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## **“BABY WORRIES”**

A randomized controlled trial of mother-  
infant psychoanalytic treatment

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**Karolinska  
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To the future of all the babies and mothers  
who generously and courageously  
took part in the study

## ABSTRACT

**Aims:** This thesis had three aims. (1) To explore a new treatment method of “baby worries” or mother-infant relational disturbances; mother-infant psychoanalytic treatment (MIP). The exploration focused on clinical applicability and underlying theory. (2) To investigate a method of assessing infant functioning by a mother-report questionnaire on infant social and emotional functioning. (3) To compare outcomes of MIP treatments with the usual Child Health Centre care (CHCC) in a randomized controlled trial (RCT) that included investigating moderating effects of patient and treatment factors.

**Material/Methods:** Aim (1) was approached by investigating tape-recorded single-case vignettes of MIP treatments from the perspectives of psychoanalytic and semiotic theory and infant behavioural research. Aims (2) and (3) were approached by an RCT with a quantitative between-group comparison of MIP and CHCC. The sample consisted of 80 mothers and infants below 1.5 years, where the mother reported baby worries. They were recruited from Child Health Centres in Stockholm, or advertisements at parenting internet sites and the delivery ward and the nursing centre of the Karolinska University Hospital. The dyads were randomized to CHCC or MIP. MIP treatments were conducted by psychoanalysts within the Mother-Infant Psychoanalytic Project of Stockholm (MIPPS). Follow-up assessments were made after six months.

**Instruments:** The Ages and Stages Questionnaire: Social Emotional (ASQ:SE), the Emotional Availability Scales (EAS), the Edinburgh Postnatal Depression Scale (EPDS), the General Severity Index (GSI) of the Symptom Check List-90, the Parent-Infant Relationship Global Assessment Scale (PIR-GAS), the Swedish Parental Stress Questionnaire (SPSQ), CHC and paediatrician records, and patient and treatment factors collected during interviews.

**Results:** (1) The theoretical discussion of MIP treatment focused on how analyst and baby communicate. Infant research findings seemed to support clinical experiences that an infant may understand the emotional aspects of the communication with the analyst. Semiotic theory was used to describe the different communicative levels. Psychoanalytic theory was used to explicate the therapeutic action of MIP. It was found to consist in the analyst’s “holding” or “metabolizing” the anxieties of mother and baby, and in translating their communication into more comprehensible messages. Finally, it was found that therapeutic experiences with mothers and infants may widen the therapist’s sensitivity to the non-verbal layers of adult patients in treatment.

(2) The methodological study of the questionnaire on baby functioning, the ASQ:SE, was performed on the sample’s pre-treatment scores. It demonstrated the close links of the ASQ:SE with mother-reported psychological distress (EPDS, GSI, SPSQ) but not with external ratings of baby functioning (EAS, PIR-GAS). This was especially the case for depressed mothers. The study pointed at problems with measuring infant functioning in clinical samples and to the need of developing valid instruments.

(3) The RCT showed that MIP, as compared with CHCC, yielded significantly better Treatment by Time effects on the EPDS, maternal sensitivity (EAS), and the PIR-GAS, nearly significant effects on the SPSQ, and non-significantly better effects on the ASQ:SE, the GSI, and the remaining EAS dimensions. Qualitative assessments, so-called ideal types, of mothers and babies made pre-treatment were shown to moderate outcomes. “*Participator*” mothers improved their sensitivity (EAS) to a significantly greater extent from MIP than from CHCC. A contrasting but non-significant pattern was found among the “*Abandoned*” mothers. “*Affected*” babies improved their PIR-GAS scores, and their mothers improved their sensitivity (EAS), significantly more from MIP than from CHCC.

**Conclusions:** MIP seems well suited for mothers intent on participating in psychoanalytic work and who feel they somehow play a part in the baby worries. For those who are anxious or in partner conflict, therapy needs to be more supportive. Affected babies seem more helped by MIP than by CHCC, probably due to MIP’s direct baby address. Further studies need to compare the clinical efficacy and theory of MIP with other treatment modes. Its long-term effects also need to be investigated.

**Keywords:** Mother-infant psychotherapy, psychoanalysis, attachment, ASQ:SE, EAS, EPDS, PIR-GAS, SCL-90, SPSQ, ideal types

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## LIST OF ABBREVIATIONS

AFC	The Anna Freud Centre, London (p. 2)
ASQ:SE	The Ages and Stages Questionnaire: Social Emotional (p. 31)
BDI	Beck Depression Inventory (p. 16)
CHC	Child Health Centre (in Swedish: BVC) (p.1)
CHCC	Child Health Centre care (p.1)
DC 0–3:R	Diagnostic Classification ZERO TO THREE: Revised edn. (p. 3)
EAS	The Emotional Availability Scales (p. 32)
EPDS	The Edinburgh Postnatal Depression Scale (p. 6)
GSII	The General Severity Index of the SCL-90 (p. 32)
ICC	Inter-Correlation Coefficient (p. 4)
MIP	Mother-Infant Psychoanalytic treatment (p.1)
MIPPS	The Mother-Infant Psychoanalytic Project of Stockholm (p. 2)
OMIT	Overarching Maternal Ideal Types (p. 37)
PIP	The Parent-Infant Psychotherapy Project (Anna Freud Centre) (p. 2)
PIR-GAS	The Parent-Infant Relationship Global Assessment Scale (p. 3)
RCT	Randomized Controlled Trial (p. 1)
RF	Reflective Functioning (p. 39)
RPCL	The Relational Problems Checklist (p. 3)
SCL-90	Symptoms Checklist -90 (p. 32)
SPSQ	The Swedish Parental Stress Questionnaire (p. 31)
WWW	Watch, Wait and Wonder mother-infant psychotherapy (p. 9)



# 1 PREFACE

## A Cradle Song

Sleep, sleep, beauty bright,  
dreaming o'er the joys of night.  
Sleep, sleep; in thy sleep  
Little sorrows sit and weep.

Sweet babe, in thy face  
Soft desires I can trace,  
Secret joys and secret smiles,  
Little pretty infant wiles.

.....

From thy cheek and from thy eye,  
O'er the youthful harvest nigh,  
Infant wiles and infant smiles  
Heaven and Earth of piece beguiles.

(William Blake ca 1790/1994)

How does the infant experience the world? What feelings do the people around him evoke? Why do his feelings change often and dramatically? For long, man has viewed such questions with disinterest or prejudice. One exception was the poet William Blake who, two centuries ago, portrayed the infant's "contrary states" of mind. This thesis investigates when such states turn into "baby worries", that is, when babies cry, refuse the breast, seem depressed, or will not fall asleep. It also centres on their mothers who feel depressed, anxious, or uncertain about motherhood. It investigates mother-infant psychoanalytic treatment (MIP; Norman, 2001, 2004) and compares it with the usual Swedish Child Health Centre care (CHCC). The thesis germinated as I trained with the creator of MIP, Johan Norman, and became intrigued by its results and the theoretical issues they raised. By which mechanisms and communication modes were improvements brought about? How could we explain when improvements did not occur? The questions are put forward in Paper I. Experiences with MIP also clarified mother-infant-like interactions with my adult patients, a topic approached in Paper II. This led to further ideas on the concept of containment (Bion, 1970), that is, how the therapist and mother handle anxiety in the patient and the baby, respectively.

A public debate highlighted the need to investigate psychotherapeutic methods with transparent scientific procedures. Truly, instruments might be limited in capturing outcomes relevant to a psychoanalytic treatment, but demonstrating its evidence was also vital. I devised a Randomized Controlled Trial (RCT), using sound measures that might be able to capture relevant treatment effects. Johan Norman welcomed the idea and I asked Prof. Per-Anders Rydelius at the Child and Adolescent Psychiatry unit of the Department of Women's and Children's Health at Karolinska Institutet, to be my main supervisor. Prof. Rolf Sandell and Associate Prof. Andrzej Werbart, psychotherapy researchers and psychoanalysts, agreed to become assistant supervisors. At a course at the Research Advisory Board of the International Psychoanalytical Association, I met Prof. Peter Fonagy, Freud Memorial Professor of Psychoanaly-

sis at the London University College, research director and chief executive at the Anna Freud Centre (AFC). He invited me to collaborate with the Parent-Infant Psychotherapy project (PIP) at the AFC to develop assessment methods and exchange research experiences. Michelle Slead, research psychologist of the PIP, thus became my research partner.

I then approached the psychoanalysts of the Mother-Infant Psychoanalytic Project of Stockholm (MIPPS), and the nurses at four Stockholm CHCs and the nursing centre of the Karolinska University Hospital. The nurses, whom I had reached through Lotta Lindfors, R.N. BSC in Pediatric Nursing in the Child Health Care Services of the Stockholm County Council, confirmed they met many troubled mother-infant dyads. They willingly agreed to take part in my project.

To acquire the distance and objectivity necessary for research, I left the MIPPS group in 2005. Interviews were made from October 2005 to January 2008. During data collection, I became interested in methodological problems. Mothers' ratings of the baby's functioning sometimes disagreed with my impressions of the little one. When further discordances emerged between their ratings and observers' ratings of mother-baby interactions, it became essential to study these maternal ratings. This resulted in Paper III, a validity study of a mother-report questionnaire on infant functioning, the ASQ:SE, written with Michelle Slead. When data were collected, Papers IV and V on outcomes and therapeutic specificity were written with Rolf Sandell. This work included important help by Andrzej Werbart to find appropriate methods for the qualitative analyses.

At the start of the RCT, Johan Norman passed away. This was a heavy blow to us all working close to him. Maybe the very nature of MIP, of assisting life in its infancy, gave us all some extra zest to continue the project. It was so fascinating to treat infants and to get to know more about theory and practice that there was really no return. The research project continued as planned, and the MIPPS analysts went on with weekly peer supervision seminars that safeguarded the quality of the treatments.

All mothers gave their written consent to participating in the study and allowed me to report findings anonymously. I have taken great care to conceal and confound details thus making any identification impossible. Of course, all names are fictitious. When writing in a general sense, I often refer to the baby as "he". The purpose is simply to facilitate reading by contrasting with the maternal "she".

## 2 INTRODUCTION

### 2.1 BABY WORRIES – A COMMON CLINICAL PROBLEM

Some babies do not sleep well. Others reject the breast or will not let it go. Some seem sad and depressed, while others appear anxious and restless. Some cling to their mothers, whereas others avoid looking into their eyes. Then there are babies who seem unaffected in the eyes of an outside observer, but whose mothers worry anyway. These mothers are often depressed, anxious, or uncertain and ambivalent about motherhood. In Sweden, this often leads them to seeking help at the CHC, where almost all mothers with newborns rely upon a health care program run by nurses and paediatricians or general practitioners. Anyone taking care of a mother with such worries is faced with the question: who is the patient(s)? Is it the mother, the baby, or both? One reply is, “There is no such thing as an infant. Whenever one finds an infant one finds maternal care, and without maternal care there would be no infant” (Winnicott, 1975, p. XXXVII). According to Beebe & Lachmann (2002) it seems impossible to study a baby or his mother in isolation but only their “co-constructed disturbance”. Thus, an infant could not be said to have a psychic disorder but only a disordered relationship. On the other hand, we know that babies have well developed perceptive capacities (Bremner & Slater, 2004; Nadel, 2005; Stern, 1985; Tronick, 2007c) with which they actively interpret the environment. They are not passive receivers of maternal care but seem to react differentially to it. Therefore, in studying baby worries the uniqueness of the baby’s symptoms must also be taken into account, as well as the mother’s personal suffering.

For this study, the term “baby worries” was considered to reflect disturbances within each of the dyad’s two participants as well as between the two. Thus the term, about as encompassing as “mother-infant relationship disturbances” (Zeanah, 2000), was used to cover mothers who worried about their baby’s functioning, themselves *qua* mothers, and/or about their relationship with the child. The next step was to find a diagnostic system that might capture this multidimensional clinical picture.

### 2.2 DIAGNOSTIC CONSIDERATIONS. DC 0–3, AND DC 0–3:R

Psychiatric diagnostic systems such as the ICD-10 (1992) and the DSM-IV-TR (DSM-IVTR, 2000) cover general psychiatric symptoms in adults, adolescents, and children but contain few specific infant diagnoses (Rosenblum, 2004). Their ability to describe relational factors is also limited in that they view “disorders as belonging solely to the individual” (Guedeney et al., 2003, p. 315). In contrast, the DC 0–3 (ZERO-TO-THREE, 1994) and the DC 0–3:R (ZERO-TO-THREE, 2005) was developed by infant psychiatrists and psychologists who aimed at detailing infant symptoms and avoiding the overuse of causal diagnostic terms. Descriptions of parent-infant relationships were placed in a separate axis. To summarize, the DC 0–3:R classifies “mental health and developmental disorders of infancy and early childhood” as well as the nature of the relationship in which the infant is involved.

In the DC 0–3:R, Axis I taps primary infant diagnoses such as regulatory, sleep, or feeding disorders. Axis II covers the relational dimension by two subscales: the Relational Problems Checklist (RPCL) describes relations in terms of “overinvolved”, “angry/hostile”, etcetera, while the Parent-Infant Relationship Global Assessment Scale (PIR-GAS) “measures overall relationship functioning, without regard to whether relationship impairments arise from the

infant, the caregiver, or the unique fit between the two” (Boris, Zeanah, Larrieu, Scheeringa, & Heller, 1998, p. 296). Axis III concerns medical and developmental disorders, and Axis IV psychosocial stress factors. Axis V taps the child’s emotional and developmental functioning.

