.org)  
[www.zerotothree.org](http://www.zerotothree.org)  
[www.talktoyourbaby.com](http://www.talktoyourbaby.com)

#### *Training in the NBAS*

For information: [www.brazelton.co.uk](http://www.brazelton.co.uk)  
To register for training, please fill out and send in the registration form on the website. You will then be contacted to arrange a mutually convenient date.



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*UCL Attachment Research Unit together with  
The International Attachment Network and  
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### **Present a conference on**

**Parent-Infant Research and Psychotherapy  
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**Beatrice Beebe** on *Research on mother-infant  
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# TRANSITION TO PARENTHOOD IN SOCIETIES IN TRANSITION

## Mental Health Priorities in Perinatal Disturbance

By:

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### *Introduction*

There are many reasons why perinatal emotional disturbance has a high prevalence in societies in rapid transition, both developing and developed. I shall dwell both on the psychosocial aspects as well as less conscious intrapsychic and interpersonal issues.

The period of the transition to parenthood is one of emotional vulnerability as one's familiar identity alters and requires reappraisal. Further destabilization occurs under conditions of dispersed extended families and reduced support networks for pregnant women and new parents. Furthermore, it is well documented that geographical mobility and socio-economic stresses linked to rapid urbanization are associated with adverse life-events, inner-city pressures, racial discrimination, isolation and various other precipitants of perinatal disturbance (Bolton et al., 1998; Curry, 1998; Da Costa et al., 1998). All these act as additional stressors to susceptible people who are at risk over the period of childbearing with its reactivated longing for perfect care and evocative contact with the baby. Perinatal distress thus arises specifically within the emotional context of childbearing and the predisposition for disturbance is aggravated by, rather than stemming from, external psychosocial and economic factors.

Having a baby can be intensely disturbing for first time parents, even under ideal conditions. The presence (even in the womb) of a third in a couple's twosome alters the emotional balance they have worked out between

them, often leading to estrangement, competitiveness, and misunderstandings at the very time they most need to rely on each other. The high degree of insulation in urban settings results in intense dyadic relationships between cohabiting partners themselves, and each with the baby, unlike the more diffuse relationships within an extended family. For the primary caregiver in this one-to-one state of passionate intimacy, continuous exposure to the infant's raw feelings resonates with primitive substrates within. This arousal particularly affects unsupported lone parents or partners in small isolated nuclear families. The new parent feels susceptible, with few defenses to protect him or her from the onslaught of inexplicable heightened emotions, and few loving relatives to bridge and differentiate memories-in-feeling of his or her own infancy and the feelings of this baby. I suggest that in addition to the emotional impact of the infant's crying and wordless (often unintelligible) distress, unmediated contact with primal substances (feces, urine, mucus, vomit, milk, lochia, etc.) reactivates pre-verbal procedural memories from the caregiver's own early life. This "*contagious arousal*" as I have termed it, is further exacerbated in the new mother by hormonal fluctuations, the erotic sensations of lactation and the experience of breastfeeding, prolonged sleep deprivation and the moment to moment unpredictability of daily life, especially when she has few confidantes and little chance of replenishing her own resources to stabilize her new sense of self (Raphael-Leff, 2000, 2003).

In addition, I argue that western age-stratification and lack of close contact with babies while growing up, not only leaves people unprepared for future

parenting but deprives them of crucial opportunities to rework unresolved early issues. These issues usually pertain to unprocessed painful situations of helplessness and intense frustration, cumulative minor hurts and humiliations and major traumatic events such as birth or death of siblings, unmourned loss of close relatives, frightening experiences of rivalry, provocation, or violent or sexual abuse, and chronic states of emotional and/or material deprivation. Many people arrive into parenthood in a state of emotional disconnectedness from their own childhoods not having resolved these "shelved" emotions which erupt in the early weeks and months of total care for a fragile newborn.

Vulnerability and neurotic disturbances rooted in *childhood privations and deprivations* are characterized in adulthood by emotional suffering and depression, by low self-esteem, reduced creativity, and impaired relationships. These are often coupled with distressing fluctuations of mood such as intense bouts of anxiety, guilt and panic states, or incapacitating obsessional compulsive actions which aim to keep danger at bay. In others, distress takes the form of paranoid anxieties, with the baby seen as a critical hostile invader, or parenting itself regarded as a persecutory or impossible process. In cases of phobia, internal threats are projected into others or situations near or far. Due to preoccupation with their own unprocessed suffering, these disturbed adults are likely to be emotionally unreceptive to the baby in their care, unwittingly repeating their painful early experiences and inflicting these on their own children. The infant may become a receptacle for the parent's expelled dangerous feelings, invested with hated disowned parts, or conversely,

overvalued and endowed with parental idealization. Both positive and negative projections have devastating effects on the growing child's sense of self, and emotional, cognitive, and developmental capacities, especially in small, intensely interdependent nuclear families where there are no other mitigating adults.

Clearly parental disturbance has far-reaching repercussions for their offspring, yet the recent emphasis on identifying 'postnatal depression' means other aspects of perinatal disorders such as persecutory syndromes may be overlooked or subsumed under the diagnosis of PND, rather than distinguished as potentially dangerous, particularly where the baby is negatively invested or part of a delusional system. Needless to say, disturbed people often make great conscious efforts to be good parents, yet as unconscious factors break through, many show disrupted patterns of interaction with their infants, and are either defended, preoccupied, withdrawn and hence, uncommunicative and less emotionally available, or may become intrusive and overtly hostile (Murray & Cooper, 1997). This accords with the distinction I emphasize between perinatal depressive disorders and persecutory disorders [rooted in what I termed "*primary maternal persecution*" (Raphael-Leff, 2001) - the negative corollary of Winnicott's "*primary maternal preoccupation*" (Winnicott, 1956)]. These persecutory disorders (phobias, paranoia, anxious avoidance of intimacy, contamination fears and hostility related to the baby, etc.) may also feature depression and/or anxiety. Not surprisingly, this is associated with negatively tinged interaction, which is heightened by conjunction with other psychosocial sources of stress and marital discord (Field, 1992; Brown et al., 1995; Zeanah et al., 1997). And there is a correlation between social adversity and high rates of perinatal disturbance. For instance, the prevalence of postnatal depression in Khayelitsha, a huge black township near Cape Town, is 34.7% (Cooper et al., 1999), almost triple that among the white (and black) middle class population. Similarly, a large study

in Goa, India illustrates that severe poverty, social stressors, and marital violence act as precipitants of postnatal distress, with elevated prolonged depression in mothers of female babies.

Social and material adversity clearly takes its toll on a parent's sense of well-being. Economic necessity forces their hand and they may feel impotent in the face of the indifferent authorities and cruel misfortunes which thwart their desire to give the baby a good start in life. However, as in all human suffering, it is the *personal meaning* that determines how adversity is handled. In the less resilient, their own sense of helplessness is exacerbated by close contact with the needy baby's dependence on themselves. Predisposing emotional vulnerability and dependence in turn, deskill their capacity for social protest. *The external world seems to reflect their inner reality.*

Grief, guilt, and self-blame may seem to predominate in many depressed parents. However, unpacking these emotions usually reveals disguised hostility towards an internalized depriving or rejecting early figure, who is being castigated and addressed through depression. In others, grievance may be more overt. Their sense of personal injury may manifest in syndromes of self-pity and futile demands for compensation for past injuries. In yet others, fury prevails, with a burning desire for vengefulness over past humiliations. Such unprocessed dissatisfactions tend to leak out in stereotypic, disruptive, and/or repetitious behaviors, as tensions from the caregiver's internal world scenarios are played out externally, affecting their relationship with the infant. Unless past issues have been processed and resolved before the birth, despite a heartfelt wish to be a better parent than one had, parents impose revitalized conflicts with their own past caregiver's on the new baby, who is inserted into the old script and made to suffer its painful aspects as passive recipient. In addition to immediate postnatal "contagious arousal", disturbance may erupt at later periods as issues that proved particularly

antagonistic in each parent's family of origin (such as conflicts over autonomy and control, intimacy, psychic/bodily boundaries, triangulation rivalry and inclusion-exclusion, etc.) powerfully reassert themselves in the months to come, when their own child reaches a corresponding developmental phase (Raphael-Leff, 1997, 2000).

One side-effect in societies in transition is the incapacity of healthcare workers to keep up with rapid social changes. In urban societies these professionals are called upon to replace the functions of the extended family. Isolation of nuclear family units and lack of a support system increase both the intensity of feeling and the likelihood of cover-ups. Social fragmentation and loss of traditional mores manifest in earlier sexual unions, serial cohabitation and a high incidence of young, often unpartnered mothers. Single motherhood is a feature of highly developed as well as developing countries, with a great rise in the number of babies born outside marriage since 1980 - currently about 40% of births in northern European countries (especially Sweden, Denmark, Norway and Britain), compared with 4% in Greece and around 10% in southern countries like Italy and Spain (where birth rates have fallen to an all time low). In the UK, a quarter of these are born to cohabiting parents, but 2004 figures of the Government's Office for National Statistics show that one in five children is brought up with no father. Britain also now has the highest rate of very young mothers in Europe - triple that of France and Sweden, quadruple that of Italy, six times that of the Netherlands and ten times that of Switzerland! (Kiernan, 1997) with a range of associated emotional and socio-economic problems. Yet health visitors and midwives have not necessarily been trained to pre-empt these. Similarly, many fathers feel unable to cope with the emotional demands of parenting. According to a recent British survey, despite wanting to be involved fathers, even "New Men", find themselves repeating the "project based" distant conservative and often absentee patterns

of their own dutiful fathers, feeling they have no role models for joyous parenting (EuroRSGC Worldwide, Guardian 20.6.04). Once again, part of the problem may be attributed to the rapid change in expectations of fatherhood in societies in transition, without the generational backup of yore, and without opportunities to resolve the emotional issues which would lead to evolution of personal nurturing qualities.

Simultaneously, loss of a supportive community infrastructure in the absence of family-friendly policies means that *the quality of children's lives has decreased even in affluent societies*. Parents in many countries are affected by declining state assistance and inadequate minimum wage. Poverty and associated conditions of unemployment, low educational level, deprivation, homelessness and mental distress are widespread in many developed as well as developing countries. Data from cross-national surveys in "restructuring societies" such as Brazil, Chile, India and Zimbabwe show that common mental disorders are about twice as frequent among the poor as the rich (Patel et al., 1999). In the USA the incidence of births in the 15-19 group has climbed steadily over the past 20 years, and lone parent families now constitute 22% of households. Children comprise a quarter of the American nation's population; however, they form two fifths of its poor, with an increased risk of behavioral and emotional disorders. Similarly, in the UK more than one in five preschool children lives in households where income is below the poverty line (ISER Report 2000/1). Working parents may not have access to suitable care facilities for their babies and toddlers.

On the other hand, the promise of educational parity and higher occupational status with greater access to economic resources entices some young women to postpone childbearing in pursuit of a career. However, girls who are barred from attending school by

female household chores or religious restrictions lack the basic means to achieve such equality. To them, and to emotionally deprived teenagers, mothering may seem to offer a compensatory role. Girls who unintentionally become pregnant but lack access to effective contraception or safe abortion, feel thwarted in their hopes to better their situation before childbearing. The unplanned, conflicted or untimely pregnancy signals entrapment rather than a joyous experience.

Finally, in many third world and particularly sub-Saharan African countries, adult life span is now declining to four decades due to famine, violence and disease, especially AIDS, in addition to dietary deficiencies and maternal mortality. Healthy life expectancy at birth varies not only between rich and poor within societies but across the world - from 29.5 years in Sierra Leone, and 33.8 years in Afghanistan to 69.9 in the UK and 73.8 in Japan (WHO, 2001). With almost 30 million HIV/AIDS sufferers worldwide (10 million of whom are between ages 10 and 24), there are expanding geographical tracts where toddlers are cared for by young siblings or grandparents as the mid-range generation of adults have died. China has now opened AIDS orphanages. In Southern Africa, numerous child-headed households cope with the devastating aftermath of adult sexually transmitted diseases. In addition, it is now estimated that worldwide about 50 million people are refugees in countries other than their own. This affects first as well as third world countries, and there are an estimated 100 million homeless due to poverty, rural to urban displacement and trans-border migration. In addition to the unemployment, overcrowding, and social isolation suffered by many homeless people, refugees have additional anguish - many have been traumatized by painful experiences in their countries of origin, suffered effects of natural disasters or man-made torments, and the traumatic experience

of exile itself and difficulties of acclimatization in their new abode. Their marginal condition also makes them prey to prejudice, deprivation, violence or sexual assaults.