Most studies concern the DC 0–3. Two infant psychiatrists (Guedeney et al., 2003) who studied records of children aged 0–37 months (mean 18) referred to infant mental health centres, reached an inter-rater agreement ( $\kappa$ ) on Axis I diagnoses of .49 – .73. A similar Danish figure (Skovgaard, Houmann, Christiansen, & Andreasen, 2005) was .72. PIR-GAS ratings were investigated in a retrospective chart review study (Boris et al., 1998), in which four experienced clinicians achieved an inter-correlation coefficient (ICC) of .96. The PIR-GAS is now used increasingly (Cordeiro, 1997; Knapp, Ammen, Arstein-Kerslake, Poulsen, & Mastergeorge, 2007; Skovgaard et al., 2008) and has been shown (Thomas & Guskin, 2001) to correlate significantly with DC 0–3 diagnoses and CBCL ratings (Child Behavior Checklist; Achenbach, 1991). Its capacity to predict mother-infant interaction and child internalizing symptoms was demonstrated (Aoki, Zeanah, Heller, & Bakshi, 2002) on a high-risk sample of children aged 20 months. PIR-GAS scores at 1.5 years were predicted by child nurses’ notes of concern during the baby’s first months (Skovgaard et al., 2008). To my knowledge, the PIR-GAS has not been used for measuring psychotherapy outcome.

In conclusion, though the DC 0–3:R is rather new and awaits further investigation, it seems to be the best available method for diagnosing infant mental health and mother-infant relationship disorders.

### **2.3 PREVALENCE OF BABY WORRIES**

No safe prevalence figure exists for mental health problems among infants. “Epidemiological studies of children 0–3 years of age are remarkably few and the frequency and course of general psychopathology in this age is unknown” (Skovgaard et al., 2005, p.197). This is a result of the difficult task of defining disorders in infants, who develop rapidly and in which physical and psychic factors are difficult to separate. These problems with defining and assessing infant dysfunction make prevalence figures uncertain. The Copenhagen study (Skovgaard et al., 2007) gathered data from 6090 babies. In a subsample of 1.5-year-olds, 19% received a DC 0–3 Axis I diagnosis, mostly regulatory disorders such as hyperactivity and disorders of conduct and emotions. Eight percent had Axis II relationship disturbances, mostly of the under-involved type. They had been followed since birth by nurses who noted concerns about the individual child’s development. Almost every child received notes which predicted, 1.5 years later, delays in cognitive functioning, deviant language development and aberrations in social communication and neuro-developmental disorders.

A non-psychiatric sample of children of 2-5 years (Lavigne et al., 1996) indicated pathological cases in about 5% among the youngest, as assessed by the CBCL or the DSM-III. Egger and Angold (2006) abstracted data from studies on preschoolers (2-5 years) and found a prevalence of “any psychiatric disorder” of 15%. These studies focus on children older than in this study but, to summarize, one may guess that infant mental health problems are about as frequent as maternal postnatal depression. The first problems to emerge are the regulatory problems; sleep problems, hypersensitivity, poor self-calming, irritability, and dysregulated moods and states. They often vanish during development but may also herald future emotional problems (Degangi, Breinbauer, Doussard Roosevelt, Porges, & Greenspan, 2000).

Their progress also depends on family adversity (Becker, Holtmann, Laucht, & Schmidt, 2004) and maternal emotional availability (Little & Carter, 2005). Feeding problems may reflect regulatory problems but also mother-infant relationship difficulties, and sleep problems may mirror a disordered relationship.

Depression occurs among deprived infants (Spitz, 1965) but also among those in normal medical and social conditions (Keren & Tyano, 2006). In addition, many moods and behaviours are not easily defined but, nevertheless, cause severe parental concern and infant suffering. These are the babies who cry, fret, cling, and avoid maternal eye-contact, or who seem unhappy, displeased or angry. For studies on infant symptoms and diagnoses, see Frankel, Boyum, & Harmon (2004), Keren, Feldman, & Tyano (2001), Lieberman, Barnard, & Wieder (2004) and Maldonado-Duran et al.(2003).

In contrast, mental health problems of mothers have been more thoroughly investigated. A limited period of mood swings, the “baby blues”, afflicts about every second mother during the first postpartum week (Henshaw, 2003). Though it has been shown to be an independent risk factor for postnatal depression (Henshaw, Foreman, & Cox, 2004), it is not regarded as a psychiatric disorder. Postnatal depression, on the other hand, afflicts 8-15% of mothers (O'Hara & Swain, 1996; Wickberg & Hwang, 1997) and may entail suffering similar to depressions during other periods in life. Postnatal psychosis, finally, a serious psychiatric disorder, afflicts 1-2 ‰.

To sum up, though the prevalence of all the three areas that define baby worries is not known, the figures on maternal and infant mental health problems seem high enough to warrant systematic treatment studies.

## **3 TREATMENTS OF BABY WORRIES**

### **3.1 CHILD HEALTH CENTRE CARE (CHCC)**

A century ago, the “Milkdrop” units were created in Sweden to assist mothers with babies. The aim was to decrease mortality by improving hygiene and nursing habits. They were followed by the Child Health Centres (CHC, “BVC” in Swedish), which offer checkups from birth to six years of age. Nurse calls follow a schedule; weekly the first month, monthly up to four months, and every second month during the rest of the first year followed by checkups at 1.5, 3, 4 and 5 years. Checkups comprise weighing and measuring the baby, providing inoculations, nutritional advice, and paediatric checkups. In Stockholm, almost 100% of newborns and infants are supported by the CHCs (Blennow, Lindfors, Ekroth de Porcel, Lindstrand, & Örténstrand, 2007).

Changes in urbanization, social mobility, and family patterns have moved parents, geographically and emotionally, away from their families of origin. Thus, the CHC nurse has become central in helping parents with baby worries. Her developmental guidance (Lojkasek et al., 1994) on the child’s physical, psychical, and social development is the usual way of taking care of baby worries in individual contacts and/or in parental groups (Mittag, 2009). She seeks to promote a secure attachment and to detect depression, often by using the Edinburgh Postnatal Depression Scale (EPDS; Cox, Holden, & Sagovsky, 1987). If she finds that problems need further attention, she may increase the frequency of calls or offer an appointment to a paediatrician or a psychologist from the child psychiatric team. Some CHCs offer infant massage (Field, 2000) and International Child Development Programmes (Hundeide, 2007).

### **3.2 PSYCHOTHERAPEUTIC TREATMENTS**

#### **3.2.1 Mother-infant psychotherapy**

Many innovators of parent-infant therapies were psychoanalysts or analytically informed therapists. Today, several integrate psychoanalysis with infant research and attachment and intersubjective theories. This section accounts for the methods of the pioneers. Inevitably, important names need be omitted and descriptions will be too brief to do full justice to each method. Non-psychotherapeutic methods, such as infant massage, will not be covered here.

Selma Fraiberg (1989) described three intervention modes: brief crisis interventions, interaction guidance-supportive treatments, and infant-parent psychotherapy. The first was used for problems arising from a “circumscribed set of external events and when the parents’ psychological capacities suggest that they can make use of a brief focused intervention” (p. 60). One example was a well-functioning couple who attached anxiously to their newborn due to unresolved mourning of an earlier baby who died unexpectedly. In contrast, interaction guidance aimed more at guiding and scaffolding parents who have a limited psychological mindedness.

Infant-parent psychotherapy, finally, was used when the baby reminded his parents of “an aspect of the parental self that is repudiated or negated” (Fraiberg, 1989, p. 60). Such an aspect might be a childhood memory of, for example, a rejecting parent or a competing sibling. While unconscious, this “ghost in the nursery” influenced the parent’s interactions with the baby who got engulfed in the parental neurosis and, as a result, might show emotional disturbances. One example was 5.5-month-old Mary, a listless girl vaguely attached to her mother,



Mrs. M. During therapy, it appeared that Mrs. M. had been abandoned herself due to her mother's postpartum psychosis. An extra-marital affair also struck her with an obsessive guilt that wiped out any joy at being a mother. A hypothesis was formed: "when this mother's own cries are heard, she will hear her child's cries" (Fraiberg, 1980, p. 109). The therapist promoted the emerging mother-baby attachment as Mrs. M began talking about the abandonment and emotional poverty during her childhood. The aim was to control the disease so that "the pathology which had spread to embrace the baby" (p. 111) could be withdrawn from the child.

Fraiberg thought of the baby as a "catalyst" (1989, p. 53) who intensified the emotional climate in the sessions and engaged "in an eloquent dialogue with his family and with us" (p. 51). The therapist encouraged the mother-baby attachment rather than entering as a specific relational figure for the child. The intention was to bypass the mother's customary perceptions as they were influenced by her "ghosts". This, in its turn, would improve the mother-child relationship. Her present-day followers explore parental "negative attributions" onto the child (Silverman & Lieberman, 1999), as when a mother reproaches a baby for his whining, reproaches emanating from her feelings of being a cry-baby herself. When the little one internalizes her attributions and his self-image becomes that of a "whiner", the mechanism is labeled projective identification (Klein, 1946; Bion, 1962, 1967). This group performed randomized outcome studies of therapies (Lieberman, Weston, & Pawl, 1991; Lieberman, Van Horn, & Ippen, 2005), to be referred later. A recent monograph describes parent-infant psychotherapy in depth (Lieberman & Van Horn, 2008).

The "Geneva school" (Cramer & Palacio Espasa, 1993) also think infantile symptoms express "a repressed tendency in the parent" (p. 85). This "core conflictual relationship" between the baby and the repressed part of his parent is enacted in therapy and becomes its focus. The pathogenic mechanism may originate in the mother's anxiety and guilt. If she has not managed to mourn her own childhood injuries, her resentment may colour what she wants to obtain from her baby. Such "narcissistic scenarios" (Manzano, Palacio Espasa, & Zilkha, 1999) make it hard for her to see the baby in his own right, which may involve him in a relationship he cannot comprehend. To open up for the child's development, the therapist confronts the mother about her misperceptions. By a "joint focal attention" (Cramer, 1998, p. 156) on baby and mother, he observes the baby's reactions to the mothers' emotions. Therapy should promote insight about "the mother-infant *relation* in order to liberate it from projective distortions" (Cramer & Palacio Espasa, 1993, p. 84). The baby is thought capable of grasping the mother's unconscious, but the authors merely name such instances "chronological coincidences" (p. 172). We now turn to an author who went further and even attributed verbal comprehension to the baby.

### 3.2.2 The approach of Françoise Dolto

In her consultations, Dolto tried to reach the infant with interpretations which she seemed to assume he also might understand verbally. For example, she told a newborn child: "Everything was OK when you were inside Mom's tummy. Then you were born... Mom had milk and you were calling for it... One day you heard, together with Mom, it was Dad who told you, that things weren't going well at home with your siblings. Maybe you told yourself 'Poor little Mom, I'd better get back into her tummy, 'cause everything went well as long as I was there'" (Dolto, 1985, p. 211). She suggested this baby's refusal to suckle resonated with

the mother's mourning her own mother's recent death and worries about the home situation. She thought the baby intuitively knew about these emotional connections. What is more, Dolto indicated that the girl understood her verbally. She asked the girl to nod if she had understood her intervention and took her head movement as a confirmation.

### **3.2.3 The approach of Serge Lebovici**

Serge Lebovici headed the Centre Alfred Binet in Paris. His interventions (Lebovici & Stoléru, 1983) were akin to therapeutic consultations (Winnicott, 1971) and brief crisis interventions (Fraiberg, 1989). He was prone to give the mother, without beating about the bush, his points of view. He once told a mother whom he thought was holding her baby insensitively, "If I were your baby, Madame, I wouldn't feel well in that position" (p. 267). This may seem blunt but rather indicates Lebovici's warmth and "hysterical identification" (p. 361) with the baby and his insights into the mother's difficulties in comprehending the baby (Casanova, 2000).

Lebovici thought babies "hear the affective values of words and organize their proto-representations by their interactions... they thus contribute to creating the mother" (Lebovici & Stoléru, 1983, p. 363). In contrast to Dolto, he did not assume a verbal comprehension in the baby. He often used "metaphorising interventions" (Lebovici, 2000) portraying what he assumed went on between mother and infant. He emphasized that they helped improve the mother's symbolic capacities and liberate such dawning capacities in the baby.

### **3.2.4 The PIP team at the Anna Freud Centre**

The clinical method of the PIP team (Baradon et al., 2005) springs from attachment theory, but influences from Winnicott's and Bion's theories (see 4.1.6) are also evident. Therapists focus on the baby, as when they let an intervention represent how the baby experiences himself and the other (p. 29). The aim is not so much to interpret the infantile mind to the baby but to promote his efficacy in engaging his parent's care. When the therapist engages directly with him, she aims at "scaffolding" his communications and represent them to the parents. The technique "supports beginning mentalization and emotional regulation" (p. 75) in the child. (By mentalization is meant the ability to understand the mental state and intentions of oneself and others). The therapist closely observes the infant's contact with her as evidenced by his voice, facial expressions, and eye contact. The need to be aware of countertransference, that is, the therapist's emotional reactions to each individual in the session is emphasized. Video-recordings are often used (Woodhead, Bland, & Baradon, 2006; Jones, 2006).

### **3.2.5 Interaction guidance and similar techniques**

Every mother-infant treatment probably contains elements of guidance. The mother feels lost and insecure, and the therapist cannot but give her some points of view from a common sense or a professional perspective. In interaction guidance (IG; McDonough, 1995), the therapist actively uses such elements. IG was designed for socially compromised families that were often disappointed with earlier treatments. This may explain the emphasis on a non-judgmental, egalitarian attitude that brings out the family's strengths but also recognizes its vulnerabilities. IG implies that the therapist fosters a positive working alliance without bringing up too many issues that might confuse the parents. Further, she focuses on the "infant-caregiver relationship rather than on either the infant or the caregiver alone" (McDonough, 2004, p. 79). Video-recordings give feedback on how parental behaviour may affect the child.

The therapist is not reported to enter into a specific dialogue with the baby. The method has been compared in an outcome study with mother-infant psychotherapy (Robert-Tissot, Cramer, Stern, Serpa, & et al., 1996), to be reported later.

Marte Meo (Hedenbro, 1997; Vik & Hafting, 2006) also uses video-recorded parent-baby interactions to help improve communication. The therapist may for example address problems arising from the different tempi of mother and child in their interactions. Both IG and Marte Meo promote *marte meo* or “my strength”. By bringing out the possibilities inherent in the child’s problems, the therapist seeks to strengthen the parents’ and the baby’s competence in interaction. By using the video she may help the parents attend to the child’s signals, thus increasing their sensitivity. In contrast to mother-infant psychotherapy, changing unconscious (in the classical psychoanalytic sense) representations is not a primary goal. Nevertheless, such changes may come about secondarily following the therapist’s interventions.

### **3.2.6 The Watch, Wait, and Wonder technique**

This technique (WWW; Lojkasek, Cohen, & Muir, 1994) is psychodynamic but “works both at the behavioral and the representational levels“ (Cohen et al., 1999, p. 433). It is infant-led since the mother is asked to get down on the floor and observe the baby. He becomes an agent of change by inspiring the mother to observe, reflect and change her ways with him. The therapist “engages in a parallel process of watching, waiting, and wondering about the interactions between mother and infant” (p. 437). He empowers the mother to describe how she experiences and interprets the infant's play and their relationship, which allows her “to examine her internal working models of her relationship with her infant and to modify or revise them to be more in line with her new experiences” (Lojkasek et al., 1994, p. 214). (The mother’s internal working model consists of expectations about herself and her significant attachment figures. It is built on affective and detailed experiences with these figures but operates primarily outside of her conscious awareness. See Pietromonaco & Feldman Barrett, 2000). This work occurs during the second half of the session, when therapist and mother discuss what transpired between her and the baby. WWW was compared with mother-infant psychotherapy (Cohen et al., 1999; Cohen, Lojkasek, Muir, Muir, & Parker, 2002), to be reported later.

## 4 MOTHER-INFANT PSYCHOANALYTIC TREATMENT (MIP)

### 4.1 THE THEORETICAL FRAMEWORK

#### 4.1.1 Classic psychoanalytic theory

To understand MIP in relation to other parent-infant therapies, its foundations in psychoanalytic theory will be described first. Then, an account follows of its practice according to Norman (2001, 2004). The theoretical and clinical investigation of MIP within the framework of this study will be presented in section 9 on Overview and Results of Papers I and II.

The genetic or developmental metapsychological perspective in psychoanalysis assumes that the adult unconsciously expresses his childhood experiences through his character, symptoms and behaviour with the analyst. The psychoanalytic method of investigation cannot tell what actually took place in childhood; it can only be an aid in reconstructing how the patient experienced it. In contrast, infant research observes the baby directly “from the outside” and thus, it cannot be put on par theoretically with psychoanalysis (Green, 2000; Laplanche, 2007). However one might recall that at first, observational research and psychoanalytic inference were closer linked, in that Freud (1895/1950) conceptualized the genetic perspective in neurophysiological rather than psychological terms. He described the infant’s cries as “over-excitations”, that is, neuronal processes that the organism discharges via emotional expressions and screaming. When unpleasure persists, discharge is directed towards the mother and acquires “a secondary function of the highest importance, that of *communication*, and the initial helplessness of human beings is the *primal source* of all *moral motives*” (p. 318). These events constitute the baby’s primal experiences of unpleasure and of satisfaction.

In this model, the mother is vaguely described as an “extraneous” and “helpful person”. However, if we consider that Freud’s term for describing her offer to the child, “*Befriedigung*” (satiation), is rooted in “*Friede*” (peace), we realize that she not only satiates the baby’s hunger or quells his excitations, but also offers him peace by a mutual rhythm of contact and extinction of contact (Balestriere, 2003). Her *Befriedigung* is thus also a help in promoting his attachment (Bowlby, 1969) or object relatedness. Later, Freud (1900) rather uses psychological terms to describe the infant threatened by dissatisfaction. The most primitive mode of appeasing a wish is now conceived of as a baby hallucinating about the satisfying breast. When this fails, the reality principle forces him to cry for help and the mother comes to his rescue. However, her contributions in these interactions are still not clearly depicted.

#### 4.1.2 The mother-infant relation – sensuality and helplessness

Over the years, Freud describes the mother-baby relation more explicitly. The interchange with the mother affords the baby “an unending source of sexual excitation and satisfaction from his erotogenic zones... the mother, herself, regards him with feelings that are derived from her own sexual life” (Freud, 1905, p. 223). Laplanche (2007) has clarified how unconscious sexuality is enmeshed in the mother-baby relationship. His term for the link between a mother’s love for her baby and her unconscious infantile sexuality is *le sexual*. The baby fails to grasp the “enigmatic messages” (Laplanche, 1997) in maternal care because they spring from sources unknown to him and his mother alike, that is, from her unconscious sexuality. For instance, a mother may be embarrassed about her son’s delight in her breasts. This makes

nursing conflictual to her. She declares she dislikes breastfeeding, but her pride and delight is plain to see. Unconscious influences meddle with her conscious attitudes, which makes it hard for her to decide whether to nurse or not.

Freud (1925-1926) also describes the baby's helplessness, *Hilflosigkeit*, at feeling torn apart by the forces of his internal drives and the panic at being separated from his mother. Thus, he now emphasizes the impact of separation anxiety and the mechanism the baby uses to overcome it. He (Freud, 1920) describes a 1.5 year-old boy playing with a reel with a string attached. Throwing it away he says "o-o-o-o" and retrieving it he exclaims "da". This is viewed as his effort at mastering the *fort* (gone) and *da!* (there) of his mother's coming and going.

#### 4.1.3 Psychoanalytic and attachment theories – a brief remark

Attachment theory was introduced by Bowlby (1969) and developed by Ainsworth (Ainsworth, Blehar, Waters, & Wall, 1978) and many others (Cassidy & Shaver, 2008). Bowlby considered his theory rooted in psychoanalytic theory, and there have been major efforts to link them (Fonagy, 2001). Others object that attachment theory does not address the same psychic reality as does psychoanalytical theory, that is, the unconscious world (Zepf, 2006).

I would emphasize that Freud's early rendition (1895/1950) of the mother-baby relation as a biologically driven process is akin to Bowlby's account of attachment formation. Freud does not use the term attachment but it seems clear that this is what he portrays. At this time, he separates psychoanalysis from the natural sciences less clearly than later, whereas Bowlby (1988) clearly considers it a natural science. As we approach Freud's later writings, divergences between the two theories emerge more clearly. Attachment concepts like "internal working models" (Bretherton, 2005; Pietromonaco & Feldman Barrett, 2000) do make room for unconscious factors in the internal world. However, if we consider Freud's idea (1905) of the sexuality inherent in the mother-baby relation, we realize to what extent it is downplayed in attachment theory (Laplanche, 2007; Widlöcher, 2002).

#### 4.1.4 The post-Freudian development

The concept of human interaction is rather new in biology and psychology (Lebovici & Stoléru, 1983). Psychoanalytic theory had to wait for some of Freud's successors before making use of it more consistently. One example was Hermann's (1936) description of the baby's clinging for the mother and going on search away from her. Early relational trauma as a cause of psychic problems became recognized again, after Freud had downplayed it for a lengthy period. The concept of "confusion of tongues" (Ferenczi, 1949) described how parental spurious communications could obstruct child development. This might generate a "basic fault" (Balint, 1979) in the personality leading to severe psychic disorders in the adult.

The shift from a one-person (focus on the patient) to a two-person (focus on the patient-analyst interaction) psychology (Rickman, 1957) became further established in the UK. Melanie Klein (1946) conceived of projective identification as a pathological defence mechanism, by which the baby rids himself of unwanted death drive derivatives by fantasizing that he empties them into his mother. Klein's followers (Joseph, 1985; Steiner, 1993; Bion, 1970) developed this concept and suggested it also covers the patient's interplay with the analyst.

#### 4.1.5 Intersubjectivism and infant research

In the US, present-day theories challenge the once predominant psychoanalytic ego-psychology. The “intersubjectivists” are researchers and therapists investigating how the infant co-constructs (Beebe & Lachmann, 2002) his interpersonal world (Stern, 1985) with his primary caregivers. Citing experimental evidence they state that the newborn is immediately active in regulating the interactions with his caregivers. The interactions focus on vital needs and affects (Tronick, 2005) and as they unfold, mother and baby will develop ensemble their communicative symbols such as smiles, gestures, tone of voice, and words (Muller, 1996).

These authors tend to criticize Freudian theories on narcissism, therapeutic action, the unconscious, and infant development. However, if we recall the dual interpretation of the mother’s *Befriedigung* of her baby, the critique may seem a bit beside the mark. Both contemporary Kleinians and intersubjectivists realize that “the contemporary Kleinian model contains an implicit idea of the intersubjective and would not make sense without it” (Likierman, 2006, p. 368). Still, intersubjectivists rely less on analytic interpretations (Seligman, 2006), insight and conscious understanding. They rather think psychotherapeutic action relies on interactions in which patient and therapist co-create a “new and unique implicit procedure for being together” (Tronick, 2001, p. 191) or “present moments” of meeting (Stern, 2004).

#### 4.1.6 Container/contained in the mother-infant relationship

Whereas intersubjective theory and infant research played little role in Norman’s conceptions of MIP, the theories of Sigmund Freud and W.R. Bion were indispensable. Bion’s model of the infant mind ensued from his ghastly experiences in World War I (Bion, 1982) and his analyses of psychotic patients. He expanded Klein’s concept of projective identification to cover the normal traffic between the “contained” and the “container” (Bion, 1962). The “contained” represents the baby’s mental content that frightens him since he does not experience it as thoughts or emotions but as a thing attacking him from within. He is assailed by a “nameless dread” or a “fear of dying” (Bion, 1963). The container-mother helps the infant who suffers “pangs of hunger and fear that it is dying, wracked by guilt and anxiety, and impelled by greed, messes itself and cries. The mother picks it up, feeds it and comforts it, and eventually the infant sleeps” (p. 31). Bion conceives of the mother’s containment as a kind of metabolism: she so to speak digests the baby’s panic and returns it in a manageable form.

Bion’s model may be criticized; how would an infant know about death? However, the term may be seen to refer (Proner, 2009) to moments when an infant is distressed and feels there is no container. His fear of dying would consist in the experience that no one is there to help him and that he is torn apart by his fear of abandonment (Grotstein, 1990). This fear will persist until the mother transforms it into creative symbols: “Come, come my dear, it feels like the end of the world, doesn’t it”. The baby learns from these experiences and his symbolic capacity or “ $\alpha$ -function” develops. To help him in this, the mother needs enter a state of “reverie”; fantasizing or day-dreaming of the infant, letting whims and “silly thoughts” enter her mind with the aim of understanding him. It also implies receiving “the infant’s projective identifications whether they are felt by the infant to be good or bad” (Bion, 1962, p. 36). Reverie may be seen as an important aspect of the emotional state of the pregnant woman and the infant mother, the so-called primary maternal preoccupation (Winnicott, 1956).

#### 4.1.7 Semiotic theory

Imagine a baby crying. We may say that his self-preservative instinct urges him to signal his need for food. Or, in line with Freud's early theories, his neuronal over-excitations have resulted in a cry for *Befriedigung*. In attachment terms, he is creating a bond with his caregiver. In object relations terms, he is reaching out for a containing object. Whichever formulation we use, we have chosen to perceive and interpret certain *signs*. All knowledge and science rests, whether implicitly or explicitly, on a theory of signs or a semiotic theory, since signs are the building blocks for thinking; 'we think only in signs' (Kloesel & Houser, 1998, p. 10).

Semiotic theory is not confined to psychoanalysis but is a general philosophical theory of how information is transmitted and interpreted. It developed in Europe, for example by de Saussure (1916), and in the US by Peirce (Kloesel & Houser, 1998). The latter defines the sign as a "thing, which serves to convey knowledge of some other thing, which it is said to *stand for* or *represent*. This thing is called the *object* of the sign; the idea in the mind that the sign excites, which is a mental sign of the same object, is called an *interpretant* of the sign" (p. 13). Peirce uses mainly three kinds of signs; icon, index and symbol. An icon resembles concretely that which it signifies. An index also contains an injunction, while a symbol indicates a verbal message.