All the above mentioned psychosocial and politico-economic factors have the potential to provoke acute emotional crises and long-term sequelae. Following depression, the most frequent adult diagnosis is *post-traumatic stress disorder* (PTSD) manifesting in a range of depressive or anxiety disorders, psychosexual inhibitions, dissociation and/or excessive vigilance. A further common disturbance is the expression of psychic complaints in *stress related bodily illness or psychosomatic symptoms* of distress such as headaches, digestive problems, sleep and appetite disorders, allergies and exhaustion, all of which affect the capacity to parent a child. Even more dangerous are solutions which bypass thinking, such as alcohol and substance abuse, violence and self-harm, potentially culminating in suicide or infanticide.

Thus many new parents find themselves *susceptible to the revival of their own unprocessed infantile feelings at the very time of the greatest demand on their adult capacities*. Some function by rigidifying their defenses, utilizing primitive mechanisms of projection, omnipotence, heightened control and denial. Others succumb to the onslaught of their own unresolved emotions, finding themselves overwhelmed at times by anxiety and loneliness, or a sense of depression, self-loathing and worthlessness. They may feel themselves incapable of being a good parent, and in extreme cases may resort to suicide, or infanticide if the baby is deemed 'too good' to live under such conditions. In others, persecutory feelings dominate coupled with hostility, anger and fear of being taken over or exploited as they felt they were in childhood. These may be directed at figures outside the home, or center on the baby, at times with devastating effects.



### Perinatal Psychotherapeutic Treatment

Many of these feelings, including panic attacks, confusion, paranoia and severe mood swings begin manifesting already during pregnancy, in anticipation of the major life changes to come. Residues of early traumata manifest in a variety of presenting symptoms ranging from mild to acute depressive or persecutory feelings, including sleep and eating disturbances; obsessive-compulsive disorders and intrusive thoughts; various phobias; acute panic states; PTSD; state- and chronic anxiety; manic disorders including promiscuity; alcohol, substance and drug use and in expectant mothers also in agitation, tokophobia (fears about birth) and eating disorders. Maternal fetal abuse may take one of these indirect forms or manifest in beating, cutting or thumping the "bump". Violent expectant fathers may direct their rage at the woman's belly.

On the positive side, as at no other time in adult life, most pregnant women are seen on a fairly regular basis by healthcare givers, who may be trained to identify disturbances. With early referral, perinatal psychotherapeutic treatment can be effective in alleviating problems *before* the birth. Post-natally, mild difficulties may be addressed through short-term parent-infant or family therapy which can achieve a great deal, precisely because unconscious issues are so close to the surface at this time. More severe parenting difficulties can be pre-empted by providing therapeutic space before the birth of the baby. Where this is feasible, referral of an expectant woman or couple for weekly therapy is often sufficient to defuse an unendurable situation between them, and/or to establish some insight and free good internal resources before pathological exchanges are initiated with the newborn.

For many new parents, a major turning point comes with the recognition of human fallibility, including their own. Forgiveness of their archaic caregiver's frailties and transgressions is a by-product of contagious re-arousal of

their own unprocessed hurts.

Acceptance of one's own disturbance by the therapist facilitates processing past problems which are invading the present relationship with the baby and/or partner. However, cases of chronic distress and more intractable feelings of deprivation and early betrayal, necessitate more prolonged treatment. In these cases ongoing group or individual sessions provide the arena in which the cumulative transgenerational disturbance can be emotionally re-experienced and gradually worked through with a trusted therapist.

However, in societies in transition even weekly therapy may be an untold luxury. And many women cannot afford the price of transportation to the antenatal clinic let alone for ongoing therapy. I argue that in societies where resources are scarce, the focus must be on *prevention, detection of high-risk groups and early intervention*. Prevention is largely a

function of education about the complexity of relationships, past, present and future, which ideally should take place in primary or even nursery schools. Pregnancy can be a time of preventative care. High attendance at antenatal clinics is a priority, and can be encouraged (vide 98% attendance in Finland) by financial incentives and provisions. This then meets the criteria for screening and detection of high-risk groups before the birth. With minimal training, antenatal staff may be sensitized to identify risk-indicators alerting them to potential distress in vulnerable pregnant women, who can then be referred for counselling. An example of such a training aid may be found in Table 1.

Some potential crises are clearly related to immediate reproductive stressors, such as an unwanted pregnancy, discovery of positive HIV status, being told that she is carrying twins or that the unborn baby has a defect. Many women benefit

**Table 1: PSYCHOSOCIAL RISK INDICATORS\***

#### Conflicted pregnancies:

- *Unplanned* (this does not necessarily mean 'unwanted')
- *Untimely* (in the mother's view, she and/or the father are too young or too old or the pregnancy has come too early or too late in a couple's relationship)
- *"Wrong"* mother/father/baby (in woman's subjective valuation)
- *Internal conflicts* of Facilitator/Regulator parental orientation
- *Severe psychosomatic discharge* (such as hyper-emesis)

#### Complicated Pregnancy:

- *Physical complications* (HIV+; disability; multiple gestations, etc.)
- *Adverse life events* (bereavement, eviction, miscarriage, fetal diagnosis...)
- *Socio-economic factors* (poverty, unemployment, poor housing...)
- *Current Abuse by partner*
- *Lack of emotional support*

#### Emotional Sensitization:

- *Unmourned previous/familial perinatal complications or loss*
- *Post-infertility conception (IVF; gamete donation, etc.)*
- *History of emotional, physical or sexual trauma*
- *Borderline personality/Post-Traumatic Stress Disorders*
- *History of Psychiatric disorders*

*\*Modified from Raphael-Leff, 1993 pp.193-205*

*NOTE: This chart can be administered as a checklist questionnaire adapted to local conditions and priorities*

from help in working through painful feelings and difficult decisions or having to deal with socio-economic problems and/or physical adversity while also coping with the emotional upheaval of pregnancy itself. Other disturbances pertain to reactivated longstanding intrapsychic issues such as un mourned neonatal death of a sibling or childhood sexual abuse which surface with a vengeance during pregnancy. When several of these risk factors occur concurrently distress increases. Difficulties are not always overtly apparent, and in societies which tend to idealize gestation, it is often not appreciated that a seemingly jubilant pregnant woman might feel alarmed by her labile mental state, and by the blurred distinctions between internal and external realities, between her conscious expectations and preconscious fantasy, at a time her body has in actuality incorporated another, a person living under her skin, beyond her control, who seems to know her inside-out, aware of all her hidden secrets and "badness"...

While these factors indicate *potential* difficulties, the dangers of untreated perinatal emotional disturbance are manifold. Studies have shown the high prevalence of psychiatric disorders during pregnancy and the puerperium (Kumar & Robson, 1984; Watson, et al., 1984; Duchar, 1997), especially following previous abortion, miscarriage, stillbirth or neonatal loss (Bourne & Lewis, 1984; Milnic, 1999; Franche & Mikail, 1999). Links have been established between antepartum and postpartum emotional disorders (Sharp, 1989; Green & Murray, 1994). The adverse effects of parental postnatal disturbance on the baby's developmental patterns (Murray, 1992; Sharp et al., 1995) are now well documented. There are even suggestions of neurological registration of cumulative emotional trauma in the infant brain (Schore, 1999) and some evidence from physiological studies that high levels of *antenatal* maternal anxiety or "stress" have an effect on fetal well-being (Wadha, et al., 1993; Van Os & Selten 1998; Sjostrum et al., 1997),

however methodological problems are considerable. Nonetheless, antenatal anxiety has been found to predict child behavioral and emotional problems independently of parental depression (O'Connor, et al., 2002).

In addition, many studies have shown that prolonged clinical depression may lead to abortion or suicide during pregnancy or after, and to withdrawal and neglect of, or compensatory enmeshment with, the baby post-natally. And similarly, that intense persecutory feelings (in either partner) can result in fetal abuse, violence or infanticide. [WHO studies show a high incidence of physical violence inflicted by men on their partners during pregnancy, including kicking directed at the abdomen, which psychoanalytically, can be explained by envy, feeling excluded or deprived of the woman's attention and care]. On the positive side, as noted, it is now also well established that prophylactic treatment during pregnancy can alter the relationship between the couple, and enhance an expectant mother's impoverished self-image and/or negative unconscious representations of the baby (Pines, 1993; Cramer & Stern, 1988; Raphael-Leff, 1997). And post-natally, the range of parent-infant therapies is growing (Stern, 1995) and the importance of early intervention has been well demonstrated (Fonagy, 1998).

### Conclusion

In sum, therapeutic intervention during pregnancy is preventative and may pre-empt problems before these emerge in established conditions. Early postnatal treatment is extremely effective in alleviating distress within the parent-infant matrix. It is also economical as brief interventions in the early perinatal period have long-term effects, and reduce the likelihood of future costly interventions. In addition, much emotional work can be done in the context of group discussions both ante and post-natally, conducted by relatively unskilled care workers. Where a range of therapeutic resources are available, it is important to determine the type and

duration of treatment needed which may be gauged by the nature and severity of the disturbance and its locus within the family. In situations of crisis or transition very brief interventions might be extremely effective. In more severe or longstanding disorders specialist therapeutic treatment and possibly drugs may be required. Table 2 provides rough guidelines.

In conclusion, it is argued that the period of transition to parenthood and the early weeks and months of the baby's life are times of heightened and painful arousal for vulnerable caregivers who have not resolved the emotional issues of their own childhoods. Provision of therapeutic space during pregnancy can pre-empt many parenting worries and couple difficulties before these become intractable conditions. Where this is feasible, referral of a pregnant woman or expectant couple for weekly or even fortnightly therapy is often sufficient to defuse an unendurable situation between them, and/or to establish some insight before pathological exchanges become established with the newborn. However, in societies in transition where even infrequent therapy is scarce, health care workers trained to use these guidelines can screen people at risk, thereby minimizing the therapeutic case-load and, by focusing resources on those at risk, pre-empting postnatal disturbance. The antenatal waiting room can be utilized as a resource by enterprising health workers - to show educational posters (or videos where electricity and a TV are available) and to introduce clients to each other and foster self-help discussion groups. Drop-in community playgroup facilities offer peer support and utilize local human resources, including one-to-one back up by carefully selected and primed peers, especially older mothers who have themselves had experience of postnatal distress. For the more resilient families in a state of crisis or transition, primary health carers equipped with basic listening and counselling skills can provide containment and guidance, helping them to mobilize their own

**Table 2: PERINATAL DISTURBANCE – Treatment Guidelines\***

***NATURE OF DISTURBANCE:***

***CRISIS***

***TRANSITION***

***CHRONIC***

***NATURE OF TREATMENT:***

Crisis intervention  
Developmental guidance  
Emotional support

Counseling  
Brief CBT or other therapy  
Education/Group support

Psychodynamic therapy  
Parent-Infant therapy  
Couple/Family therapy

***FOCUS OF TREATMENT:***

***INFANT***

Sleep/feeding problems  
Excessive crying  
**1-3**

Prematurity  
Reactive disorders  
**3-5**

HIV+; FTT; Handicap  
Cumulative deprivation  
**5+**

***FAMILY***

Confusion  
PN sexual impasse  
Eviction  
**1-3**

Bereavement  
New roles  
Immigration  
**3-5**

Dysfunction  
Violence  
Emotional discord  
**8+**

***MOTHER/FATHER***

Abortion conflict  
Antenatal tests  
Back-to-work  
**1-3**

HIV+ diagnosis; Miscarriage;  
Antenatal panic reactions  
Birth trauma. Reactive depression  
**3+**

Early abuse. Addiction  
Low self-esteem  
Unresolved emotional issues  
**10+**

*\*Adapted from Raphael-Leff, 1993, p.175. Numbers indicate estimated sessions*

resources. They can offer supportive care for those with severe or chronic conditions awaiting or receiving infrequent specialist therapy. However, given the heightened emotions and painful arousal they encounter in their clients, the training of health carers must provide opportunities to address unresolved emotional issues of their own childhoods. However, issues of training and adaptation of therapeutic technique to brief encounters must be the subject of another paper...