Freudian psychoanalysis is more known as a theory of drives than one of signs. However, Freud (1923) also regarded psychoanalysis as a "*Deutungskunst*", an art of interpreting signs, and saw repression as a "failure of translating" (Masson, 1985, p. 208) representations of things into their corresponding words. Infant therapy highlights which signs the psychoanalyst may interpret. Should he/she regard the baby's cry as a biological sign of which one can say nothing, or as a sign also to be interpreted psychoanalytically? Faced with this problem, one might recall that it applies to adult work as well. Should one neglect how the patient utters words and expresses herself through other modes, or should one consider only the literal import of her words? For a discussion on these issues, see Matthis (1997).

Ever since Lacan (1966), French analysts have approached these questions by integrating semiotic theory with psychoanalysis. Rosolato (1985) delineates two kinds of signifiers, the linguistic and the "demarcating". The latter structures non-verbal information and permits us "to orient ourselves continuously in the nuances of the information that accompany verbal communication. These are the gestures, the mimic and the prosody, which complete the functions of the word..." (p.14). Anzieu (1990) emphasizes that such signifiers always involve a human relation. A baby's cry expresses his suffering *and* the notion that the container/form cannot handle the pain. To understand his cry is the task of a parent or nurse, a paediatrician or a psychoanalyst. To the latter, semiotic theories provide a conceptual framework and played an important role in this thesis' object of developing Norman's MIP theory.

## 4.2 MIP – ITS DEVELOPMENT AND PRACTICE

Johan Norman's analyses with adults awakened his interest in mother-infant treatment. He saw it as a natural continuation of his work with adults and used the same theoretical tools, such as "Bion's theories on the relation between the early development of the mind and the mother-infant relationship" (Norman, 2001, p. 85). He offered consultations with mothers and infants at a Stockholm CHC, which he continued in his private practice and developed into the MIP method. Norman thought that a suffering baby turned her need for containment

towards him if he offered her his complete attention. Consequently, he related to her in the hope of containing her anxieties. He utilized the baby's ability to process certain aspects of language, while he was adamant that she did not understand its lexical aspects. When he described the emotions to the baby, he simultaneously drew the emotions towards himself. Thus a relation developed which he noted was marked by an infantile transference (Norman, 2004). He (Norman, 2001) analyzed a 20-months-old boy "Tim" born four months prematurely, with autistic and obsessional traits and a grossly immature language. Tim feared the analyst and seemed to feel trapped inside the consulting room and wanted to escape into Norman's glass cupboard. Although he was well aware of fears and anxieties among autistic children, Norman hypothesized that Tim dramatized early experiences in the incubator, which he transferred to the analyst. This hypothesis seemed relevant as Tim, when Norman addressed him, became calm and approached the mother. This might be interpreted as if his negative transference diminished.

A therapist practicing *ad modum* Fraiberg might focus on how Tim stirred up unconscious attitudes in the mother. He might speak of the "ghosts" that influenced their relationship, say, of her personal background to the fears that the boy might have died. A WWW therapist might focus on how she and Tim interacted. In contrast, the MIP analyst's relation with the baby is pivotal while he co-operates with the mother and prepares her "for taking care of whatever might come from the child" (Norman, 2001, p. 94) during analysis. Norman took care in promoting her "attachment and narcissism" (p. 94) and he evidently thought her problems might contribute to the baby's suffering, but he clearly focused less on her than on the baby. He wished to vitalize the mother-infant relation, which he thought came about through his containment of the baby. Later (Norman, 2004), he emphasized that the analyst-infant "dialogue" created a strong containing function also for the mother "who found courage to bring her part of the story back from repression and relocate it in the interaction" (p. 1115).

This section ends with a list of the MIP method's salient features. It formed the basis of the assessments of the analysts' adherence to MIP technique in the RCT study.

- The analyst seeks to establish a therapeutic relationship with the baby.
- The analyst assumes that the infant will use his primary intersubjectivity (Trevarthen & Aitken, 2001) to obtain containment (Bion, 1962).
- The analyst assumes that the baby processes non-lexical aspects of interventions.
- The analyst assumes that the "fluidity of the infant's personality" (Winnicott, 1941) will enable him to change faster than older children and adults.
- The analyst helps the baby to release the affects behind symptoms. In this process, he regards the mother primarily as a collaborative partner.
- In response to the analyst-baby interaction, the mother's "primary maternal preoccupation" (Winnicott, 1956) helps her to understand the baby and establish a healthier relation.
- Should the mother's personal conflicts interfere with infant development or the therapy process, the analyst will speak with her about them.
- The analyst regards the mother as more salient than the father in developing and healing psychopathology in young infants. His participation is accepted but may obscure focus on the analyst-infant and mother-infant relationships.
- Analytic containment, that is, acceptance, focus and interpretation of painful affects, are pivotal for the therapeutic process.
- Encouraging, supportive and guiding interventions do not play a major role.



## **5 OUTCOME STUDIES ON MOTHER-INFANT PSYCHOTHERAPY**

### **5.1 META-ANALYSES**

In a review of 21 studies on treatments for postpartum depression, Dennis (2004) remarked from a methodological point of view that more than half did not specify diagnostic criteria, recruitment, randomization, length of follow-up, etcetera. This made results difficult to ascertain. Interestingly, it was not apparent from the paper which studies also evaluated the infant. Singleton (2005) meta-analyzed 25 studies of interventions with parents and children up to 36 months, mostly Fraiberg's and IG methods. Sixty percent of the studies were of high or fair methodological quality. Treatment differences were small or non-significant on infant mental health and development, whereas parent-infant relationship and parent ability reached significant levels. She also analyzed moderator effects. Study quality, therapist training, and psychodynamic methods yielded better effect sizes for the index treatment. Lengthy treatments of more than 20 sessions seemed less effective, either because they were "no longer effective for older infants, the families that receive long term therapy could have more difficulties, or the effects of PIII [parent-infant interaction interventions] do not last" (p. 96).

### **5.2 SPECIFIC STUDIES**

#### **5.2.1 Mother-infant psychotherapy vs interaction guidance**

In one study (Robert-Tissot et al., 1996) 88 mothers and infants with a mean age of 16 months were randomized to mother-infant psychotherapy or IG, with six sessions on average. Self-rated maternal depressions were mild to severe. Follow-ups were made post-treatment, six months afterwards (73% of the initial sample) and, for half the sample, 12 months afterwards. Intent-to-treat outcome analyses were not used. Instruments were mother-reported baby symptoms, interviewer-rated maternal representations, and independent ratings of interactions and infant affect. Significant effects independent of treatment modality were found at six months on maternal sensitivity, infant behaviour and symptoms. For maternal representations, individual items improved significantly but not their summary scores.

The study has a large age span (2 – 30 months). This creates a methodological problem since separation problems appear and are influenced differently by treatment across the age span. Though the study uses a conscientious set of measures, validity problems are evident. The lack of a no-treatment control group makes it hard to determine the relevance of the magnitude of improvements. Further, the therapies were perhaps too brief to be able to show the full potential of each method. This puts a question mark on the differential effects; IG brought greater improvement on maternal sensitivity, while mother-infant therapy increased maternal self-esteem. It is easy to agree that results are "consistent with expectations often expressed in psychotherapy outcome research: the effects common to both treatments are greater than their specific effects" (Robert-Tissot et al., 1996, p. 111).

#### **5.2.2 Mother-infant psychotherapy vs Watch, Wait and Wonder**

Watch, Wait, and Wonder (WWW) was compared with mother-infant therapy on 73 dyads with a child mean age of 20 months (Cohen et al., 1999). Assignment was "essentially random", that is, one third was assigned to treatment mode according to the therapists' caseload.

Treatments consisted of 14 once-weekly sessions on average. Immediately post-treatment, WWW was significantly more efficacious in improving attachments, development according to the Bayley mental scores, and maternal satisfaction, but not sensitivity or responsiveness. Therapies equally reduced mother-reported presenting problems and stress and also improved mother-child relationships. The WWW effects were explained by the fact that these therapists advised the mother to follow the infant's lead. They utilized the child's attachment and developmental strivings, which improved the mother's competence more than would interpretations of how her child relation was unconsciously determined.

Follow-ups were made six months after terminations (Cohen et al., 2002) on the 78% that remained. Most outcomes now yielded significant improvements compared with scores immediately post-treatment. For mother-infant therapy, some improvements emerged only at the six-month follow-up. The authors suggest improvements appeared earlier in WWW because the infant worked through his/her "developmental and relational struggles in the presence of his mother" (p. 377) while the mother worked through her anxieties emerging with the infant. In contrast, the work on insight in mother-infant therapy might leave her distressed for a longer period, thus explaining its slower outcome development.

One may note that the treatment mode for a number of cases was selected according to therapist availability, and that intent-to-treat analyses were not performed. Comparisons with this study are complicated by the fact that the WWW children were much older. On the other hand, the conclusions that WWW's infant focus accounted for its favourable effects are relevant here, since MIP is also an infant-focused method.

### **5.2.3 Mother-infant psychotherapy in a high-risk sample**

Lieberman et al. (1991) investigated 100 children, 12-month-old, in a high-risk Latino immigrant sample. All children who appeared securely attached in the Strange Situation procedure (Ainsworth et al., 1978) formed the "secure control group". The remaining anxious children were randomized to mother-infant psychotherapy (Fraiberg, 1980) with "developmental information", or to the "anxious control group". Control groups treatments were unspecified whereas therapies lasted one year, that is, much longer than in the study by Robert-Tissot et al. (1996). At 24 months, significant effects favoured the therapy group vs the anxious control group on most items of maternal and infant behaviour and interaction. The therapy group's scores now equaled those of the secure control group. Some maternal factors positively moderated outcomes: involvement in the therapeutic process, empathy, initiation of interaction and encouragement of reciprocity. By comparison with the present study, the sample had more social risk factors and follow-ups were shorter. Intent-to-treat analyses were not made on the 82% remaining at follow-up assessments.

### **5.2.4 Depressed mothers: Interpersonal psychotherapy**

From a community screening, 120 post-natally depressed women (O'Hara et al., 2000) were randomized to 12 sessions of interpersonal psychotherapy (Klerman, Weismann, Rounsaville, & Chevron, 1984) or to a waiting list control. Instruments were the Beck Depression Inventory (BDI; Beck, Ward, Mendelsohn, Mock, & Erbaugh, 1961) and other questionnaires on adjustment in the social, marital and postpartum domains, as well as diagnostic interviews (Hamilton, 1967) by external clinicians before treatments and followed up mostly by telephone. They knew the mother's treatment mode, which was thought to lessen the risk of attri-

tion in the waiting list group. At a three months follow-up, 83% of the sample remained. Intent-to-treat analyses yielded significant effects for the therapy group on almost all scores. One exception was infant symptoms as measured by a subscale on the postpartum adjustment questionnaire (O'Hara, Hoffman, Philipps, & Wright, 1992). The authors explain that the women had reported very little dissatisfaction/disturbance in their relationship with their infants. Perhaps the scarce infant measures reflect the fact that therapies did not focus on the mother-infant relationship.

### **5.2.5 Depressed mothers: Comparing four therapies**

A group in Cambridge, UK (Cooper, Murray, Wilson & Romaniuk, 2003; Murray, Cooper, Wilson & Romaniuk) investigated if early elevation of maternal mood might improve dyadic relationships and child development. They identified 193 primiparous depressed women through EPDS scores and a structured clinical interview for DSM-III-R. They were randomized to cognitive-behavioural therapy, psychodynamic mother-infant therapy, non-directive counselling (Holden, Sagovsky, & Cox, 1989) or a control condition of routine primary care. The three active treatment groups received 10 once-weekly sessions at home when the baby was 8–18 weeks, with 83% completing therapies. Intent-to-treat analyses showed that the active treatment groups significantly lowered their EPDS scores immediately post-treatment, while only the mother-infant therapy group improved on the clinical interview. Subsequent controls at a child age of 0.75, 1.5 and 5 years showed limited effects on mother-reported relationship problems, and the psychodynamic group even reported more behavioural problems post-treatment. Independently rated maternal sensitivity only improved among mothers at social risk who received counselling. Thus, most outcomes failed to show any benefit of the active treatments.

### **5.2.6 Depressed mothers: Group therapy**

Thirty-nine depressed mothers with babies of nine months on average, recruited by clinical referrals and clinical BDI scores, were assigned to a mother-infant therapy group, interpersonal individual therapy (Clark, Tluczek, & Wenzel, 2003), or a waiting list control group. Treatments lasted 12 weeks and focused on the depression and the baby relationship. Complete data were available for 90%. Instruments were questionnaires on depression and parental stress, assessments of infant development (Bayley, 1969) and mother-infant interaction (Clark, 1985). Follow-ups were made three months after treatment. Both treatment groups were superior in “reducing maternal depressive symptoms, improving mothers’ perceptions of their infants’ adaptability and reinforcement value, and increasing mothers’ positive affect and verbalization” (Clark, Tluczek, & Wenzel, 2003, p. 441). Some details need to be pointed out. For some measures, significant subscale results were taken to demonstrate more general therapy effects. Only one of two depression measures had significant effects. Actually the individual treatment, too, often included the baby; yet none of the active treatments showed significant effects on infant interactive contributions. Intent-to-treat analyses were not made.