***Summary***

*The perinatal period of transition to parenthood is one of heightened passions, which revive early experiences in the expectant and new parent, especially unresolved emotional issues. For many deprived parents close contact with an infant reactivates painful feelings and old grievances at this time of vulnerability, which may manifest in syndromes of depression and self-pity or in a*

*sense of persecution and vengefulness for past humiliations or emotional, physical or sexual trauma. Unprocessed dissatisfactions from the past tend to erupt in repetitious or disruptive behaviors, which inevitably affect the baby in their care.*

*In addition, childbearing in societies undergoing rapid transition is fraught with extra stresses. These include socio-economic disadvantages and social adversity for some groups, exacerbated by geographical relocation and breakdown of traditional life-patterns. Psychological distress and relationship problems are heightened in times of accelerated psychosocial change leading to difficulties in processing past or current experiences in the absence of a stable supportive network. When both transitions coincide perinatal disturbance is rife.*

*It is argued that in societies with scarce resources, mental health priorities must be three-pronged - prevention, detection of high-*

*risk groups and early intervention to alleviate disturbance. Pregnancy offers all these opportunities. A chart is presented of risk indicators and a scheme of treatment guidelines, as examples of applications during the perinatal period to minimize parent-infant disturbance. Health workers with minimal psychological training can be effective in screening and, in some cases, delivering prophylactic or postnatal supportive care to people at potential risk. Offering such help may enable resilient people in a state of crisis or transition to marshal their own resources. For others longer-term professional help may be required to shift the chronic effects of early vulnerability or cumulative trauma by reworking emotional predicaments in a caring and safe environment.*

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## Note

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## President's Perspective

Tuula Tamminen

*How can we promote infant mental health?*

The most important aim of WAIMH and the real reason for our existence is to promote infant mental health all around the world. But how can we achieve this goal? How can we create better conditions for babies and healthier possibilities for early human development? Research, education and disseminating knowledge are, of course, our ways to be active but in the rapidly changing post-modern world we can do more. For instance, the European Union has calculated that at least three to four percent of the gross national product is already spent directly on mental problems and disorders: the figure is an underestimate of the real but hidden costs. Moreover, these costs will rise unless strong action is taken now. Indeed, based on research data available today it has been estimated that mental disorders and problems will increase in Europe by 50% by the year 2020.

In 1999, when Finland was leading the European Union, mental health was accepted on the EU's agenda. The focus was and has been, of course, on adults. It is only in recent months that, the European Commission has come together with the WHO European Region to organise a conference in Luxembourg that concentrated on the mental health of children and adolescents. During this conference participating experts, professionals and representatives from the EU and WHO developed a report that will be presented to the EU's Ministerial Conference in January 2005 in Helsinki. It was hard work to get infant and perinatal mental health into the agenda, too.

It became clear to all of us participating in this conference that in order to promote the mental health of infants, children and adolescents in Europe we need both some jointly agreed general guidelines and culturally sensitive

national action plans. From the viewpoint of mental health, European countries were divided into three categories: 1) transition countries where massive and rapid socio-cultural changes influence the every-day life of families with infants and children, 2) post-war countries with huge amounts of traumatic experiences and 3) steady state countries where problems of self regulation, identity and parenting and emotional neglect seem to be increasing. Although challenges in these countries differ there are important similarities, too. All participants agreed that no country has done enough to promote mental health and that there is an inadequate supply of mental health services for infants, children and adolescents.

The message to scientific associations like WAIMH is strong and clear. In order to improve the mental health of infants around the world we need to increase the visibility of the basic needs for healthy mental development and especially of what can be done now. WAIMH could actively gather and effectively deliver knowledge of what works for infants in different places and cultures. We should also improve the knowledge available in different parts of the world. Decision-makers need integrated general understanding but also local research data around the world. Both researchers and clinicians in the field of infant mental health should develop indicators and ways to monitor the effects and outcomes of actions that have been or will be taken.

In the globalizing world, science is less and less a solitary island and nowadays every successful mental health service is actively responding to the people's needs. Also scientific associations could reach out and find new ways to interact more with the surrounding world. The most important task is to create and strengthen shared values guiding our actions and decisions so that the world will become a better place for infants!

# THE RHYTHMICAL DIMENSION OF THE MOTHER-INFANT RELATIONSHIP

## Transcultural Considerations

By  
Suzanne Maiello

### INTRODUCTION

In the first part of this paper, I want to share with you a few thoughts about aspects of rhythmicity which are an intrinsic part of every mother-infant relationship not only from birth onwards, but already during the child's prenatal life. The infant's first active rhythmical experience connected with sucking has in fact precursors in the fetal perception of the mother's heart beat, the rhythm of her breathing and walking. It seems that the rhythmical qualities of the earliest interpersonal experiences become part of a deeply rooted knowledge of how to relate to other human beings. This primordial knowledge remains forever inaccessible to consciousness. It has been described as procedural knowledge or procedural memory by infant research and developmental psychologists (Lyons-Ruth, 1998), who see it as based on the constitutional ground of the human being's innate primary intersubjectivity (Trevarthen, 1979).

First, I would like to think about the function and meaning of prenatal rhythmical experiences for postnatal psychic development. Research has shown that a group of newborn infants who were exposed repeatedly to hearing the beat of an adult heart, which is part of every fetus' environment, but is lost at the moment of birth, cried less and gained more weight than a control group (Salk, 1973). The results of this research show not only that the child's fetal memory is capable of storing the primary rhythmical experience of the maternal heart, enabling the infant to recognize its rhythm after birth, but also that the

heart beat has a soothing effect and is therefore connected with an emotional experience.

With this, I want to state on the one hand that basic rhythms are deeply rooted in every human being's life, and on the other, that the infant has emotional and mental experiences from before birth. Both these elements have a universal character. In the second part of the paper, I shall explore whether there are primary rhythmical experiences between mother and infant which are *not* universal, but culture-specific. To approach this question, I shall use Berenstein's and Puget's model (1997), which distinguishes three dimensions of psychic life, i.e. an *intrapsychic*, an *interpersonal* and a *transsubjective* level of experience. The first dimension is about object relations in the inner world, the second about human relationships in the external world, and the third consists in the *culture-specific* relations which the individual entertains in a shared cultural environment. As long as the object of psychoanalytic attention remained within the boundaries of Western culture, the transsubjective dimension, being shared by all its members, was largely neglected. It becomes relevant, however, as soon as we enter into contact with representatives of another culture.

The transsubjective aspect is not just an extra area which is to be added to the other two, but, as we shall see, from the very beginning of life, both the interpersonal and the intrapsychic dimension of object relations are inevitably permeated by cultural elements.

How early these cultural influences occur and how deeply they influence the individual is shown by a transcultural study quoted by Brazelton (1973). Freedman & Freedman (1969) compared the motility of two groups of newborn infants, both born in New York, one American and the other Chinese. The study found that the rhythm of spontaneous body movements of the Chinese infants was significantly slower than that of the American babies. The researchers showed that this systematic difference was connected with the difference of cadence and rhythm of the Chinese language as compared to American English. The differences were observed from birth, but their origin seems to lie in the unborn child tuning his movements to the rhythm of the maternal voice speaking his later mother tongue. This study gives evidence not only of the fact that the mother-infant relationship begins before birth and that the fetus plays an active part in it, but also that cultural elements are present and already contribute to shaping the primary relationship in prenatal life. I suggest that the internalization of these basic rhythmical elements of the relationship becomes an intrinsic part of the individual's internal and relational life.

It is from this perspective that I shall present, in the second part of my paper, extracts from the infant observation of an African baby, and share with you my thoughts about those rhythmical aspects of the mother-infant relationship, which struck me, a Western observer, as being related to the transsubjective dimension of psychic life.

## BASIC RHYTHMS AND PSYCHIC DEVELOPMENT

Rhythm is an ever-present element in all that is living. The embryo begins its existence as a pulsating entity, and the end of life coincides with the last breath and heart beat.

In prenatal life, sensori-motor materno-fetal interaction is characterized by *constancy* and *rhythmicity* (Mancia, 1981). "Primary mental activity might consist of a process of 'reading' or 'decodifying' the rhythmical and constant stimuli that reach the fetus coming from the maternal container. Furthermore, by virtue of its rhythmicity and constancy, the fetus' object world might constitute the ground plan of a *primitive biological clock* that will permeate the prenatal psychic nucleus" (p.353).

Ogden describes how the normal infant's sensuous experiences in what he defines as the "autistic-contiguous" mode, have a character of rhythmicity which, as he suggests, lay the basis for the individual's sense of continuity of being (1989).

M. Papousek underlines the constant rhythmic-dynamic stimulation during prenatal life coming from the maternal heartbeat, breathing and walking, and from the rhythms of maternal speech. The author explores the synchronization of vocal and kinetic patterns in postnatal maternal behavior with the infant, as well as the infant's sensitivity to rhythmical patterns of behavior. Her analysis of euphonic cooing sounds produced by a two-month-old infant showed a frequency and rhythmical structure which corresponds to the rhythm of the heartbeat of an adult person (1996). Stern explored the structure and timing of mother-infant interaction and observed that moments of engagement and of rest and silence alternate "at a surprisingly regular rate." Not only is there a "temporal patterning of human social behavior" as a result of experience, but "the infant seems to be equipped...to deal with the temporal world of his social interactions" (1977:

p.100). Stern's (1985) later concept of *shared attunement* develops the rhythmical aspects of experience further.

Trevarthen observed how mothers and infants "adjust the timing, emotional form, and energy of their expression to obtain intersynchrony, harmonious transitions, and complementarity of feelings between them in an emotional partnership of 'confluence'" (1993: p.57). Nursery rhymes seem to have similar characteristics in all cultures and languages. "They have predictable features of beat, rhythm, melody and rhyme that suggest innate foundations in brain activity for what turns out to be universals in the timing and prosody of music and poetry" (Papousek, 1996: p.81).

## ON RHYTHMIC CONTINUITY AND DISCONTINUITY AND ITS RELATION TO THE EXPERIENCE OF PRESENCE AND ABSENCE

Rhythm combines presence and absence in a temporal dimension. A beat and a pause alternate at regular intervals. At the earliest stages of awareness, the *continuity* and *regularity* of the alternation of beat and pause may represent the structuring element of the experience of rhythmicity, and the prerequisite for the internalization of reliable *temporal shapes* (Alvarez, 1998). These may form the basis from which a safe exploration of rhythmical *discontinuity* becomes possible as first steps towards the acknowledgement of presence and absence. Rhythmical aspects of reality could have a bridging function, leading from the primary state of unstructured fusional unity through the experience of reliable *shapes* in time towards the first dawning awareness of difference and the capacity to bear *variations*. This capacity would correspond to the first fleeting awareness of separateness, which is a prerequisite for the onset of symbolic mental activity. There may well be a connection between the quality of these early internalized rhythmical experiences

and the quality of later mental links in terms of their flexibility or rigidity.

Meeting the maternal breast is the infant's first experience of active rhythmical interplay with the external world. "A sucking movement involves pulling and slackening...there is huge activity, but hidden in the pulling and drawing is the letting go - the fundamental rhythm of life" (Alvarez, 1992: p.28). The "hidden letting go" is there, as the element that heralds in the possibility of absence, within the gratifying experience of presence, containment, and nourishment.

Not only are variations in rhythm harbingers of change but rhythm itself, in the pulsating alternation of beat and pause, represents the principle of inconstancy within constancy, of absence contained in presence.

Both continuity and discontinuity of rhythmical experiences are likely to have specific functions for psychic growth. Constancy and reliability may be the indispensable ingredients for the establishment of basic trust, whereas variations and imperfections create the space for interpersonal and intrapsychic links to acquire flexibility. The frequent problems of prematurely born children in the area of rhythm regulation show that at the beginning of life, rhythmical inconstancy and discontinuity may be bearable only once a congruous experience of constancy and continuity has been internalized. At that point, rhythmical imperfections lead not only to frustrations, but become a stimulus for reorienting attention, and for variations and discrepancies in the mothers' talk, singing, or play to become pleasurable experiences (Papousek; 1996, Tronick, 1989).

## RHYTHM AND CULTURE

I have discussed general aspects of the rhythmical dimension in the mother-infant relationship as described by Western infant research and psychoanalytic thinking. Now, I shall explore the

rhythmical elements as I observed them in an African mother-infant couple and consider their meaning for the development of the internal world of an individual.

At this point, the transsubjective dimension becomes an essential part of our considerations. We cannot think about the function of rhythmical elements in the mother-infant relationship without viewing them against the background of the presence, importance, and meaning of rhythm in African social and cultural life. We know what a fundamental role rhythm plays in all forms of ceremonies. Bühmann, a Western trained South African analyst with a keen interest in African culture, writes about ritual dancing in the following terms: "It is a slow, rhythmic movement, with emphasis on body posture and the vigorous pounding of the ground by the feet, while the dancers move slowly in a circle...the ritual dance is performed to the singing and clapping of hands of the other participants and often also to the beating of one or more drums" (1984).

Bühmann's words may tune our ears to the observation of the African mother and baby, which will follow. However, before presenting the material, I want to share with you two brief vignettes, which give evidence of the differences in early basic rhythmical experiences of children belonging to different cultures.

The first observation was done in an Indian pueblo in New Mexico during a ceremonial dance. The formal ceremony was performed by men and women who followed the drummers in a colourful procession through the village. Their dancing feet reproduced with unflinching precision the most complex rhythmical patterns of the drums with their frequent changes of beat and unexpected ruptures of cadence. The tail of the procession was formed by the pueblo children in decreasing age. The very last ones were not more than two or three years old,

but their feet unfailingly stamped the complicated rhythmical shapes onto the ground and danced them naturally and effortlessly with their tiny mocassin boots. These patterns must have been internalized at the beginning of every infant's life and become part of the shared procedural memory of every member of the group.

The second episode was observed in a nursery school class in Rome. The children had been learning a song which implied walking in a circle to the rhythm of the music and at the same time performing fairly complicated sequences of arm movements to the beat of the music. One child was a five-year-old girl from Western Africa who had moved to Italy with her mother at the age of two and had been living with a Rome family since. Saikana was a bright little girl, and well integrated both in her foster family and at school.

During the performance, the Rome children concentrated hard on trying to remember the correct arm movements, but in their conscious focus on their arms and hands, their feet fell out of the beat of the accompanying music. With Saikana, it was the other way round. She got confused with her arm movements and designed rhythmical shapes of her own making in the air, but her walking feet would never have dreamt of losing touch with the rhythm of the song.

These two vignettes may have shown the use and meaning for these toddlers and young children of rhythmical aspects of their respective cultural traditions and background. The infant observation material which follows will allow us to get in touch with some rhythmical elements present in the interaction of an African mother with her newborn baby.

#### **RHYTHMICAL ELEMENTS IN THE RELATIONSHIP OF AN AFRICAN MOTHER WITH HER NEWBORN CHILD**

During a prolonged stay in South Africa, I had the opportunity to do an infant observation in a township. I observed a newborn baby with his mother for the first three months of his life. Nosekeni was a young Xhosa woman who had moved from her native rural area to an informal suburban settlement a few years earlier, at the age of twenty. She was not married and lived with her paternal aunt Nkedama. Bambata was her first child.

Bambata was seven days old at my first visit. He was asleep in his mother's arms, a little bundle, his face almost invisible, wrapped up as he was in a towel and blanket. He was to sleep through most of the later observations as well, and I did not hear him cry until he was six weeks old. He never seemed to reach a stage when he could be aware of any needs, including hunger, because the mother tended to anticipate and satisfy them before they appeared. The baby was in fact fed at least once, and often twice during the observation hour and did not wake up for his feedings.

There was no active search or orientation towards the breast; the baby did not open his eyes before, during, or after his feeding. I always seemed to miss the precise moment when the feeding ended, and was unable to tell whether he had let the nipple go or the mother had withdrawn it. The feedings lasted only a few minutes. It looked as if there had been no experience of reunion between mother and baby. My feeling was that Nosekeni and Bambata were not really separated yet.

It did not seem to make a real difference to either mother or baby whether her nipple was in his mouth or not, whether he sucked or not. Even as the baby grew and was awake for longer periods, he used to suck quietly with his eyes closed. The feedings remained very brief, and neither the moment of conjunction nor that of separation from the breast ever became noticeable events. The transition from "breast" to "no-breast" remained fluid. She was surprised when I asked



how often she fed her baby and replied: "Always." This included day and night. She was equally surprised when I told her that European babies usually sleep in a cot separated from their mothers. Bambata was carried around or held on his mother's lap most of the time. Through the layers of towels, the two of them were in constant physical contact. Ainsworth (1967) and Tronick (1995) who observed infant rearing practices in other parts of Africa emphasized that the custom of continuous holding not only promotes growth and sensorimotor skills, but also that the ongoing reciprocal tactile adaptations induced by being carried have an important communication function between mother and baby. They stated that touch is one of the principal sources of experience and knowledge of both the other and oneself.

It occurred to me during the observation that the very special way Nosekeni's bare feet had to stand on the floor and move around might be connected with those early tactile and kinaesthetic experiences and their rhythmical qualities. There seemed to be in her feet something like a consciousness of being in contact with the ground, or rather it felt as if her feet and the ground were in a constant relationship of some form of mutual moulding.

At the level of vocal interaction, Nosekeni did not talk much with her baby, but when she called for his attention, she did so in a rhythmically modulated singing tone of voice. The radio often played African music in the background. Both mother and child seemed to be part of its melodious and rhythmical containment. At seven weeks of age, Bambata, who had been put down on the sofa for a moment, became restless and was about to start crying. His mother took him in her arms and tightened the towel around him. A women's choir was singing on the radio. Nosekeni held her baby close to herself. Her feet and body followed the music

with rhythmical movements, and Bambata fell asleep again instantly.

On another occasion, Nosekeni rocked him to sleep with her body swinging from side to side and her free hand softly beating a repetitive rhythmic pattern on his back: short - long - short / short - long - short. Bambata fell asleep immediately. It struck me that the timing and rhythm of the mother's hand corresponded to the call of the Cape turtle dove. Being one of the most common birds in Southern Africa, it seems to give its nature a basic rhythm. But probably only an outsider from other latitudes where other bird calls prevail would have noticed this. For Nosekeni and Bambata, this particular rhythmical pattern was just part of their lives, part of what Frances Tustin calls the "basic rhythm of safety," a shape in time which has a reassuring and soothing effect thanks to its ubiquity and continuity.

When Bambata was three months old, he was sleeping in his mother's arms. As usual, there was African music in the background. I listened to the densely interwoven voices of the choir, some of the men's voices forming a firm and constant bass, and some of the women's voices holding a continuous high note. Between these two constant lines, the harmonies moved and evolved. The whole musical texture was structured by the regular beat of a drum. All of a sudden, a violent gust of the winter storm shook the tin roof of the shack. Bambata startled and was about to cry. Nosekeni's bare left foot took up the beating rhythm of the music. Her body started rocking, and every now and then her voice joined in the high note of the singing women. The baby fell asleep again right away. An unforeseen loud noise had broken into the rhythmical constancy of the mother-child relation, but the mother restored the baby's "basic trust" without saying a word, simply by reinforcing the aspects of continuity in their auditory and kinetic communication.

This episode reminded me of an earlier observation in a maternity ward in Germany, where an African family gathered around the bed of a young mother after delivery. She was sitting upright and sang and rocked her baby while giving him the breast for the first time. The family members stood in a circle around her. They hummed the song with her in unison, with their bodies swinging rhythmically to the melody.

### Discussion

For the first seven weeks of Bambata's life, the mother and her baby seemed to be immersed in a practically uninterrupted common state of at-oneness which was guaranteed by their constant physical closeness and by the mother being alert to the child's needs well before he himself could be aware of them.

The Xhosa expression of *mdlezana* gave me a key to a deeper understanding of the particular quality of the mother's interactions with her baby. The Western term that comes closest to *mdlezana* is the "mother in childbed", but there are two significant cultural differences. First, the *mdlezana* period does not cover only the first days after delivery, but ends normally around one year of age when the child is weaned, and secondly, the state of *mdlezana* includes the child as well. It designates the "mother-and-child in their union and togetherness."

In Nosekeni's and Bambata's relationship, it looked as if the mother's constant physical and emotional availability protected the baby against any even fleeting awareness of separateness. In terms of rhythmical experience, I would say that continuity kept at bay any perception of discontinuity to a larger extent than in Western mother-infant couples I have observed. The frequent feedings during the baby's sleep, as well as the towels and blankets he was always wrapped in, seemed somehow to prolong the prenatal condition of continuity in the

supply of warmth and nutrition. The unquestioned tactile and kinetic continuity never had a rigid or clinging quality. Contact was constantly varied and animated by the movements and rhythms of the mother's body.

If we think about the soft and unspectacular quality of Bambata's sucking at the breast, as well as the gliding transition from sucking to non-sucking, we could imagine that the aspect of "letting go," which contains the germ of absence and loss, was kept at bay. I wonder whether sleeping through his feedings helped Bambata to remain immersed in a prenatal-like state of rhythmical continuity. In other terms, the sucking experience which *might* imply the perception of a beginning and an ending, remained embedded in non-ending rhythmical elements: heart beats, breathing, and continuous bodily adjustments. The mother affirmed the priority of continuity over discontinuity when she replied to my Western question of the number of feedings in twenty-four hours by saying "always." I felt that we had touched on a cultural difference which had to do with how we experience and structure time.

What could have appeared to my Western eyes as a certain passivity in the baby seemed only to show that there was no need for him to mobilize his own resources as long as he shared the mother's *mdlezana* condition, and the breast was "always" there. Being constantly in contact with his mother's body, tactile, kinaesthetic, and olfactory experiences which imply physical proximity were bound to prevail over long-distance means of communicating with and learning from his environment, such as verbal and visual interaction.

What Bambata got to hear had mostly rhythmical qualities. When Nosekeni spoke to him, the swinging tone of her voice accompanied the swinging of her body, and most of the time, both mother and child were immersed in the shared rhythmical and musical

consonance of the radio music. Up to the age of three months, I never heard Bambata vocalize or babble. Here again, there seemed to be no need yet to "speak" to his mother with whom he shared the *mdlezana* state of togetherness.

At the visual level, I wondered how much of the striking absence of eye contact at the beginning of the baby's life also had to do with the *mdlezana* union. The awareness of distance is necessary for sight to become meaningful. If the conditions of prenatal life, during which communication with the maternal environment occurs mostly through the fetus' sense of touch and hearing, linger on for some time after birth, it is only natural that sight remains of secondary importance. Vision is the sense that is most closely associated with the awareness of separateness and reinforces differentiation and the feeling of individual identity.

It occurred to me that togetherness and rhythmical continuity had been central throughout the observation of this African mother-infant couple; whereas, questions around separation and separateness, which are a leitmotiv in every Western infant observation right from the beginning of life, were not an issue.

In my countertransference, I was surprised to notice a similar mental state of fluidity in myself on a few occasions, both during the observation and when writing my notes after the session. I mentioned already that I never noticed the mode and moment when the baby came off the breast. Equally, I was often unable to recall who of the two women, the mother or the aunt, had said what during the observation. Furthermore, the duration of the observation time was flexible, not only objectively, because I had to wait to be picked up after my visit, but also subjectively. In a strange way, my own Western internal clock went out of use. It never occurred to me to check the time on my watch

during the observation. It was as if I had momentarily become part of the general atmosphere in which continuity prevailed over discontinuity, and communion over differentiation.

The search for the right distance implied a floating receptive attention and an ensuing process of continuous adaptation between the family and myself, in much more complex ways than in an intracultural infant observation. What I felt was that this ongoing internal process occurred in both directions between the mother and myself. It included a mutual alertness to the differences in our relational rhythms, each of which had its roots in our respective individual, social, and cultural history. Our unconscious alertness to these differences included our mutual readiness to adjust to the other's different relational rhythms. This was an extraordinary experience in itself, and I am deeply grateful to Nosekeni and Nkedama for sharing it with me with their natural warmth and generosity.

#### CONCLUDING REMARKS

In the first part of my paper, I have tried to think about more general and universally shared aspects of primary rhythmical experience. In the second part, the observation of an African mother-infant relationship gave me the opportunity to explore some aspects of the culture-specific use and significance of rhythmicity. Winnicott's *primary maternal preoccupation*, or Stern's *motherhood constellation* are notions which describe a universal theme, which however is expressed in culturally varying forms. The differences of the role played by rhythmical elements in the mother-infant relationship seem to be part of these culture-specific variations.

When I began the observation of this African baby's first months of life, I was conscious of the two vertices from which I was going to register this experience, i.e. the interpersonal and intrapsychic dimensions on the one

hand, and the transsubjective, cultural dimension, on the other.

I was to learn during the observation that it was difficult to keep the two aspects separate and that they were intertwined from the beginning. What struck my Western eyes as culturally determined aspects of this African mother-infant relationship, were implicitly and "naturally" part of Nosekeni's and Bambata's interactive reality, and of their respective internal worlds. This may seem obvious, but it taught me that when it comes to trying to understand the subjective experience of members of another culture, the transsubjective dimension must be explored, as it were, from inside the other person's world. At this point, nature and culture tend to merge into such a complex texture that the single strands are difficult to keep separate.

It occurred to me that if the roles were inverted, an African observer would view as "cultural" those qualities of a Western mother-infant relationship which differed from the elements stored in his or her own unconscious procedural memory, whereas for the observed Western mother-infant couple, their ways of interacting would feel to be "natural", and not cultural.

This reversal of perspective may appear confusing, but I feel strongly that in a multiethnic country like South Africa, the acknowledgement of the role played by cultural factors from the very beginning of life can lay the base for exploring the depth of their impact on the specific qualities of internal and external object relations. The awareness of the existence of transsubjective differences increases the consciousness of the relativity of our own cultural identity and teaches us to meet "otherness" with respect and tolerance.

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## Announcements

# The 10th WAIMH World Congress

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# BABY MASSAGE

## A Form of Early Intervention through Facilitating Parent-Child Communication

BY  
CHERRY BOND  
Neonatal Nurse, Positive Touch & Baby  
Massage Instructor

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The International Association of Infant Massage (IAIM) was founded by Vimala McClure in the late 1970s, and infant massage is now being taught in 40 countries throughout the world. Vimala's fundamental vision was to enhance the relationship between parent and child through nurturing touch. However, in hindsight, through years of observation of the profound effect on the child and parent, the program is now valued as an early intervention activity. The instructor training is a unique program through which parents are sensitively instructed to communicate with their babies through touch. Instructors do not impart their own individual opinions, or have direct contact with the babies or parents. Consequently, we do not see infant massage as a "complementary therapy" or a treatment; it is parent-based education through touch-communication. The training is open to all who are concerned with the well-being of children. Many Sure Start centers positively encourage parents to train as instructors, so that they can reach the people in their own community who may otherwise shy-away from "official" parenting classes.