### **5.2.7 Conclusions and implications for the MIP study**

The referred studies and reviews showed that therapies yielded significant effects mostly on mothers’ wellbeing. Effects on the infant were not always thoroughly investigated and if found, they were weaker. The following methodological conclusions were drawn when designing the present RCT study.

*Assessments.* To assess outcomes, the studies referred to used questionnaires and independently rated interactions. Interviewer-rated dyadic relationships were rarer. There may have been practical reasons, and one may also regard interviews as less reliable than objective assessments. However, an interviewer gets a first-hand view of the relationship and the genesis of symptoms. Interviews also enable qualitative assessments that may be used for analyzing differential treatment effects. In the present study, it was decided to make full use of interviews for assessing diagnoses, qualitative categories, and outcomes.

*Age range.* The age range of the referred studies was wider than in the present study and sometimes included children with a communicative language. This risks covering an array of developmental stages and psychopathological manifestations that may respond differentially to treatments. For this reason and because MIP was developed for pre-verbal children, a focus was chosen on infants below 1.5 years.

*Maternal psychopathology.* In the reviewed studies, maternal depression was assessed by questionnaires, except O'Hara and Swain (2000) and Cooper et al. (2003) who also used diagnostic interviews focusing on depression. However, other psychopathological characteristics and parental stress might be affected by treatment and would thus necessitate suitable instruments. It did not seem plausible in this study that DSM-IV-TR diagnoses would change during the brief treatments. Instead, for the outcome analyses it was decided to use questionnaires to cover global psychopathology, stress and postnatal depression.

*Statistics.* Dropout-analyses tended to be incomplete (Robert-Tissot et al., 1996; Cohen et al., 1999). This led to a decision on using intent-to-treat analyses, which account for cases that leave the study after having provided initial data. Finally experiment-wise errors (Haase & Ellis, 1987), that is, using random significances on single variables to support general treatment effects (Robert-Tissot et al., 1996; Clark et al., 2003) should be avoided.

## 6 AIMS OF THE STUDY

The aims were:

- (1) To explore the clinical applicability and the underlying theory of MIP in treating “baby worries” or mother-infant relational disturbances. This included exploring:
  - (a) the clinical method of MIP
  - (b) the nature of the communication between the analyst, the baby and the mother
  - (c) infant research findings to see if they support the assumption of MIP theory that the baby is able to understand the emotional communication with the analyst
  - (d) semiotic theory or the philosophy of signs, to see if it may provide a theoretical framework accounting for all the communicative forms that appear in MIP treatment
  - (e) differences and similarities between infant and adult psychoanalytic treatments
  - (f) the concept of containment
  
- (2) To contribute to a discussion of the methods for assessing infant functioning, by studying the validity of a mother-report questionnaire on infant social and emotional functioning
  
- (3) To compare the outcomes of MIP and CHCC in an RCT. This included investigating:
  - (a) outcomes of infant functioning, maternal distress, and dyadic interactive behaviour and relational qualities
  - (b) patient and treatment factors moderating the effects of MIP and CHCC

## 7 OVERALL DESIGN OF THE STUDY

The impetus to the project was the wish to systematically investigate if my experiences with MIP corroborated Norman’s clinical accounts (Norman, 2001, 2004) and if new insights might be gained. This “intersubjective phase of research” (Leuzinger-Bohleber & Bürgin, 2003, p. 17) benefited from discussions with Norman and awoke an interest in developing the theoretical framework of MIP. This led to the second phase of investigating MIP on a larger sample to create an overall picture of the method and its results. The overall design is summarized in Figure 1.

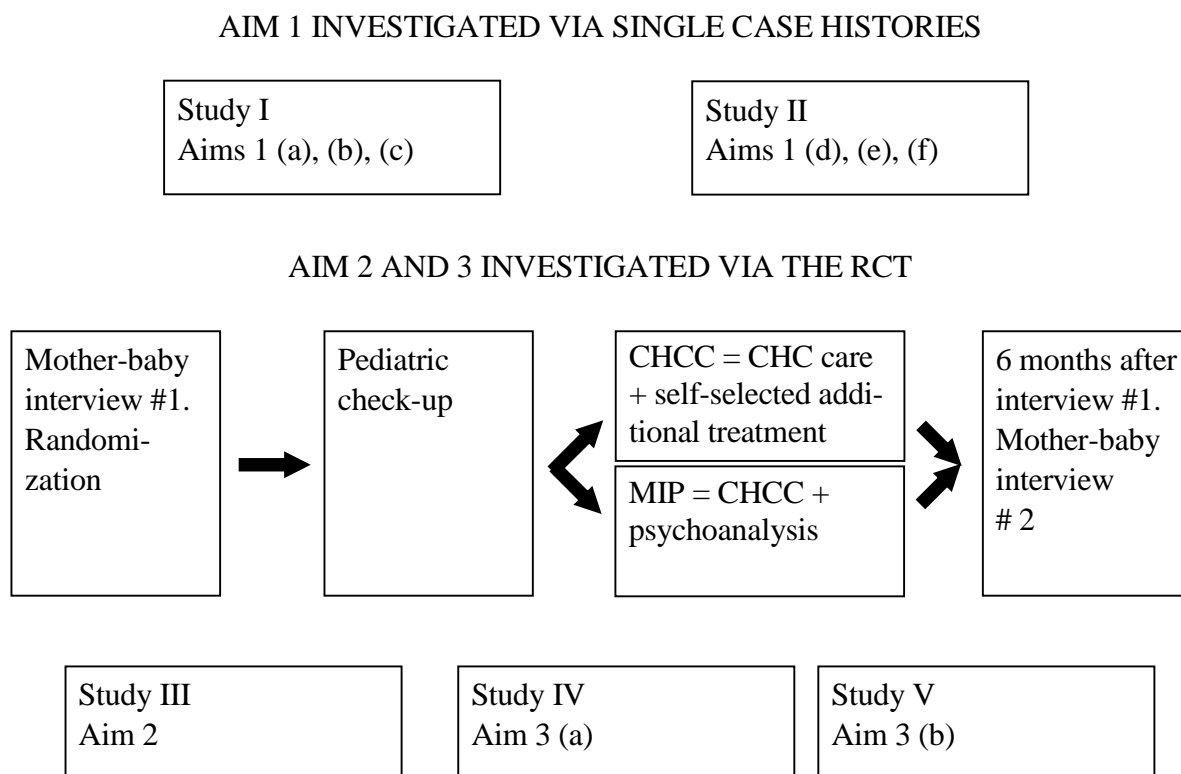


Figure 1. The overall design of the study.

### 7.1 ETHICAL APPROVAL

The project was approved by the Swedish Central Ethical Vetting Board (Centrala etikprövningsnämnden), Dnr Ö 16-2005. Mothers were guaranteed complete liberty in participating or leaving the study, whether they chose to remain in treatment or not. By signing a document they consented to participate. I guaranteed my responsibilities for data storage, anonymous reporting, and respect for the mother’s consent by handing her a signed document. The supplementary data of Paper IV contain the documents. Videos were only recorded on consent. The ethical considerations of the CHCC paradigm are presented in section 8.2.1, “The choice of comparison treatment”.

## **8 METHODOLOGICAL ISSUES**

### **8.1 AIM 1: THE PROCESS AND THEORY OF MIP – STUDIES I - II**

#### **8.1.1 Single or multiple cases?**

Following a psychoanalytic tradition, single case histories were used to investigate the process and theory of MIP. It has been asked if such histories yield insights that are applicable beyond the case under study, or if we must use extra-clinical objective criteria to reach universally valid knowledge (Leuzinger-Bohleber & Bürgin, 2003). Those who demand objective criteria tend to question the value of single-case histories. On the other hand, psychotherapy researchers argue that if such research bases its demands for objectivity on “drug approval criteria” (Orlinsky, Rönnestad, & Willutzki, 2004, p. 310), the result may be simplistic and exclude “the significant body of well-replicated results in 50 years of process-outcome research” (idem). One might add that 100 years of single-case histories have deepened our insights into the genesis and treatment of various psychopathological conditions.

The critics of single-case histories often regard natural science as a superior method of objectively collecting and assimilating knowledge. They argue that it accrues knowledge through systematic observations, which are collected in transparent ways that permit generalization. In contrast the hermeneutic disciplines, among them psychoanalysis, are criticized for collecting their findings privately and unsystematically and interpreting them subjectively. It is claimed that if we want to generalize treatment evaluations of single-case histories, we must follow them up by systematic single-case studies or group studies that permit statistical analyses. However, as Hampe (2003) argues, such objective criteria are not the parameters that separate science from non-science. What rather characterizes science is “the disciplining of experience” and “the systematic use of methods” (Leuzinger-Bohleber & Bürgin, 2003, p. 14). Thus, single-case histories and studies, and large sample studies, are “complementary” (Kächele, Schachter, & Thomä, 2009, p. 10) rather than conflicting methods of science. A large sample study allows us to generalize a method’s results. This breadth perspective is supplemented by the depth of a single-case history penetrating into one patient, one therapist, and one process. In psychoanalytic research, this is done in a cyclic process in which the analyst observes, cognitively and affectively processes what he/she has observed, and then interprets the findings (Leuzinger-Bohleber & Fischmann, 2006).

Having thus decided on a single-case history approach for this part of the project, the next issue was which cases to use. One might use audio-recorded sessions of the analysts in the RCT, but it seemed improbable that they would yield enough information on the treatment processes. The visible element, so important in treatment with non-verbal patients, would be absent. Further, the analysts’ emotional reactions, that is, their countertransference would not be evident. This could be approached by interviewing them. However, using audio-tapes and analyst interviews to enable a detailed understanding of the processes was unfeasible within the time frame of the project. I thus decided to use cases from my clinical practice in studies I–II. This implied the risk of being biased by countertransference and of selecting only “successful” cases. Therefore, care was taken to openly describe what went on in the sessions.

### 8.1.2 Single or multiple theories?

The next question was which theory to use for investigating the clinical processes. In a study of the process of psychoanalysis, it was logical to use its theory. However, it became evident that other theories must be included, since some ingredients in MIP were unique compared to classical psychoanalysis. MIP entails working with a mother and a child at different developmental levels, and the understanding of pathology and communication modes must be elaborated separately for each. It was also important to find theoretical concepts for that which was transmitted beyond words in the psychoanalytic “talking cure” (Freud, 1910). Further, mother and baby interplayed as a dyad and, in fact, theoretical concepts needed to cover the interplay of *three* actors; the baby, his mother and the psychoanalyst.

Experimental research on the baby’s understanding of emotional communication was used to account for the baby’s communicative capacities. To conceptualize the verbal and non-verbal communication forms in MIP and classical psychoanalysis, concepts from semiotic theory were used. Finally, to describe the relational field of the analyst and the patients, intersubjective theory (Beebe & Lachmann, 2002; Stern, 1985) was compared with Bion’s (1962) theory of the container-contained relation.

## 8.2 AIM 2 AND 3: THE RCT – STUDIES III - V

In an RCT the results of a treatment are obtained by comparing it, under controlled conditions and by random assignment, with one or more treatments. In this project, it would assess the outcomes of treatments conducted by a group of analysts and investigate the generalizability of MIP. The main question was how its results would compare with the usual mother-infant CHC care. The demands of a sound design were many. The sample must be large enough for statistical analyses, and a careful power calculation was mandatory. Measuring the complex outcomes of psychoanalysis demanded several instruments. By including questionnaires, interviews and video-recorded interactions, a combination of quantitative and qualitative measures was achieved. In the interviews, discordances became evident concerning how a mother scored on the infant questionnaire, how she described the baby, and how the baby was rated during the interviews. This led to the need of investigating the validity of the questionnaire.

### 8.2.1 The choice of comparison treatment

The first methodological choice concerned the comparison treatment. If we want to investigate in an RCT if an index treatment is efficacious we must ask, “as compared with what”? The intuitive answer is “with the treatment we normally use”, in this case CHCC (Child Health Centre Care). This would be the ultimate “treatment package strategy” (Kazdin, 1998, p. 142) for investigating if a treatment is efficacious for a particular clinical problem. From an ethical point of view, the comparison group must receive quality care (Kendall, Holmbeck, & Verduin, 2004). CHCC in Sweden obviously meets these requirements. Kendall et al. also remark that if the comparison group comprises genuine treatment, attrition will be minimized. Attrition rates were thus important to follow up in the study.

However, the design of comparing an experimental intervention with “treatment as usual” has been criticized since it would tempt us to interpret data through the prism of the former, “rather than viewing both interventions as equal candidates for endorsement” (Burns, 2009, p. 6). Further, since the usual treatment is often less well defined than the index treatment, we cannot state with certainty *in what ways* or *by what mechanisms* their results differ. One al-



ternative to CHCC would have been a waiting-list control, with half the dyads receiving MIP at once and the other half some time later. Compelling as this may seem in terms of ethics and equity, there are many arguments against it. Due to the infants' rapid development, between-group comparisons would be muddled by their different mean ages. Further, since a second follow-up was already considered, a waiting-list design would render comparisons less valid, because the entire sample would be treated with the same method though at different ages. Finally, it was not evident which message would disappoint a mother the most: that she had to wait to get MIP or, as in the present design, that we did not know if and how the results of MIP would differ from those of CHCC and that was why we ran the project. For similar arguments, see (Cohen et al., 1999). Reasonably, one indicator of disappointment would be the dropout rates in the groups, which thus were followed up closely.