### PARENTING PROGRAMS

Systematic reviews from the Cochrane Database show parenting programs can be effective in improving infant mental health (Barlow & Parsons, 2003). Despite increasing numbers of early

intervention programs in the community, there is still a significant and worrying gap between birth and early discharge (when vulnerable parents are often at home with little support from extended family or increasingly overloaded health professionals) and the availability of community-based programs. Baby massage groups can bridge that gap in supporting parents and their babies by preventing problems before they become critical.

The IAIM groups offer parents health promotion opportunities in the form of parent education and also facilitate social support. The peer group interaction and links are taken far beyond the baby massage setting. Those maternity hospitals which provide baby massage are preventative-care pioneers in taking responsibility for their clients (mothers, fathers, and infants) following delivery.

Research in the BJM shows that parents felt that postnatal issues were not adequately covered during antenatal classes and they felt classes should be driven more by the expressed needs of the consumer rather than the assumptions of the provider (Nolan, 1997).

### CHILD PROTECTION FEARS

Some fear may surround the sexual aspect of infant massage in relation to child abuse, especially among health professionals. There is no evidence to substantiate this, in fact just the opposite effect has been found (Johnson, 1985). Children who have been massaged since birth develop a strong ability to identify the difference between appropriate and inappropriate

touch, which prepares them to discriminate in social interaction in later life (deYoung, 1998). In a study by Dr. Brandt Steele and Dr. Pollack (Steele & Pollack, 1974) parents of abused children in three generations of families, were invariably deprived of physical affection themselves during childhood. Studies have shown that abusive parenting can be changed by training (Stevenson, 1999). Worldwide Alternatives to Violence (WAVE), featured in the UK's AIMH newsletter (Issue 3, 2004), stated the prime time when humans develop the propensity to violence, is infants aged 0-3 years ("The Hand that Rocks the Cradle," WAVE).

The long-term aim of introducing baby massage into parenting practice is to reduce the incidence of child abuse in the future, rather than allowing the cycle of abuse to continue.

### DEPRESSION

Postnatal depression is linked with impaired mother-infant interaction and long-term adverse consequences to the child.

Research has shown that offspring of depressed caregivers are at increased risk for maladaptive development and emotional difficulties. Specifically, infants and toddlers of depressed mothers have shown evidence of higher percentages of insecure attachments and more behavioral difficulties than offspring of non-disordered mothers (Murray & Cooper, 1997). Baby massage at Queen Charlotte's Hospital (QCH) London, has been an integral part of the parenting program since 1995. Observations during these QCH

sessions, which indicated that numerous mothers in the classes showed signs of being depressed, triggered the decision to look at this problem. Vivette Glover, Professor of Research at QCH, is studying the effects of Infant Massage for mothers with Post-natal Depression. Results:

- EPDS scores fell in both control and massage groups, but more significantly in the massage group ( $p < 0.03$ ).
- The massage group showed marked improvement in mother-infant interaction (on all scores) which was not apparent in the control group (Onozawa et al., 2001).

A longer-term study is now in progress, which will look at the mother-infant interaction scores at one year, as well as after the five massage sessions.

Baby massage intervention with depression is known to benefit both infant and parent mental health (Field, 1998), and has shown benefits for depressed adolescent mothers (Field et al., 2000). Early intervention is also important for depressed fathers (Areias et al., 1996)

There is a close association between parental mood state and unsettled infant behavior: baby massage groups facilitate management for both the parents and the infants. Studies by Kerstin Uvnäs-Moberg in Sweden, show that by increasing the amount of contact between mother and infant, it can affect oxytocin-induced attachment, health-promotion, and lower levels of aggression (Uvnäs-Moberg, 1998).

It has been proposed (Herring & Kaslow, 2002) that for families in which either a parent or a child is depressed, strategies should be based on a model



Integrating a touch policy within a Developmental Care program (NIDCAP) ensures that the touch which is given is individualized, and therefore safe and appropriate.

of the developmental phase of the child, and with the aim of strengthening attachment bonds among the family. All of these proposals fit into the IAIM baby massage method of teaching.

#### POSITIVE TOUCH

Nurturing touch and massage can also be made available for babies who are premature or medically fragile and are in

#### BENEFITS OF POSITIVE TOUCH

- It is a direct counter-balance to all the inevitable, but unpleasant touches a neonate receives in the NICU.
- It establishes a connection between the parent and child who have had an abrupt separation.
- It enables parents to feel empowered by giving them a means of understanding their baby's silent language so that a safe and appropriate "dialogue of touch" can be given at every stage of development.
- It increases the ability to help calm an infant in times of stress and offers an opportunity for parents to spend more time with their baby.
- It enhances the neonatal nurses' role in the total care of their patient. It also gives them an opportunity to show their acceptance of the parents' contribution as an essential part of the baby's long-term development.



a Neonatal Intensive Care Unit (NICU). Positive Touch is the name coined by this author to describe specially adapted touch, which is given according to the individual baby's behavioral and physiological responses (Bond, 2002).

- It encourages respect for the preterm/sick newborn infant, as a unique individual who has a clear means of communication.

### IAIM TRAINING

The IAIM courses were originally designed to be run as a series of 5-6 weekly classes. However, to meet the needs of parents and babies, many organizations (such as Sure Start, hospitals, and clinics) offer drop-in sessions, which are run on a regular weekly basis throughout the year. Parents can attend with their babies as frequently as they like, or until the child becomes too mobile. IAIM instructors are trained to help parents respond to their baby's cues/reactions through the dialogue of touch. Many baby massage courses are run by people who only appear to teach therapeutic strokes, and



this is merely a fraction of what is required. The IAIM regards the parent as the expert in the baby's care, and the baby is the teacher. Consequently, respect, empowerment, and safety is ensured, not by rules and regulations or contraindications, which are often advised due to possible litigation fears, but by trusting a world wide conviction in the IAIM, that babies are able to convey and communicate when touch becomes negative. Instructors are trained to facilitate parent-infant communication through discussions and peer group support, as well as teaching the nurturing touch techniques.

### BABY MASSAGE CLASSES

Baby massage groups are an enjoyable way of helping both the parent and infant to undergo the complex process of adjustment when a new baby joins the family. Apart from learning the techniques of infant massage, the group is a source of support and a safe place where no one is judged. The role of touch is of prime importance in this process. The way these messages are transmitted will vary from culture to culture and

individual to individual; every parent is respected as unique, with his/her own way of relating to his/her baby. Fathers-only sessions can offer an opportunity for the dads to share in the massage and also to gain support from other fathers and express confidential masculine opinions in a secure environment.

Parents are encouraged to come to the classes when they are ready. Early participation is promoted as the baby's initial environment is modulated by the parent, and experience-

dependent maturation of the baby's nervous system is driven by parental sensitivity to their baby. The stimulation which occurs in the class affects the entire sensory system in both the infant and parent, therefore triggering neurobiological patterns which can be set for life (Gunnar & Donzella, 2002).

*The instructor always demonstrates the massage strokes on a doll rather than using a baby, so that all reactions are shared between the primary caregiver (the parent) and his/her baby. This also allows the instructor's attention to be free to keep a vigilant eye on the whole*



class so the instructor can set the pace triggered by the baby's cues and the parents' reactions, while the parent works with his/her own baby.

*The class begins with a short period of relaxation, which allows the parents to unwind and slow down, and to meet the needs of the babies in unhurried interaction.*

*Permission:* We (IAIM) always begin by asking the baby's permission to start the massage. Massage is an intimate exchange and gaining permission is a very important part of our philosophy. Massage is always *shared with*, and not *done to* the baby: this touch by permission-only, is also an important lesson for the child, encouraging trust and a healthy attitude to touch. It is also important for the child, as it encourages the infant from an early age to understand that they own their own bodies, and have control over what happens to them. This approach builds a sense of trust in the growing child, and has a positive effect on the development of a secure attachment.

The parent places a resting hand on the baby and asks permission to give the massage; they observe their baby and wait for the baby's "reply".

The instructor explains about being ready for massage i.e., being quietly awake, not too hungry or full, not too fussy or tired (making parents respect and be aware of their infant's state); the

baby, therefore, chooses the right time. For some very young or sensitive infants this resting hand will be as far as they go. If the baby indicates that he is not in the right mood, the massage is not begun.

*Tuning in to the baby:* "Attunement" is an unconscious interaction between infant and parent. Parents who empathize with their infants and sensitively read and respond to their signals are less likely to abuse or neglect their children and are more likely to read babies' developmental capabilities accurately, leading to fewer non-accidental injuries (Peterson & Gable, 1998).

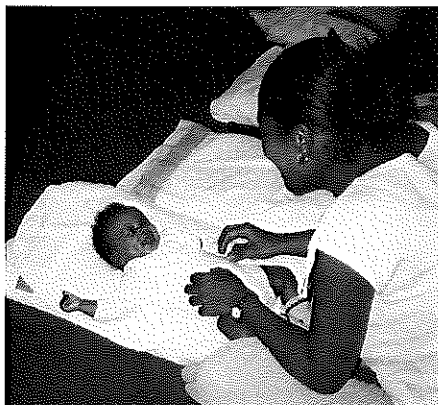
*Cues:* Helping parents to understand and respond to their child's cues can have a positive effect on their response to infant distress. The quality of care given in early parent-infant interaction can form the basis for the intergenerational transmission of individual differences in stress reactivity (Meaney, 2001); and early buffering of stress may positively affect infant brain development and coping mechanisms in later life (Gunnar, 1998). In the baby massage classes parents are encouraged to observe their baby's body language (infant cues) and adjust their touch accordingly.

*Engagement cues* can include bright-eyed focused expression, still/calm attentiveness.

*Disengagement cues* are more vigorous and include gaze aversion, yawning, hiccupping, arching, grimacing, anxious tongue poking, and legs/arms held stiffly. These signals are responded to by slowing down, stopping, or changing position, and this avoids a build up of intense negative reactions such as extreme startles with finger splay, gagging, vomiting, or crying. Parents are encouraged to respond to the cues as quickly as possible, to promote longer

periods of quiet alertness and also to avoid emotional extremes, so that the infants are neither over stimulated and distressed, nor under stimulated and bored.

Recognition of *self-regulation cues*, such as hand to mouth, claspings, sucking, staring, and leg bracing, help parents to find tactics which prevent negative reactions. These are achieved by positioning and containment strategies such as covering with a blanket or holding/cuddling close to the body rather than silencing strategies such as dummies (pacifiers), shushing, or instant food gratification.



*Cues and strokes:* The massage begins with slow rhythmic strokes, the parents' speed and timing being guided by the baby's body signals. Each part of the body is treated in a different way with a developmentally appropriate approach.

*Touch is adjusted to the individual baby:* In the first few weeks of life a baby is adjusting to the world so that the touch is kept slow or still and in small amounts, usually in one body area. At this age the olfactory-gustatory stimulation is the primary form of sensory stimulation provided by the parent so that the baby is kept in close proximity to the parent's body. The baby is not fully undressed; only the area being massaged is uncovered. Some babies cannot accept direct skin

touching, yet enjoy being stroked over their clothes. It is recommended that this small amount of massage is provided at home every day, usually at a similar time.

As the baby matures, the timing, pressure, and complexity of the strokes are increased, if and when the baby is ready. The sensations imprinted on the baby's skin help regulate aspects of the baby's behavior and physiology, via dendritic connections in the emotional limbic brain (Schoore, 1994).

At about 3-6 months, babies usually enjoy a longer massage and can delight in being undressed if the room is warm enough. They may now prefer the timing of the massage at home to coincide with evening bath-time.

As babies grow and mature, the massage will have to be adapted to their ever-changing developmental agenda. Songs, coordination exercises, games, sensory-stimulating play (the Treasure Basket) and of course, fun are introduced to the sessions. Movement and body awareness are respected by continuation of reading the baby's more mature signals/cues.

## CONCLUSION

Jaak Panksepp's psychobiological work (Panksepp, 1998) eloquently reveals recent brain research which suggests that attachment bonds are rooted in various brain chemistries that are normally activated by friendly and supportive forms of social interaction. It is now an exciting era, when neuroscientists can explain the root cause and effect of simple, loving touch, between baby and parent. However, do we always need such vast scientific evidence for something which is so clear to observe in every baby massage class? Panksepp states, "One thing modern neuroscience has revealed is that the brain is full of apparent puzzles and paradoxes, and

that logic is not as good a guide to knowledge in the natural sciences as careful observation!"