Both groups continued their baseline mother-infant health care at the Child Health Centre. In the following, the group that in addition received psychoanalysis will be called, for the sake of brevity, the MIP group. The other group is called the CHCC group.

### **8.2.2 The interview format**

Interviews lasted 1.5 hours and were video-taped on the mother's consent. At the end of the interview, the mother was randomly assigned to MIP or CHCC. The semi-structured format enabled her to formulate her problems and myself to observe the baby. This permitted exploring and formulating psychoanalytic hypotheses based on spontaneous comments and actions of mother and baby. It was also important to cover the mother's history, and I set up a list of questions and checked that they were answered throughout the interview: medical and psychiatric histories, the mother's experiences of pregnancy, delivery and the nursing period as well as her family and marital relations.

The father is inevitably involved in baby worries and therefore, it would have been relevant to interview mother, father and child. However, a dyadic interview was used. One reason was that the theory behind MIP focuses on mother and baby. Second, clinical experience indicated that having both parents present in the room often made it more difficult to focus on the child and discern his possible disorder. Exploring the father's experiences would thus have necessitated a separate interview. In view of the available resources, this was not possible.

### **8.2.3 The randomization procedure**

Great care was taken to devise an ethically correct randomization procedure. At the end of interview #1, the mother was informed of the treatment alternatives. If she consented to randomization, she picked a sealed envelope from a bag with 40 tickets each to MIP and CHCC. To conceal treatment allocation, an official outside the project had placed the tickets in identical envelopes before the project started.

The timing of pre-treatment assessments, randomizations, and outcome evaluations were also carefully considered. Clinical experience indicated that mothers with babies may be uncertain about treatment and be wary of opening up to a stranger. Thus, to randomize and hand out questionnaires before I had met a mother would risk putting her off. This would skew the sample and favour the more motivated mothers. A decision was thus taken to randomize at the end of interview #1 when a stable contact was established and her emotional reactions to the assignment could be explored. This was ethically preferable and assumed to reduce the dropout rate. After the interview, she filled in questionnaires and returned them via postal

mail. MIP and CHCC were presented neutrally and objectively but, of course, randomization might generate negative reactions among CHCC mothers. If so, they might influence questionnaire scores and dropout rates, which thus were important to compare and follow up.

#### **8.2.4 Treatment manuals**

Another issue concerned the standardization of treatments. RCTs often use manuals to define the treatment under study. They help us in differentiating which results apply to the method and to the therapist factors, respectively. However, a manual may overlook the context of each therapist-patient couple (Wampold, 2001). I decided to utilize the homogenous clinical tradition in the MIPPS group. Treatment integrity was maintained through the seminars under Norman and, later, in the peer supervision group. A nine-item list was made as reported in the supplementary data of Paper IV. After the post-treatment interview with the analyst and the mother, it was used to evaluate to which extent treatment integrity had been upheld.

#### **8.2.5 Patient and treatment factors**

A further issue was how the personalities of mothers and children might influence outcome. A wealth of psychotherapy studies have shown that “the patient (including the severity of his or her distress) accounts for approximately 25% to 30% of the total variance” (Norcross & Lambert, 2005, p. 209) and that the client is an “active self-healer” (Bohart, 2006) who contributes to outcome. To create variables that might account for such factors and be compared statistically with the outcomes, I used interview impressions for categorizing mothers and babies into qualitative entities. Grounded theory was considered (Strauss & Corbin, 1998) for creating them but it seemed too ambitious and time-consuming for this study. Instead, ideal types (Wachholz & Stuhr, 1999) were chosen to capture interview impressions in a simple and intuitive way. When creating the types and grouping the subjects, clinical experience and countertransference were combined (Lindner, Fiedler, Altenhofer, Götze, & Happach, 2006). During the interviews, varying treatment motivations among mothers also emerged. A variable, “suitability for psychoanalysis”, was created to assess their willingness and interest in entering MIP. In contrast to the ideal types, this was a quantitative variable.

#### **8.2.6 Reliability and validity issues**

The ideal type and suitability ratings were based on the interview material. This also applied to ratings of relationship qualities (PIR-GAS) and interactions (EAS). To handle the reliability issues inherent to non-objective assessments, psychoanalysts with child experience were trained by me using manuals and videos, except for the PIR-GAS where the rater was a parent-infant psychotherapist with lengthy experience in the instrument. The aim was to ensure rater objectivity, to uphold regular training seminars to minimize rater drift, and to have enough ratings to get sufficient statistical power. For each instrument 20 ratings were chosen, a quarter of the sample, which is an oft-used proportion.

Objectivity was the least problematic to ensure for ratings of the EAS, suitability, and ideal types. The EAS raters knew nothing about the dyads and only watched the 10-minute videos. The suitability and ideal type raters watched the entire video except for that part which showed the randomization result. As for the PIR-GAS, the randomization procedure created specific complications. As argued above, randomization took place at the end of interview #1. To conceal randomization was impossible, since during the follow-up interviews mothers spoke of treatment experiences and thus revealed their randomization. To control for bias ef-

fects as much as possible, a rater was chosen from the Stockholm Child Psychiatry Organization and outside the MIPPS sphere. Thus her allegiance, if any, would reasonably be in favour of CHCC. Since in addition, she was thoroughly experienced in PIR-GAS ratings, she was a superior choice. Another issue was whether she should rate only interviews#1 or interviews#2 as well. I decided she should rate 20 each of interviews#1 and #2. In this way, we could compare our ratings of the dyad's relational development. To further investigate rater allegiance, we tested Treatment by Time by Rater interactions in a univariate ANOVA.

For the quantitative measures, inter-rater reliability was assessed with intra-class coefficients (ICC). For the qualitative ideal types, a method suitable for nominal data was used: inter-coder agreement (Cohen's  $\kappa$ ) that expresses "the extent to which independent coders evaluate a characteristic of a message or artifact and reach the same conclusion" (Lombard, Snyder-Ducth, & Bracken, 2008, p.2). The values of ICCs and Cohen's  $\kappa$  are presented below under each instrument's caption. The outcome analyses used, whenever possible, the rater means.

## 9 OVERVIEW AND RESULTS. THEORETICAL AND CLINICAL STUDIES (PAPERS I–II)

### 9.1 PAPER I

This study asked what a baby might understand of the analyst's interpretations and what he might understand of the baby's communication. The method used was to investigate the clinical process and theory from tape-recorded MIP sessions with eight-month-old "Karen" and her mother. First, the infant's tools for understanding linguistic and emotional communication were investigated. Evidence was mustered from experimental research that demonstrates the infant's efforts and abilities to communicate meaningfully with people around. Then I, as the analyst of this case, asked if one might subsume all forms of infant–analyst communication under one theoretical framework. If so, did each form such as the visual, the verbal, and the non-verbal, have a therapeutic impact in its own right? Alternately, were the analyst's words the sole conveyors of therapeutic change and were his non-verbal communications mere accidental vehicles? Similarly, when a baby changed her behaviour in accordance with an interpretation, did it reflect a therapeutic action or was it just a coincidence?

The case: Karen's mother sought help because the girl demanded nursing continuously and had sleeping problems. She could not get her to sleep unless yielding to Karen's claims for the breast. She felt exhausted and dejected and guessed that Karen's sadness was psychologically rooted but did not understand how. As she spoke, I was struck by her simultaneous anxiety and cheerfulness. The impression that Karen was angry rather than sad grew stronger when her crying increased in parallel to the mother's tense spate of words. I hypothesized that she was whining for the breast when the mother's care confused and angered her. If so, her whining expressed a defence against her anger as well as her discontent with the mother. When I addressed Karen, she did not literally understand my words but seemed to react selectively to other aspects of what I communicated. Which were these aspects? An incident provided a clue. One day, she crawled away from her mother in the consulting-room. She stumbled over a stool and whined. I described in simple words to her that she fell. Mom filled in with more pitying words about poor Karen stumbling. I proceeded to tell the girl:

"Actually you look a bit angry as you're looking at me. Perhaps you wonder what kind of man you have arrived at, me with my silly stool ... But it wasn't that dangerous when you stumbled!"

The girl calmed down but whimpered still. The mother went on describing Karen's nightly awakenings. She continued, as if talking to Karen:

"When you wake up during the night, the only thing that helps is to get the breast at *once*, otherwise you become *So Sad*."

To me, however, Karen seemed annoyed. My comment went on:

"One might ask if you get *sad* because you don't get the breast? Or, do you get *Angry*?"

The girl responded by a distinct roar, to which I commented:

"Well, *that* does sound quite *angry*, I think!"

At that point, Karen stopped crying.

There were several ways of understanding this incident. (a) Karen understood nothing and the fact that she roared and calmed down was coincidental. (b) Karen understood nothing but her

mother was inspired by my approach and changed her ways with Karen. Karen's change was thus due to her mother's change. (c) Karen did not understand me literally but was affected by emotional aspects embedded in my words though beyond their literal import. (d) Karen understood me literally and had an insight that she was angry with Mom.

Alternative (a) would be easy to accept, were it not for the fact that Karen reacted similarly in other clinical interchanges. As for (b) it probably played a role, since the mother seemed influenced by my way of speaking with Karen. However, (b) did not preclude the possibility that Karen was also affected directly via my communications, as suggested by her roar towards *me*. Thus, (c) and (d) must also be considered. Yet, (d) must be ruled out since, as infant research confirms, eight-month-olds do not understand words literally. Thus (c), though not invalidating (b), remained a way of understanding how Karen was affected. The stool was mine, she did not like falling on it, and her vexation with me was emotionally logical.

Did Karen's roar just express a momentary vexation or, rather, a continuous quality of our relation? Let us compare with an adult patient who is discontented with "the bad means of communications" when driving to her therapist's office. A psychodynamic therapist might consider this a negative transference, that is, the patient's discontent with the emotional communication with her analyst. I interpreted Karen's reaction similarly, namely, that she was angry with me. Yet, it might seem strange to speak of transference in a baby. Golse (2006) suggests the analyst's intense countertransference in infant work proves the existence of such transferences. Another argument might be added; through its high frequency and the analyst's empathic yet non-soothing and non-supportive stance, the MIP method encourages transference to emerge in the baby. However, one should recall that what Norman (2004) named infantile transference are transitory phenomena and do not represent the full-blown transference neuroses we see in child and adult analyses. At times, such as the stool incident, the emotional climate intensified and made Karen annoyed with me. The fact that she often smiled friendly at me indicated that infantile transferences, as in all analytic work, are mixed.

One might ask how I conveyed to Karen my understanding that she was angry with me. I suggest it emerged in my "music of containment" (Salomonsson, 2009), that is, the emphasis, tone, rhythm, and tempo of conversation. Could one find a term that covered all the ways by which this understanding was transmitted and became meaningful to her? One alternative would be "symbol", but psychoanalytic theory has not defined this concept with enough clarity. Instead, I followed Peirce's semiotic theory (Kloesel & Houser, 1992, 1998) and named them "signs". This term bypasses the crude dichotomy of verbal/non-verbal symbol. In Peirce's trichotomy of signs, the icon is formed according to its concrete similarity with what is signified, the index contains an injunction, while the symbol signifies a verbal message. When I said to Karen, "Do you get *Angry*"? the italics indicate the vocal emphasis and my gestures and facial expressions. She might have experienced me as an icon of marked (Fonagy, Gergely, Jurist, & Target, 2002) or "as-if" anger. Interpreted on an indexical level, my address conveyed the energy and emotional impact of a feeling called anger. Interpreted on the symbolical level, the words meant that she might be angry rather than sad. The symbolical level was not yet open to her, but she was evidently sensitive to the iconical and the indexical levels of my communication including the words. Her sensitivity made it vital to communicate so that she could feel my signs coincided at all levels. Such a situation is marked by sincerity, which Norman (2001) emphasized is an important characteristic of an interpretation. Sincerity might actually be defined in semiotic terms: to be sincere is to have

icons, indices and word symbols convey a unitary message, that is, to look and sound the way one feels.

## **9.2 PAPER II**

If Karen was affected by my sincerity, the impact of our relationship must be crucial. This idea was elaborated in Study II, which used tape-recorded audio-sessions for a MIP case and session notes for an adult analytic case. It emphasized that babies and adults are affected by the ways in which the analyst transmits how he understands the patient's predicament. Patients of any age may thus react as much to the iconic and indexical levels of an intervention as to its symbolical levels. The study was based on two treatments, one with a two-week-old boy "Nic" and his mother in MIP, and one with a 35-year-old woman in psychoanalysis. With the latter, I did not perceive my frustrated tone of voice and body language when interpreting how her traumatic infantile situation seeped into her present life. The work with Nic and his mother opened my eyes to the destructive impact of an insincere mother-infant relationship. This became an inspiration to speak sincerely with the woman patient about my hitherto unacknowledged vexation with her. She revealed how she had feared that I was fed up with her and now felt relieved since we could talk about it sincerely. She had often felt her mother was fed up with her as a young child, though her mother never acknowledged it.

As for the MIP case, Nic shunned Mom's right-hand breast where she had a wound earlier. As Mom tried to conceal her vexation with him, their interaction seemed insincere. She wanted to soothe him but contrary emotions blended with her words and prevented Nic from fusing his iconic, indexical and symbolical interpretations of her. To help him in this, I addressed the emotions assumed to be linked with his nursing behaviour. Thus, we might view analytic containment of his anxieties as a work of translation from one semiotic level to another. For example, I spoke to Nic of how his shunning the breast implied that he was displeased with his mother and confused by his feelings: "You have many feelings. Hunger hurts. You sense the wonderful milk. Then you recall you didn't like Mom's breast and her 'Ouch' when it hurt her. Your feelings clash...And Mom gets stressed". This work of translation implied that I accepted his emotions. This stance could neither be transmitted by comforting and diverting him, nor being reduced to mechanically substituting one word with its synonym. Rather, it must include a sincere message that I was trying to understand a frightening, hopeless and incomprehensible situation which kept both him and his mother stuck.

## **9.3 SUMMARY OF STUDIES I - II**

In conclusion, in relation to the issues put forward in aim 1 of the study, it was found that the therapeutic actions proposed by Norman (2001, 2004) were applicable to the infant treatments investigated. A semiotic framework was suggested to account for the diverse levels of communications that take place between the analyst and the baby. It was also found that though the adult and the infant patient are at very different levels of linguistic and intellectual comprehension, they face a similar task; to fuse the different levels of the analyst's communications into one sincere message that may help them to develop. Similarly, treatment aims at inspiring sincerity in the patient, whether he/she is an infant or a mature adult.

## **10 OVERVIEW AND RESULTS. THE RCT (PAPERS III–V)**

### **10.1.1 Design of the RCT**

The design was a “constructive treatment strategy” (Kazdin, 1998, p. 143) in which an index treatment was added to a baseline condition common to both groups. It had two advantages. One was ethical; no one would miss out on treatment since every mother visited the CHC. The second was that possible significant effects of MIP would be more impressive since they would be added to a CHCC treatment common to both groups. (Figure 1, p.X).

### **10.1.2 Treatments**

#### *10.1.2.1 MIP (Mother-Infant Psychoanalytic treatment)*

Analysts were assigned cases according to availability. They could not select cases and were uninformed of the interview contents. Treatment duration, frequency and content were left to the participants’ discretion and are reported in section 10.3.2, “Treatment data”. For details, see p. 7 in Paper IV and the supplementary data of that paper. The latter includes the list used for rating the analysts’ adherence to the MIP method. The most common reason for lower adherence scores was an insufficient mother-analyst working alliance or the analyst’s failure to perceive mothers’ covert negative attitudes toward him/her.

#### *10.1.2.2 CHCC (Child Health Centre Care)*

Whatever their assignment, all mothers reported on the content of CHCC at interview #2. See below in section 10.3.2 on “Treatment data”.

### **10.1.3 Power calculations**

These were based on effect sizes in studies using the EPDS (Cooper et al., 2003) and the Swedish Parental Stress Questionnaire (Östberg, 1998). As explained on p. 8 of Paper IV, MIP was expected to reach similar effect sizes for the EPDS as a subsample of mother-infant therapy compared with a control group in the study by Cooper et al. For the SPSQ, effect sizes were calculated to favour MIP similarly to comparisons of normal and clinical samples (Östberg & Hagekull, 2001). Opting for the same levels of power and  $\alpha$ , this would necessitate between 29 and 60 participants per group. In the end, forty dyads per group were chosen.

### **10.1.4 Sampling**

Dyads were recruited through advertisements on parenting internet sites, the delivery ward and the Nursing Centre of the Karolinska University Hospital, or via nurses at collaborating CHCs offering the mother a leaflet similar to the advertisements. The text mentioned the joys of parenthood but that babies sometimes seem unhappy and mothers may worry. Mothers were invited to be interviewed about such experiences and to be informed about treatment modes and, if she consented, to participate in a randomized study. A paediatric check-up was offered. Mothers were suggested to contact me by telephone or e-mail. A telephone interview lasting about 15 minutes ensued one or two days later. As seen in Figure 2 on p. 10 and explained on p. 9 in Paper IV, 214 mothers contacted the project. Of these, 90 mothers and babies remained to be interviewed face to face between October 2005 and January 2008.

The large group declining participation on telephone revealed that baby worries are instable conditions and maternal anxiety seems to awaken and abate quickly. Some mothers wanted to promote research but when realizing that the project focused on baby worries they declined. Either they “really” felt OK and thus did not belong to the study population, or their treatment motivations were ambivalent. If the latter assumption was correct we could not tell their differential outcomes from MIP and CHCC, respectively.

#### 10.1.5 Inclusion and exclusion criteria

The mother should express significant concerns about one or more of these domains: (1) herself as a mother, (2) her infant’s well-being, or (3) the mother-baby relationship. Furthermore, infant age should be below 18 months, the worries should have lasted more than two weeks, the domicile should be in Stockholm, and the mother should master Swedish well enough to take part in therapy. Exclusion criteria were maternal psychosis or substance dependence according to DSM-IV-TR if their severity seemed to preclude collaboration.

The reasons for choosing the criterion “baby worries” were presented in section 2.1. Psychosis or substance abuse *per se* was not excluded because of the experience that maternal motivation, rather than diagnostic severity, predicts treatment alliance and progress. Therefore, these conditions were a reason for exclusion only if cooperation seemed improbable. No mother fulfilled these criteria, perhaps out of a self-selection before applying to the project.

#### 10.1.6 Randomization

The considerations regarding the timing of randomization at the end of interview #1 were discussed in section 8.2.3. Though there were good reasons to randomize after a personal contact had been established with the mother and to subsequently give her the questionnaires, their being filled in after the randomization might affect response patterns. This will be discussed in the Pre-treatment data section 10.3.1.

#### 10.1.7 Participants

Ten mothers declined randomization at interview #1 (see p. 10 of Paper IV). They were not included in the outcome analyses. Of the 80 randomized cases, three assigned to CHCC and one to MIP declared after interview #1 that they did not wish to participate. They did not return questionnaires and no data were used. One case was still in MIP at project termination and was excluded from the analyses. In contrast, two cases were included who were assigned to MIP but in fact had no session and nevertheless came to interview #2, and one CHCC- and three MIP-mothers who attended interview #1 and their treatments but did not attend interview #2. Thus, 72/80 (90%) came to interview #2, and 38 MIP cases and 37 CHCC cases, or 75/80 (94%), were included in the intent-to-treat analyses. See Figure 2 in Paper IV.

Table 1 in Paper IV shows the prevalence of medical illnesses and prior psychiatric disorders. About 34% of the deliveries were cesaereans, as compared to 20% among Stockholm mothers of the same age (Swedish Medical Birth Register, [www.socialstyrelsen.se](http://www.socialstyrelsen.se)). In addition, 4% were vacuum extractions. The mothers were similar to the Stockholm population on the percentage of breast-feeding at six months and age at delivery. Single mothers were less frequent, the educational level was slightly higher and immigrants slightly less numerous. This was thought to reflect the recruitment procedure targeting Swedish-speaking mothers interested in mother-infant relations.



### 10.1.8 Assessments

Data were collected at interviews with mother and child. Instruments were questionnaires, independent interaction ratings, interviewer-rated relationship assessments, and CHC records. The semi-structured interview had a psychoanalytic orientation aiming at uncovering unconscious and pathogenic mechanisms in the disturbance. It formed the basis for the qualitative assessments. A separate ten minute video-recording of mother and baby interacting alone in the room was made as a basis for observer ratings. Ultimately, randomization was performed and the mother's reactions to it were explored. She returned the self-report questionnaires via postal mail. She then contacted a specially assigned paediatrician for a checkup and also, if randomized to MIP, her assigned psychoanalyst. Outcome data were collected at interview #2, when a separate interview with the analyst was also carried out.

### 10.1.9 Instruments – primary outcomes

#### 10.1.9.1 Maternal depression

The Edinburgh Postnatal Depression Scale (EPDS; Cox et al., 1987), in its Swedish translation (Lundh & Gylland, 1990), is a self-report questionnaire of 10 items with 3-point scales. It is widely used at CHCs and has been validated on Swedish samples (Wickberg & Hwang, 1997). Cox and coworkers (1987) and Murray and Carother (1990) found adequate sensitivity (.86 and .96) and specificity (.78 and .81) for major depression compared with a standardized interview. Internal consistency ( $\alpha$ ) was .87. Our  $\alpha$  for pre-treatment scores was .82.

#### 10.1.9.2 Infant social and emotional functioning

The Ages and Stages Questionnaire: Social-Emotional (ASQ:SE; Squires, Bricker, Heo, & Twombly, 2002) was used for mother-reported infant social and emotional functioning. Three versions exist for this age range; 3-8, 9-14, and 15-20 months. Each version was independently translated to Swedish, re-translated, and approved by the constructor. Mean scores across all items are reported to enable comparison across age groups. Our  $\alpha$  for pre-treatment scores was .79 and .66 for the two youngest age intervals.

#### 10.1.9.3 Mother-Baby Relationship

The Parent-Infant Relationship Global Assessment Scale (PIR-GAS; ZERO-TO-THREE, 2005) ranges from 0 to 99, from “documented maltreatment” to “well-adapted”. The interview ratings of the emotional qualities of the dyad's relationship were based on the observed behaviour and on the mother's “subjective experience of the child“ (p. 42). The choice of a rater for the reliability assessments was discussed in section 8.2.6. For 20 first-time interviews and 20 second-time interviews, ICCs were .90, and .86. To further investigate rater allegiance, we tested Treatment by Time by Rater interactions in a univariate ANOVA,  $F(1;60) = 0.408$ ,  $p = .525$ . Thus, rater allegiance did not seem to influence the PIR-GAS assessments. The outcome analyses used raters' means.

### 10.1.10 Instruments – secondary outcomes

#### 10.1.10.1 Maternal stress

The Swedish Parental Stress Questionnaire (SPSQ; Östberg, Hagekull, & Wettergren, 1997) is a version of the Parenting Stress Index (PSI; Abidin, 1990) with 35 items. Östberg et al.

report  $\alpha$ -values for internal consistency of total mean scores to be .87 – .90. Our  $\alpha$  for pre-treatment scores was .88.

#### *10.1.10.2 Maternal psychological distress*

The Swedish Symptom Check List-90 (SCL-90; Derogatis, 1994; Fridell, Cesarec, Johansson, & Malling Thorsen, 2002) is a self-report questionnaire with 90 items rated 0–4. The General Severity Index (GSI) or mean across items was used in the analyses.  $\alpha$  for pre-treatment scores was .96.

#### *10.1.10.3 Parent-infant interaction*

The Emotional Availability Scales (EAS; Biringen, Robinson, & Emde, 1998) were used to assess video-taped mother-baby interactions. It has four maternal dimensions: Sensitivity, Structuring, Non-intrusiveness, and Non-hostility, and two infant dimensions: Responsiveness and Involvement. Two independent and blind raters with substantial clinical infant experience were trained by me and certified by the EAS constructor. Regular seminars were arranged to preserve high-quality ratings and to minimize rater drift. ICCs in a sample of 49 dyads were .72, .68, and .84 for maternal Sensitivity, Structuring and Non-intrusiveness, and .72 and .76 for infant Responsiveness and Involvement. Non-hostility was excluded due to unsatisfactory ICCs at interview #2. Raters' mean scores were used for the statistics. Since the original dimensions varied in their ranges, each score was divided by its respective range. Thus, all dimensions ranged between 0 and 1, with 1 implying optimal interactive contributions. These transformations aimed at facilitating comparisons between dimensions, thus adhering to the recent 4<sup>th</sup> edition of the EAS (Biringen, 2009).

#### *10.1.10.4 CHC health care utilization*

CHC records were requested. Every note referring to somatic or psychological concerns or visits beyond routine calls received one point. Points were summarized in four subscales: infant somatic concerns, infant psychological concerns, maternal somatic or psychological concerns, and calls beyond routine. To measure treatment effects, monthly points were calculated and compared for the period before and after the first interview.

### **10.1.11 Statistics**

SPSS v.15.0 was used for t-tests, bivariate and partial correlations, principal components analyses, ANOVAs, linear mixed-effects modelling, and Kruskal-Wallis non-parametric tests. Scores were considered outliers if z-transformed scores exceeded 3.29 ( $p < .001$ , two-tailed test). They were replaced by raw scores corresponding to  $z = 3.29$  (Tabachnik & Fidell, 2007). This applied to 0.3% of the scores. Multivariate outliers were identified by calculating Mahalanobi's distance through multiple regression analyses. An estimate was used of  $p < .001$ , corresponding to  $\chi^2 > 31.264$  for  $df = 11$ , or the number of variables. One outlier was found in the CHC statistics. Missing data were very rare, missing at random, and no scores were imputed. To investigate possible redundancies among outcome measures, we also performed a principal components analysis of pre-treatment scores.