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# How Important is a Child's Temperament in the First Three Years of Life?

By  
Andrea Waylen Ph.D.,  
Professor Dieter Wolke Ph.D.,  
and the ALSPAC Team

## *Introduction*

Temperament has been defined as a relatively enduring characteristic which may have either a biological or a genetic underpinning.<sup>1</sup> Previous research has found that male infants and children are more active than female infants and toddlers; whereas, female children may be as, or even more, emotionally difficult than boys. Although it is sometimes suggested that such sex differences have biological as opposed to social causes<sup>2</sup>, it is not easy to determine the earliest age at which they appear and can be measured, perhaps because the neonatal period is associated with organization and adaptation (for both moms and infants).<sup>3</sup> Once sex differences in temperament can be assessed reliably, the stability of such characteristics can be determined. Teachers have been reported to associate aspects of a child's preschool temperament with expectancies about the child's later personality.<sup>4</sup>

Social and environmental characteristics which may impact on temperament include family structure and social networks.<sup>5</sup> Furthermore, links between development and temperament have been proposed in the literature: Eaton et al.<sup>6</sup> found an inverted U-shaped trajectory for activity level across childhood (peaking between 7 and 9 years of age) and they suggest a potential trade-off between physical activity and growth (e.g., a very active child may grow more slowly). They also

suggest a relationship between physical activity and cognitive development: increased physical activity seems to occur during Piaget's sensori-motor stage (infancy) and during the concrete operational stage (7-9 years) as children begin to move from concrete towards abstract thinking. In other words, when a child's learning and development is reliant upon concrete relationships and associations, physical activity might be desirable. It can be seen, therefore, that an intricate relationship between cognitive development and active temperament (which in turn is dependent upon developmental phase) has been proposed.

In the current study of temperament and development during the first three years of life there were four issues which we wanted to address:

- A description of the level of the child's physical activity and emotional state during the first three years of life.
- The stability of these activity and emotionality patterns over time: are they enduring characteristics?
- Associations between physical activity/emotionality and social and environmental factors e.g., the working patterns of mothers.
- To investigate the relationship between physical activity/emotionality and developmental progress.

Data came from the Avon Longitudinal Study of Parents and Children (ALSPAC): a longitudinal population study which has been ongoing in the Bristol/Avon area since September 1990.

Expectant mothers were recruited to the study (if they were expecting a child between April 1991 and December 1992) via advertising in chemists, libraries, playgroups, GP surgeries, etc. and also via national coverage in the press, and on the radio and television. The initial sample (at recruitment) was 14,893 pregnant women – of these, 13,995 delivered 14,138 live babies. Since recruitment, mothers (or primary caregivers) and their partners have been asked to complete an annual postal questionnaire regarding their own health, attitudes, circumstances, and behavior. Mothers are also asked to complete bi-annual postal questionnaires concerned specifically with the health and development of their child. In addition, since the children passed their seventh birthday, they have been invited to attend annual clinics where physical and psychological measures can be taken. Full details of the research program can be found at [www.alspac.bris.ac.uk](http://www.alspac.bris.ac.uk)

In the work reported here, moms were asked about their children's temperament (specifically activity and emotionality/difficultness) and behavior up to the time of their third birthday. (This work was sponsored by the Pampers Institute.)

## *What did we find?* **Sex differences in physical activity and emotionality**

At four weeks we found no sex differences in activity: moms rated their sons and daughters as being equally active. At this newborn stage, activity is closely related to how sociable and alert an infant is. Although parents considered activity to be separate from

sociability by six months there were still no sex differences. By 24 months sex differences were observed: moms reported that their sons were more active than their daughters and the difference persisted at 38 months. There was no sex difference (according to parental report) with respect to how emotional or difficult boys and girls were at four weeks, six months or 24 months. However, by 38 months there was a difference: girls were reported (by their mothers) to be more emotional and moody than boys.

It is generally accepted that emotionality and activity are independent (uncorrelated) aspects of temperament. Only during the child's transition towards greater independence at 24 months (during the "Terrible Twos") were highly active toddlers also reported to be more moody and emotional, displaying more active tantrums!

### **The stability of physical activity and emotionality during the first three years**

If early temperament is used by some (e.g. teachers), as a predictor for later personality characteristics in children, then it is important to determine how stable it is across time. Between four weeks and six months there was no stability: an active newborn is not necessarily an active six-month old nor is a placid newborn necessarily a placid six-month old. However, between six months and 24 months the strength of the relationship between activity levels across time increased and it became stronger still between 24 months and 38 months. In other words, it appears that activity is an individual characteristic which becomes increasingly stable over the first three years of life. Twenty-two percent of those children rated as highly active at six months were rated as highly active at 24 months, and 45% of those rated highly active at 24 months were still rated as highly active at 38 months.

Only 18% of those rated as inactive at 24 months were in the same inactive group at 38 months. In other words, highly active children are more likely to remain highly active from 24 months than might be expected by chance, whereas, low activity is less stable.

Those children with difficult and highly emotional temperaments are quite stable over time: 70% of highly emotional six-month old infants were still rated as being highly emotional at 24 months, and 81% of those who were highly emotional at 24 months were still rated as highly emotional by 38 months. An emotionally difficult infant is very likely to be an emotionally difficult toddler!

### **Associations between temperament and social and environmental factors**

Activity and emotionality levels were examined in association with a variety of environmental and social factors. Factors which intuitively might be considered to have a significant effect are maternal employment, sibling relationships, and the social network within which a child is raised. No differences in activity or emotionality levels were found at any age according to whether moms worked (full or part-time), whether the children attended daycare, or whether they were looked after at home. Sibling relationships were equally unimportant: the presence of older siblings exerted no influence on temperamental characteristics during the first three years of life.

Mothers were asked to report the extent to which they and their partners played with their children, providing intellectual and physical stimulation both at six months and also when the children were three years old. When the child was six months of age, mothers reported that they were consistently more likely than partners to stimulate him/her in a variety of ways: physical play, cuddling,

or singing to the child. There were no sex differences in the amount of any type of stimulation given to children by their mothers although toy types did differ – boys had more active toys such as balls, toy vehicles, and interlocking toys whereas girls had more passive toys: dolls, mobiles, etc. We also looked at the amount of play ("quality") time with the child according to whether or not the mom worked outside the home – there were no differences to be found. In other words, even if moms work outside the home, they still spend as much interactive time with their children as those who don't.

### **Does parental stimulation increase activity levels in the child or do active children demand more stimulation?**

Both mothers and their partners spent more time occupying highly active children than those children who were rated as less active. This association seems to be driven by the child: children who were highly active at four weeks received more stimulation from their parents at six months than those who were inactive. By three years of age parents seem to have adapted to the behavioral demands of their children: children who were reported to be highly active at 38 months were allowed to spend more time outdoors than less active children! It may be that this is because it is easier for active children to be active in an outdoor setting!

### **Temperamental differences and development**

It's interesting to consider whether temperamental differences help or hinder early physical and cognitive development. A strong relationship was found between how active, alert, and sociable a child was and his/her physical development at four weeks of age – infants who were more active, alert, and sociable were more likely to be lifting their heads and beginning to control

other movements. Similarly, at six months, children who were more active had better gross motor scores (sitting unsupported, reaching and grasping) and more advanced social skills (smiling at specific individuals, recognizing facial expressions). However, the temporal relationship is more complicated: those children who are highly active at four weeks are likely to be less well-developed as far as sitting, balancing, reaching, and grasping, etc. at six months; whereas, those who are more active at six months are more likely to be developmentally advanced at 24 months. Activity at 24 months has no effect on development by 38 months, but this may well be because the important developmental tasks at this age are associated with higher cognitive functioning (e.g. language development). It seems that physical activity has different effects on subsequent general developmental progress depending on the areas of development which are important at the time. We found no associations between emotionality/difficultness and development during the first three years of a child's life. A difficult child may make life uncomfortable for his/her parents, but there are unlikely to be cognitive developmental consequences!

### Summary

This study of temperament during the first three years of life using the ALSPAC cohort has shown that there are sex differences in temperament, but that these cannot be reliably measured until the child is about two years of age. From two years onwards, boys are more active and girls more difficult or emotional. Temperament becomes increasingly stable from about six months of age (especially emotionality) but can only be considered to be moderately stable by about two years of age. Maternal employment and older siblings have little effect on a child's temperament: rather, the child's temperament appears to shape the

immediate environment i.e., parental involvement. Finally, there are associations between temperament (particularly activity levels) and development, but these depend on the stage of development: there are periods when high activity is beneficial (e.g. the sensori-motor stage at six months) and others where it does not seem to matter.

In conclusion, there are emerging sex differences in temperament during the second year of life. Temperamental characteristics become more stable with age and they impact on parents, causing them to change what they do with their child. There is no "good" or "bad" temperament: instead, high activity levels may be either advantageous, of no importance or detrimental at different phases of cognitive development.

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### Note

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### Footnotes

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# WAIMH *Affiliate News*

## Quebec Association for Infant Mental Health

Quebec Association for Infant Mental Health (QAIMH)

L'Association Québécoise pour la Santé Mentale des Nourrissons (AQSMN)

Infant psychiatry has long been active in Quebec. A number of child psychiatrists and psychologists from Quebec attended the first congresses of WAIMH and in the mid-eighties Dr. Louis Couture and his colleagues in Quebec City founded an affiliate to WAIMH called L'Association pour le Développement Optimal des Nourrissons et des Enfants (ADONE). In 1997 during the preparations for the Seventh Congress of WAIMH in Montreal (2000), the Association was renamed L'Association Québécoise pour la Santé Mentale des Nourrissons (AQSMN) or Quebec Association for Infant Mental Health (QAIMH). The statutes and regulations of the original association were updated to conform to the regulations and bylaws of WAIMH.

The Association was fortunate to have had a number of internationally renowned pioneers in the field of infant mental health, such as Professor Yvon Gauthier and Professor Jean-Francois Saucier from the Ste. Justine Hospital (Université de Montreal) and Dr. Klaus Minde from the Montreal Children's Hospital (McGill University). Their enthusiasm and generous support of the Association and its activities have been invaluable.

Today the Association is a small dynamic group of around thirty members. Like WAIMH, our membership is comprised of child psychiatrists, psychologists, social workers, public health nurses, and early childhood educators. The large majority are involved in direct clinical work with infants and their families. A few members are involved in research at the various universities in the province of Quebec. The membership is largely based in Montreal and is bilingual.

There are two main networks of infant mental health professionals: one attached to the Université de Montreal (Francophone) and the other to McGill University (Anglophone). Members can participate freely in the activities of either group. The Université de Montreal Group holds monthly clinical and scientific meetings throughout the academic year at a local CLSC (Local Community Health Facility). The McGill Infant Mental Health Group also meets monthly. Since the early 1990s the McGill Group has held a conference each autumn on issues of infant mental health for professionals in the public health and social services network.

The principle activity of the Association has been the annual spring conference which over the years has covered topics such as alcoholism in the family, aggressive behaviors in young children, the infant in the multi-problem family, home visiting and post-partum services, the premature child and his family, the importance of fathers, and the

importance of maintaining family ties for children in daycare. This year's conference addressed the "Influence of Culture on the Care of the Newborn." Each year we invite speakers, not infrequently one of our members, to present their research or clinical work on the chosen topic. We try to include presentations of innovative methods of programs and interventions. This approach seems to reflect the multidisciplinary nature and interest of our membership.

The Association has a Web site which was developed and designed for us by psychology students at the Université du Québec à Montréal (UQAM). Despite the fact that not all our members have access to the Internet, after much discussion, we have decided to publish a newsletter twice a year on the Web site. The first is due to be published this autumn.

There are still many challenges facing the Association. Too often work with the very young is perceived as a luxury only possible and available in large urban centers or university-based hospitals. One challenge is to find a way to establish and maintain links with the professionals working alone in small towns and rural areas. For a number of years we held the annual conference outside of Montreal on alternate years. Unfortunately, while the regional meetings were well attended, they did not result in the development of local grass root groups. Another challenge

has been to establish ongoing connections with the professionals involved in research on infants and young children in the various universities in Quebec. While it would seem that such a relationship should be enriching to both the researcher and the clinician, it has not occurred thus far. It would be interesting to know of the experiences of other affiliates in this area.

The hosting of the WAIMH Congress held in Montreal in 2000 was a significant event for the Association. The work involved in planning the Congress resulted in the creation of solid professional relationships among the members, across linguistic and university lines, which continue to this day. Despite the small number of active members, the Association is widely known in the community. However, the small size makes the connection to the WAIMH community especially important. We would like to have contacts with WAIMH and its affiliates; for instance, contacts with those who are geographically close to us, other than the bi-annual congresses, which would give our members a greater sense of being part of an international association. We would welcome an exchange of ideas for ways in which closer links could be forged.

Alain Lebel M.D.  
Past President (2001-2003)  
Association Québécoise pour la Santé  
Mentale des Nourrissons  
Quebec Association for Infant Mental  
Health

Translation: Eithne Taylor, MSW, past  
member of the executive of QAIMH

## **TOTS** **(Toddler Observation Training System)**

### **Designed for Home-Based Toddler Attachment Assessment**

By: John Kirkland

#### *Introduction*

The initial version of TOTS was created in 2002 for training field-based observers involved with the current US nationwide project known as the Early Childhood Longitudinal Study – Birth cohort or known as ECLS-B. Once field-observers were trained to a satisfactory level of proficiency with TOTS then they used the Toddler Attachment Sort, consisting of 45 item-statements, known as TAS45 for reporting purposes. In summary, TOTS is the first step for familiarizing and training observers who will be using the TAS45.

#### *TOTS Modules*

At this stage there are three modules available and two more are being developed. In total, each module takes about an hour to complete.

Module 1 introduces the 45 item-statement “cards.” Two sorting exercises are provided here to familiarize participants with the cards’ contents and how they may be clustered into labeled groups.

Module 2 begins with an overview about how these 45 item-cards can be distributed into one of 5 rank-ordered piles. Then follows four text-based descriptions of several attachment-like scenarios. Although twelve scenarios

are available in total, these are presented in sets of four, each one having an A-, B-, C-, and D-like case included. Participants read one selected scenario at a time and then proceed to follow the card-distribution sorting procedure. This procedure is a modification of the familiar Method of Successive Sorts involving two levels of discrimination. In the first one, items are placed into one of three piles labeled as: “clearly evident,” “unsure,” “not evident.” While participants are encouraged to distribute items fairly evenly among piles, the only constraint is that no more than 19 cards can be placed into a particular one. At the second level items in each of the end piles are represented for splitting in two. At either level items may be moved between piles. Apart from the 42% rule there are no further constraints. When sorting is completed, the analysis generates a frequency histogram. This graph indicates the relative proportion of each cluster (module 1) noted by the observer for the particular case. In addition, this graph is correlated against the appropriate standard and a goodness of fit computed.

Module 3 is similar to module two except four short video clips (12-15 minutes) are presented instead of text-based scenarios. Each is viewed, then trainees sort items from the TAS45 deck into the five ranked piles.

*Continued on Page 36*

# CONFERENCE REPORTS

## **Pathways to Change: Clinical Interventions with Infants, Young Children, and their Families**

*Tavistock Centre  
London, UK  
March 24-27, 2004*

One hundred and thirty professionals from 16 countries gathered at the Tavistock Centre for this conference organized by Louise Emanuel, Dr. Elizabeth Bradley, and the Under Fives Counselling Clinic. I found this to be a very important and rewarding conference. It was important from the perspective of social policy because governments in Britain and in Australia (where I live) appear to be beginning to recognize that investment in the early years has a major impact on later life. It was rewarding because of the excellence and variety of all of the presentations, as well as the presence of many experienced and distinguished practitioners. My summary can only focus on one small part of this intensive experience.

The size of the conference ensured that this would be a true work group with the opportunity to reflect on the presentations with detailed discussion. The opening of the conference commenced with Meira Likierman's presentation on "The Symptom and the Context: Helping Families with Young Children to Understand their Anxieties." This detailed case presentation described the different levels of hope contained within the presentation of young children and their families to an under fives counseling clinic, as well as the different levels of

hope evoked in the therapist in response to what is observed and understood.

The attention to detail in all of the presentations at this conference and the corresponding commitment of the participants to respond with their own careful concentration and attention emerged for me as a true highlight of this conference. At the risk of stating the obvious, it confirmed for all of us that children, parents, and families live in their inner world as well as their outer world and that this recognition is crucial to understanding the painful histories that contribute to the cycles of deprivation, despair, and abuse.

There were many excellent plenary presentations as well as 15 parallel sessions. As one participant stated, "I want to go to all of them." The Tavistock tradition of providing a space for experience and learning to be metabolized was additionally provided through small discussion groups.

From the perspective of living outside of the UK, I was very impressed with the number of presentations that involved child psychotherapists working collaboratively across different professional boundaries. This seemed evident not only from the presentations, but also from the discussions and comments from the floor. In one of the parallel sessions, a child psychotherapist, a maternal and child health nurse, and a psychologist described their collaboration in setting up CAMPIP, a Cambridge-based parent-infant center. It was interesting to hear the health visitor point out that nurses have to shift their perspective from a traditional focus on health to one that asserts "the relationship is the patient."

Pamela Sorensen's paper on "Changing Points of View: Helping Parents Look through the Child's Eyes" described her work as the director of an Under Fives Study Centre and Clinic at the University of Virginia in the United States. She presented a disturbing picture of the economic, cultural, and psychological attitudes to health care in the United States and in particular how this affects work with young children.

These problems were instantly recognizable to me since many of the American ideas about health care have already been "imported" into Australia. Pamela described the problems associated with the fact that all children require a psychiatric diagnosis in order to access the health system. This means that the presentation of the problem becomes defined as a "disease" or a diagnosable mental illness. Pamela pointed out that an inevitable follow on from this emphasis on a psychiatric diagnosis, is the massive prescription of drugs for children, even those aged under five. She referred to the current use of anti-psychotic drugs known as "atypicals" which are commonplace and widespread.

Pamela went on to give her own interpretation of these events under the heading of "why the depressive position is un-American." She argued that in the United States there is a tendency to assume "entitlement to happiness" rather than to recognize the mental work that is intrinsic to the "pursuit of happiness." American culture favors an approach based on self-reliance and the value of standing alone. There is an over-arching denial of dependence, which sees babies as young as six weeks placed in daycare. This is reinforced by the federal approach to welfare recipients

which insists that mothers return to work six weeks after birth or lose their rights to benefits.

Pamela gave further examples of how merchandising for children capitalizes on promoting ideas of self-reliance, by introducing products that reflect the idea of an "autonomous learner." She mentioned a "learning toy" called "Discovery Baby" in which a teddy bear with a computer chip "talks to the child" about a program on TV. As Pamela put it, in this context the idea of relationships as a key to learning becomes obsolete. Additionally, in a country that favors an "image centered discourse" this leads to the severing of ties with relational experience, the importance of the context, and the ability to make connections.

By contrast, the Under Fives Counseling Service of which Pamela is Director, places the child at the center of an interactive context. There is an emphasis on taking a detailed history about the child over a 24 hour period. This includes their food and clothing preferences, interest in pets, and their idiosyncrasies. The taking of such a detailed history gives parents and clinicians an insight into the child's actual behavior at home. It leads to what Pamela called an "evolving meaning from the child's point of view." Thus the child's behavior comes to have meaning for the parents as well. This process of shared meaning Pamela described as resonating with Peter Fonagy's observation of "a prompt to mentalization."

This presentation in particular brought home to me what a considerable achievement it has been to have child psychotherapy recognized as a fully fledged and independent profession in Britain, and how important it is to protect this achievement. Australia, similarly to the United States, has a rebate system in which only medical practitioners are reimbursed by the government. This has resulted in the exercise of strenuous control, particularly

by psychiatrists, not only of the way in which children's problems are defined and diagnosed, but also of any alternative emerging profession such as child psychotherapy.

Going to another part of the world, this time to South Africa, took us to Dr. Astrid Berg's presentation on "More than Food is Needed: Failure-to-Thrive – window into the Parent-Infant Relationship."

Dr. Berg is a child psychiatrist at the Red Cross Children's Hospital in Cape Town. In working with a failure-to-thrive young child, a courageous stand was taken by Dr. Berg and two nurses in the hospital, not to focus solely on the feeding problem, but rather on the issues of attachment and loss surrounding the presentation of the problem. The case presented, involving the mother, foster mother and child, introduced a novel assessment tool. This took the form of giving the child a biscuit and observing closely how he responded. For example eating it or, in this case, demonstrating initial withdrawal and suspicion. In using the giving of the biscuit as an assessment tool, Dr. Berg referred to Winnicott's comment that "doubt about food hides doubt about love." This was a very moving presentation particularly as it included video clips of the setting in which the work took place. The mothers in the clinic waiting patiently for their children to be seen seemed to articulate the theme of hope in a society in which family life has become fractured and there are considerable threats to the development of young children.

A completely different note was introduced by the two research presentations on the first and last days; the first given by Dr. Penelope Leach, senior research fellow, and Professor Alan Stein, research and child psychiatrist, both of Oxford University and the Tavistock Clinic, and the second given by Philip and Carolyn Cowan, both professors of psychology at the University of California in Berkeley.

The first presentation by Penelope Leach and Alan Stein seemed not sufficiently embedded into the conference theme. It focused on "Mothers' Feelings about Types of Childcare in the First Year of Life." While the presenters appeared to be most concerned about the shortcomings of organized daycare for young children, the more significant finding appeared to me to come in the shape of the mothers' view of "ideal" childcare for their children at the age of three months. Of the group surveyed, only 0.5% of the group wanted to leave their child full time with the father, and only 7.2% considered that the father and mother sharing the care of the baby would constitute "ideal" care! This struck me as a very worrying statistic indeed, reflecting the nature of the core parenting partnership. Hopefully, it will be further investigated.

By contrast the core parenting partnership was very much at the heart of Philip and Carolyn Cowan's research, in their presentation on "Preventative Interventions for Couples with Young Children." Their research emphasised the need to address the stress and pressure on the parenting partnership when children are under five years of age. In addition, their findings confirm that the quality of parenting and marital relationships contribute significantly to children's success and difficulties in early and later childhood. Positive couple relationships can also help break negative intergenerational cycles.

Finally, an extraordinary presentation on the last day of the Conference on the uses of video in facilitating communication between a mother and baby, given by Amanda Jones, family psychotherapist of the North East London Mental Health Trust and Juliet Hopkins of the Tavistock Clinic. The presentation entitled "Can the Use of Video in Parent-Infant Psychotherapy Facilitate Pathways to Change?" would have to engender a resounding "yes." This video of a deprived and traumatized young mother and her

seven-week-old son was very painful to watch. The mother appeared initially dressed in a raincoat and hat which almost entirely obscured her face, giving her a rather sinister appearance. We watched the mother's intrusive and repetitive attempts at "kissing" her baby by holding him against her face in an almost smothering embrace, while the baby went into a wide-arm rigid startle response.

The core of the therapeutic work centered on the meaning of this intrusive and repetitive embrace in relation to the mother's family history and personal experience. It was fascinating to observe how by watching the video together, the mother and the therapist could make connections between the external reality and the mother's inner world. It struck me as offering so much more than many conventional video presentations that appear to focus mainly on showing the mother what she is doing wrong. As the presenters explain, "...the technique has contributed to this young mother starting to understand the landscape of her internal world and the complex unconscious defensive processes she has used to navigate this terrain." It made me wonder about the function of the video experience as a kind of third person container. Contrary to what one might have assumed, the inclusion of the third element in the form of the video recordings appeared to diminish the mother's sense of persecution that she may have experienced in more conventional one to one psychotherapy.

I had only some minor quibbles about the conference. It was rather long, over nearly four days ending late on Saturday, although I appreciate that the organizers wanted to include as many presentations as possible. The final presentation on work with a borderline psychotic child, although very interesting, I felt really belonged to another conference altogether.

Given the terrific level of experience in the group and the quality of

participation, I would have preferred much more time devoted to the final plenary session. The international nature of the Conference also offered unique opportunities for us to explore and share how practice can be linked with policy for Under Fives.

In the event, despite the fact that the final plenary took place after a number of people had already departed, the sense of enthusiasm and purpose was still present, and an undertaking was made to set up an informal link for those of us interested in staying in touch and sharing ideas and information.

I have always found that conferences, like workplaces, develop a dynamic that closely reflects their task or purpose. The beginning of this Conference introduced the theme of hopefulness in the clinical setting. The continuing vibrancy and excitement of many of the presentations continued this further, reflecting, I think, the hope we all share in working with infants and young children.

Ruth Schmidt Neven  
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## 5<sup>th</sup> Solihull Approach Conference – November 18, 2003

### Attachment, Reciprocity, and Working with Families

The day was opened by Crispin Atkinson, Director of Primary Care, Solihull Primary Care Trust, who described the *Solihull Approach* as an area from which the rest of the NHS can learn. Mary Rheeston (*Solihull Approach* Facilitator) then gave the audience a brief overview of the *Solihull Approach* in order to formulate a framework for the day. Mary described how the approach was developed by a coming together of psychotherapeutic and behavioral interventions, based on theories of containment, reciprocity, and behavior management.

Our speaker for the day was Dr. Miriam Steele, a lecturer in the Department of Psychology in UCL and a psychotherapist from the Anna Freud Centre, who has researched extensively in the field of attachment, and whose main areas of interest include the study of intergenerational patterns of attachment. The aim of this Conference was to explore the relationship between attachment and reciprocity, one of the three theoretical cornerstones of the *Solihull Approach*.

The *Solihull Approach* was initially devised in order to help children and families with sleeping, feeding, toileting, and behavior problems. From the diversity of the audience and the huge number of requests for training nationally, it is now being recognized that this way of thinking can enhance the work of all professionals working with children and families.

Dr. Steele began the day by reminding us of the work of John Bowlby (psychiatrist and psychoanalyst) and Mary Ainsworth (developmental psychologist), referring specifically to John Bowlby's idea of the Internal Working Model (the way in which we view the world, and relationships, as a result of our early experiences).

We felt that the definition of attachment presented by Dr. Steele tied in well with the concept of reciprocity as discussed in the *Solihull Approach*: "Attachment behavior is to be viewed as part of an organizational system which utilizes internal working model(s) of self and others to guide expectations and the planning of behavior." Likewise, the *Solihull Approach* draws on the idea that the experience of being in a relationship with a reciprocal adult enables the infant to see relationships (now and in the future) as predictable and responsive to the self, providing the blueprint for later relationships.

Dr. Steele then gave us a very detailed overview of the different attachment categories: secure; insecure (avoidant/



ambivalent and resistant); and disorganized. This was illustrated with some vivid video footage of The Strange Situation (Ainsworth et al., 1978) - a research method which systematically observes a child's response to a brief separation from their caregiver - which highlighted that some children who present an apparently capable and independent way of managing separation and reunion may actually be experiencing extreme levels of distress. It was interesting to hear that it is not only the separation behavior that counts, but the way in which the child manages the reunion with their caregiver.

In addition to the observations during The Strange Situation, the cortisol levels (stress hormone) of these children were monitored via saliva samples. The results were very interesting: the insecure child's cortisol levels were found to be raised; the disorganized child's levels were very raised, even though the child may have appeared calm, and the secure child's cortisol level would lower over time even though they may have appeared distressed.

It was stressed that professionals need to be able to understand the meaning of such observations, both in terms of informing any therapeutic work we might offer a family, or as an indication of potential child protection concerns.

Both the avoidant and the resistant defenses are of great concern due to the impact on the child's long-term emotional and physical health. Research over the last few years has challenged the longstanding nature-nurture debate, in that we can no longer explain a child's way of relating purely as a consequence of their genetic inheritance. The more recent evidence has shown that the way a child is treated in their early years has a powerful influence on their development and later personality functioning. Numerous researchers have shown that nurture goes on to become nature in that our brain structure actually

changes as a consequence of our external experiences (Schoore 2001a&b, Glaser 2000).

Dr. Steele and her husband, Howard Steele, began their own research study (the London Parent-Infant Project) using The Strange Situation. The research study involved 100 mothers and fathers expecting their first born children who have now been followed up into their eleventh year to look at the longitudinal effects of their early attachment relationships.

As expected, the securely attached children were consistently described as "cooperative, popular with peers, resilient, and resourceful in the face of conflict." The avoidant/ ambivalent children were described as "antisocial, bullies, emotionally insulated, and needy of comfort and attention." The resistant children were said to be "tense, impulsive, passive, helpless, needy of comfort, and were often the most likely to be bullied."

Finally, the children with a "disorganized" attachment system, unlike the insecurely attached children, did not seem to have developed any defenses, helpful or unhelpful, to assist them in the face of anxiety. Their behaviors tended to be "odd, bizarre, or stereotyped"; their play having a chaotic feel to it including catastrophic fantasies, and relationships tending to be very impoverished. Research (Carlson 1998, Perry et al., 1995) has shown that there is a link between infant disorganization and dissociative symptoms in adolescence. Survival for these children is achieved at the cost of a sensitized or compromised neural network.

Of great interest for those of us working in the area of infant mental health is the question: "Is it possible to predict the nature of a child's attachment style before the child is even born?" This is a question that Drs. Steele and Steele address within the London Parent-Infant Project.

Prospective parents were assessed using the Adult Attachment Interview (AAI). This explores the coherence of parents' stories about their childhood, and their experience of being parented, and their ability to reflect and make meaningful sense of these, however painful. The emerging findings from the research project were that patterns of attachment styles were intergenerational in 75% of the participants. In other words the category of attachment in the child is predictable from the category of attachment of the parent.

Continuing on from this, Dr. Steele discussed how the parents who were most reflective tended to have a securely attached child. These parents were considered more able to encourage meaningful connections between their internal and external worlds, and as a consequence their behaviours were more predictable, their communication more straightforward, and their ability to empathize with their child's view on things was enhanced. Therefore, reciprocity would seem to be one of the processes by which reflective functioning leads to a secure attachment.

This raises the question of how to design an intervention service aimed at improving outcomes of the children of these adults with attachment difficulties. Dr. Steele suggested that the concept of "reflective functioning" could be a therapeutic aim for such an intervention. Given that we know that early experiences become "hard-wired" (Perry et al., 1995) it seems reasonable to ask whether adults whose attachment styles are anxious or avoidant can achieve this? If "cells that fire together wire together" (Courchesne et al., 1994) into a sensitized and compromised neural network, will they also be able to develop a capacity for reflective functioning in adulthood? However, Dr. Steele also suggested that "at no time of life is a person impermeable to adversity or to favorable influence." In other words, the plasticity of the brain across the lifetime may allow for

therapeutic goals targeting the developing brains of the next generation to be achieved.

The research evidence around the plasticity of the brain in early development also implies that the earlier the intervention the greater the impact; in fact, the earlier the better. Therefore, Dr. Steele, by implication, seemed to be suggesting that an early intervention aimed at improving reflective functioning is likely to have an impact on attachment.

Dr. Steele's current research endeavour investigates attachment representations in late placed adopted children and the adopters of these hard to place children (Steele et al., 2003). This study has followed 65 families who adopted older children from placement to two years post placement and has important implications for matching and measuring adaptation of newly adopted children in terms of attachment.

Dr. Steele then described "The Story Stem Assessment" (Hodges et al., 2000 & 2003) which is an assessment tool for children aged 4-8 years, which looks at the mental representations of their attachment relationships. This research has been used to track in detail the changes in maltreated, older children's expectations and perceptions of family life as they settled into their adoptive families. The children were assessed very early on in their adoptive placement and again yearly, over the next two years.

The outcome of the study showed that these children, when in a more positive environment, were able to develop internalized images of more reliable, nurturing parental figures which led on to them being able to develop improved relationships at home and at school. Bearing in mind that a child may have had numerous placements, it is important to remember that the child will also have numerous internalized images of parents which can help us to understand the inconsistency of a child's

behavior even when the child has been in a nurturing placement for many years.

Factors that were found to help the maltreated children to develop more trusting relationships included the adopters' reliance on their own earlier experiences of parental figures, either those who had secure childhoods or those who had "earned" secure status through their ability to reflect on their early experiences of loss, and through support of other adults or later relationships. Children placed with adopters who had unresolved attachment issues were found to make the least progress. The link between reciprocity and this process of reflective functioning or mentalization is clear.

The researchers found that secure adoptive mothers seemed better able to manage the late placed, difficult children. Although this understanding could be very helpful for social workers when thinking of appropriate placements for children, this then leaves the dilemma as to whether the insecurely attached adoptive mothers should then be given the younger, less disturbed children!

Dr. Steele's presentation supports the hypothesis that practitioners using the *Solihull Approach* in their practice with families are already delivering a service that will improve the chances of young children developing secure attachment behaviors. However, there is much scope for the development of other earlier intervention services targeting reciprocity to improve attachment, possibly using media, such as video feedback as a tool for focusing on the relationship, perhaps as early as ten days or six weeks of age.

Interesting questions were raised with regard to a link between attachment disorders and a subgroup of children who present with features of ADHD or ASD, but who do not strictly conform to a clear diagnosis of either. For example, if a child's attachments are in disarray it will be hard for that child to sit down, stand still, or concentrate. A

secure infant, at times of distress, has only one consideration, which is how to alert the parent for proximity; whereas, the insecure infant, in contrast, has to also consider the parent's response.

Finally, some thoughts for future consideration: Dr. Steele's lecture highlighted the distinction between secure and insecure as well as organized and disorganized early attachments. Therefore, rather than treating attachment as the former, i.e. falling into two dichotomous groups, perhaps we should be reflecting on the different interventions one might use for the three groups of insecure attachment styles.

Dr. Steele's presentation was rich in its illustration of attachment and was an opportunity for those present to broaden their understanding of the theoretical context in which the Solihull Approach stands. We hope that practitioners will be able to see that their work, as informed by the Approach, represents a practice link to this theoretical landscape.

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## LITERATURE MONITOR

Please note that these are listings for information and do not imply recommendations.

### Articles

Sharp, H.M. & Bramwell, R. (2004) "An Empirical Evaluation of a Psychoanalytic Theory of Mothering Orientation: Implications for the Antenatal Prediction of Postnatal Depression." *Journal of Reproductive and Infant Psychology* 22 (2): 71-89.

### Books

Boswell, S. (2004) *Understanding Your Baby*. London: Jessica Kingsley.

How do you decide whether to breast feed your baby and what are the emotions involved for mother and baby when the baby rejects a feed, or when breast feeding stops? What happens when a baby starts moving around on its own? What if your baby's distress makes you feel that you cannot cope? This book takes the reader through the entire first year of a baby's life, anticipating parents' questions and covering topics ranging from parental feelings during pregnancy, to a ten-month-old's sociability and relationships with other children.

Gustavus-Jones, S. (2004) *Understanding Your One Year Old*. London: Jessica Kingsley.

How does a one-year-old's mind and personality develop and grow? How does your role as a parent change when your baby starts to walk, talk, and really explore the world around her? How do you support and understand your very young child as his independence increases and he starts to become a toddler, beginning to learn to dress himself, share toys and play with other children. Sarah Gustavus Jones offers guidance, reassurance, and sensitive exploration of the central issues you can be aware of as your child's physical and emotional needs develop and change.

Miller, L. (2004) *Understanding Your Two Year Old*. London: Jessica Kingsley.

What makes children in their "terrible twos" behave as they do? How can parents decide when their child is ready for daycare, and manage their child's transition to a trusted child minder? Lisa Miller guides parents through their two-year-old's development, from how to deal with a "bossy boots" to understanding the central importance of toys, and the development of language and nonverbal communicative skills. She describes ways in which parents can help a young child express or resolve difficult feelings or jealousy, come to accept and welcome a new-born sibling, and negotiate friendships.

Sansone, A. (2004) *Mothers, Babies, and their Body Language*. London: Karnac Books.

This volume explores the complex interaction and the importance of early communication between mother and baby from pregnancy to the first early months of development. It provides a rich and detailed study of this earliest relationship, and makes a significant and valuable contribution to this area of the mental health field.

Marcelli, D. (2000) *La Surprise: Chatouille de l'Ame*. Paris: Albin Michel.

Mellier, D. (2004) *L'Inconscient a la Creche: Dynamique des Equipes et Accueil des Bébés*. Ramonville Saint-Agne: Editions Eres.  
[www.editions-eres.com](http://www.editions-eres.com)

Kaes, R. & Faimberg, H. (2003 - new edition) *Transmission de la Vie Psychique entre Générations*. Paris: Dunod.

## Continued from Page 29

### *Availability*

To purchase a TOTS CD, send a request to [j.kirkland@massey.ac.nz](mailto:j.kirkland@massey.ac.nz). The cost recovery price is approximately US\$20 per CD, including postage. People may burn additional copies of this CD for distribution, as long as it is done for cost only. Alternatively, you can download either the full version (with video segments) or the short version (without video segments) from our Web site at <http://www.suchandsuch.biz/tots>. Please be aware that the full version is very large and a high-speed connection is recommended. The short version can be downloaded quickly and provides a

good overview of the entire set-up with all features operational.

### *TAS45*

Within the ECLS-B study, home-based (stranger) visitors collected toddler-related data during a visit lasting upwards of 90 minutes. During these activities there were many opportunities to notice the ways in which the toddler got along with the primary caregiver, usually a mother. As the acronym suggests TOTS was designed for "toddlers." In ECLS-B they were around 24 months of age. However, we are of the view that this range could be extended to between 18-30 months or even 15-33, though the broader range has not been validated. When designing

this instrument the brief was simple and direct: to have a tool ready for use that could be completed in ten minutes, after the observation of course. Further information about TAS45, including hard-copy paper-based, or computer-linked stand-alone, or web-based access, scoring and analyses is available from John Kirkland ([j.kirkland@massey.ac.nz](mailto:j.kirkland@massey.ac.nz)).

End note: It is also possible to analyze data obtained from the Attachment Q-Sort, with either the earlier 100-item version or the more recent 90-item version, using the profiling method noted above.

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