Pre- and post-treatment scores for each normally distributed variable were entered in a linear mixed-effects modeling procedure. For between-groups effect size calculations (Cohen's  $d$ ) we used pooled standard deviations of post-test scores. Becker's  $\Delta$  (Becker, 1988), a stan-

standardized mean change score that also accounts for pre-treatment between-groups differences, was calculated by subtracting one within-group effect size from the other, using pre-treatment standard deviations.

## **10.2 PAPER III: RESULTS OF THE VALIDITY STUDY OF THE INFANT QUESTIONNAIRE**

When data from interviews #1 were collected, the issues on measuring infant functioning implied in the thesis' aim 2 became vital to study. Michelle Slead and I studied the validity of the questionnaire on infant functioning (ASQ:SE) by comparing it with the relationship (PIR-GAS) and interaction (EAS) ratings and the questionnaires on general distress (GSI), stress (SPSQ) and depression (EPDS). For this study we wished to get a large sample. Thus, the ten non-randomized dyads were included whereas the cases without EAS videos were excluded. In all, 68 cases with complete data remained.

In the RCT, the ASQ:SE was used as an outcome instrument since it was assumed to measure the infant's functioning in areas such as mood, food, sleep, emotional contact and activity level. The literature was inconclusive as to the validity of infant questionnaires in clinical and non-clinical samples, but it seemed logical to hypothesize that the ASQ:SE would primarily be associated with other measures involving the baby, that is, the PIR-GAS and the EAS. In contrast, the questionnaires on maternal distress ought to be strongly associated with, and only with, each other.

Contrary to these hypotheses, the ASQ:SE proved not to correlate significantly with the PIR-GAS or the EAS, though the latter two correlated strongly. This pattern remained when we partialled out the effects of child age. To understand which variables predicted the ASQ:SE, a multiple regression analysis was carried out with the ASQ:SE as the dependent variable and all other instrument scores and child age entered as independent variables. With a backwards stepwise procedure, all variables except SPSQ were excluded ( $F = 22.237$ ,  $p = .000$ ,  $\beta = .502$ ). This model accounted for 24% of the variance. Thus, mother-reported infant functioning was strongly predicted by maternal stress.

A principal components analysis illuminated the relations between questionnaires. It yielded a two-component solution accounting for 65% of the total variance. The first component loaded strongly on all questionnaire scores, and the second on the PIR-GAS and the EAS. Finally, we split the sample into depressed and non-depressed mothers. For the depressed, the two-component pattern remained, while the pattern was unclear for the non-depressed. Thus, the association between the ASQ:SE and the maternal distress questionnaires seemed confined to mothers classified as depressed.

### **10.2.1 Summary of Study III**

Study III thus pointed to problems with the concurrent validity of the ASQ:SE. Mothers seemed to use it as a measure of personal distress rather than one of infant functioning. This seemed to reflect the difficulty, mostly for depressed mothers, to rate the baby independently of their own state. In a separate qualitative study, Ahlmér (2009) found that the mothers who scored most favourably on the ASQ:SE in the RCT indicated they had approached the project to get personal support rather than help with their babies, whom they felt were doing fine.

## **10.3 RESULTS OF STUDY IV**

This study compared outcomes of MIP and CHCC, in an RCT, on mother-reported distress and baby-functioning, interviewer-rated relationships and observer-rated interactions. MIP was hypothesized to yield better effects due to its intensive approach and focus on the baby and the mother.

### **10.3.1 Pre-treatment data**

A principal components analysis of pre-treatment scores of all outcome instruments yielded three factors with eigenvalues  $> 1$ . The solution accounted for 74% of the variance. The first Varimax-rotated component subsumed the EAS dimensions except non-intrusiveness. The second component covered the questionnaires, and the third the PIR-GAS ratings and non-intrusiveness. See table 3 in Paper IV.

As Table 2 in Paper IV shows, mean scores and ratings were at non-optimal levels and did not show any significant between-group differences on any outcome instrument. DC 0–3:R Axis 1 conditions included regulatory and feeding disorders. Axis 2 Relationship Problems Checklist (RPCL) were frequent and mostly included the anxious/tense type. The PIR-GAS mean scores implied a “significantly perturbed” relationship. Axis 3 diagnoses comprised minor problems but one baby with a congenital metabolic disease. Three babies were born in pregnancy week 33 and 34 with no major medical sequelae and with brief incubator periods. The paediatric records showed no undisclosed serious medical concerns. Three parameters differed significantly between the treatment arms: MIP babies were younger ( $p = .030$ ) and had more somatic Axis 3 conditions ( $p = .035$ ) and fewer Axis 4 stressors ( $p = .016$ ).

### **10.3.2 Treatment data**

The MIP dyads had a median of 23 sessions 2 – 3 times weekly. Two mothers consulted once with a CHC psychologist and two were on antidepressants. Every third CHCC mother had additional brief psychotherapy (4  $\pm$  2 sessions) such as mother-infant, individual or marital therapy, or antidepressants. All additional treatments were considered part of the respective treatment condition and data were included in the outcome analyses without any corrections.

### **10.3.3 Pre-post between-group differences**

All questionnaires and interaction measures improved to a greater extent in the MIP group than in the CHCC group. Table 4 in Paper IV presents the results of the mixed-effects analyses, and Table 1 below shows them in an abbreviated way. For the primary outcomes, effects were significant on the EPDS and the PIR-GAS but non-significant on the ASQ:SE. Secondary outcome effects were significant on the EAS maternal sensitivity but non-significant on its remaining dimensions. Effects were nearly significant on the SPSQ but non-significant on the GSI. Due to skewed distributions the CHC data were analyzed non-parametrically, which yielded non-significant group differences. Cohen’s  $d$ 's were small to moderate, whereas Becker’s  $\Delta$ 's were generally higher. As for the number of cases with gains exceeding the Reliable Change Index (RCI; Jacobson & Truax, 1991), MIP was superior to CHCC on seven outcomes, equal on two, and inferior on two outcomes.

Table 1. Outcomes of the mixed-effects analyses.

Outcomes	F	p	Cohen's d	Becker's $\Delta$
Primary:				
EPDS	5.894	.018	0.39	0.57
ASQ:SE	1.255	.266	0.20	0.25
PIR-GAS	8.210	.006	0.58	0.84
Secondary:				
SPSQ	3.901	.052	0.14	0.37
GSI	2.038	.158	0.25	0.11
Sensitivity	4.872	.031	0.42	0.67
Structuring	1.718	.195	0.15	0.36
Non-intrusiveness	0.039	.844	0.27	0.02
Responsiveness	2.701	.105	0.17	0.47
Involvement	0.444	.508	0.10	0.22

A renewed linear mixed-effects analysis compared those CHCC cases that did not receive additional psychological with the entire MIP group. Effects now also reached significant levels for the SPSQ ( $p = .035$ ) and improved for the GSI to  $p = .086$ . For the other outcomes, results were essentially unchanged compared with the analyses of all the CHCC cases. Another analysis investigated the influence of MIP duration and frequency on outcomes. Analyses were performed on each outcome variable, with Time (interview #1 vs #2) as the independent variable and MIP duration and frequency, respectively, as covariates. As indicated on p. 18 in Paper IV, there were no significant Duration by Time effects.

#### 10.3.4 Summary of Study IV

As compared with CHCC, MIP yielded significantly stronger effects on the EPDS, maternal sensitivity (EAS), and the PIR-GAS, nearly significant effects on the SPSQ, and non-significantly stronger effects on the ASQ:SE, the GSI, and the remaining EAS dimensions. When compared with only those CHCC cases who received no additional psychological treatment, effects became significant on the SPSQ as well. MIP duration and frequency did not significantly alter the outcomes. Effect sizes of the significant outcomes were moderate.

### 10.4 RESULTS OF STUDY V

The results of study IV led to study V focusing on patient factors that might explicate the differential effects between and within the treatment groups. This would imply an analysis of moderator effects. It was hypothesized that outcomes would be influenced, maybe even differentially in MIP and CHCC, by the mother's personality and attitude to psychoanalysis and by the baby's symptom severity. If this were confirmed these factors might be used to indicate which kind of patients with which kind of baby worries is best suited for either treatment. At interview #1, I categorized qualitatively mother and child into "ideal types" (Wachholz & Stuhr, 1999) which were then tested for predictions of therapy outcome. An

ideal type is a way of grouping cases, that is, a kind of qualitative clustering. The cases are grouped, after careful observations of several single cases, on the basis of similarities along a number of dimensions. The ideal type cannot be found in reality (Philips, Werbart, Wennberg, & Schubert, 2007) but is nevertheless generalizable. Objective observations and the interviewer's subjective emotional reactions to the interviewee (Lindner et al., 2006) are utilized. In a study on psychoanalytic processes, ideal types were shown (Leuzinger-Bohleber & Target, 2002) retrospectively to yield differential outcomes on object-relations, self-reflection, creativity, and working capacity.

#### 10.4.1 Infant types

The infant types summarized my impressions of the baby and the mothers' account of his state during the interview. In view of the age span and the variety of symptoms, and taking power into account, forming two types seemed like an optimal division of the sample. The prevalence of the two types was almost equal. Inter-coder agreement (Cohen's  $\kappa$ ) for the two raters assessing 20 infant types was .80.

The baby *Affected* by the relationship disturbance cried or reacted with other negative emotions when the mother spoke of distressing topics. Or, he fretted or arched away when she comforted him. Avoidant gaze contacts were also seen. Older babies might look unhappy or tense and crawled away from Mom or turned their back on her, indicating an avoidant attachment pattern (Ainsworth et al., 1978). Still older ones showed a disorganized attachment (Main & Solomon, 1986) by being overly active and jittery. Some went against the mother's bids and even slapped her. Some exhibited a sexualized contact, as when babies who were weaned anxiously went for their mother's breast.

The *Unaffected* baby seemed safe and calm even when the mother was addressing painful topics or was crying or raging. He could look gently and curiously at her or just go on playing peacefully. The mother might convey similar events at home, for example that the baby was sleeping and eating and was cheerful. Some babies preferred playing by themselves but when the mother tried to catch their attention, they responded with a smile or a gaze and babbled with her or went on playing.

#### 10.4.2 Maternal types

Initially, five types were created. *The chaotic mother* was overwhelmed and felt powerless in taking care of the baby and herself. She did not get enough sleep or food and found no time for herself or her husband and friends. Her story was sometimes incoherent or hard to follow. She indicated that she somehow contributed to the situation but could not understand how.

*The depressed/reserved mother* was sad, crying or sighing. She deplored that she could not love her baby or feel joyful and vitalized in his company. Guiltily she felt that other mothers were better and wondered why this was so. Others exhibited a gap between their pained words and blank expressions, thus resembling a "smiling depression".

The self-esteem of *the mother with an uncertain maternal identity* depended much on her professional status and career. Having now become a mother, this ambitious and conscientious woman felt uncertain and unprepared. She wished to temporarily regress to understand her baby's wishes and enjoy his company, but felt unable to do so.

*The anxious/unready mother* panicked at the slightest baby symptom or her own somatic health. It was not always clear if she spoke about her baby or herself. Sometimes, she spoke to him in a childish way. In contrast to the mother with an uncertain maternal identity, she seemed unable to temporarily progress to understand his wishes. At times, her needs of being taken care of seemed to compete internally with her wishes to care for him.

*The mother conflicting with her partner* was devastated that the child's father abandoned her during pregnancy, concretely or by grossly neglecting her emotionally. This made her feel forsaken, bitter, and angry. Still, she could set these feelings aside when being with her child, whom she capably took care of and in whom she found comfort and joy.

The MIP and CHCC groups contained similar proportions of the types, on average 11, 27, 29, 30 and 3 percent. To increase group sizes they were subsumed under two Overarching Maternal Ideal Types (OMIT's), the *Participators* and the *Abandoned*. The two raters assessing the infant types also assessed the maternal types. They reached an inter-coder agreement (Cohen's  $\kappa$ ) of .61 for the five maternal types and .89 for the two OMIT's.

The *Participators* comprised the chaotic and the depressed/reserved mothers, and those with an uncertain identity who all conveyed a wish to actively participate in a psychoanalytic exploration. They also felt they contributed to the baby worries but did not understand how. The *Abandoned* comprised the anxious/unready and conflicting mothers who felt forsaken, either because their partner had left them or they felt the child competed with their personal needs. They expressed a wish to receive expert advice on how to handle their child or partner relation. The proportion *Participators/Abandoned* was about 2:1 in both treatment groups.

#### 10.4.3 Suitability for psychoanalysis

I also assessed the mother's motivation to work in psychoanalysis, her psychological mindedness or focus on symptom relief, patience or eagerness in obtaining quick results, interpersonal trust or suspiciousness, and her propensity to think the problems related to her personality or to chance, biology, or the father. ICCs were calculated by comparing my ratings with those of the raters making the ideal type reliability checks. For 20 interviews, they were .79.

#### 10.4.4 The influence on outcomes by ideal types and suitability for psychoanalysis

Irrespective of treatment, *Affected* babies improved more than *Unaffected* on the ASQ:SE, the PIR-GAS, the SPSQ, the EAS maternal sensitivity, infant responsiveness and involvement. Further, the Treatment by Time by Infant Type effects were significant on the PIR-GAS and all EAS dimensions except for maternal structuring, as seen in Table 3 in Paper V. We then wanted to investigate if MIP and CHCC yielded different results for the two ideal types. Thus, the significance of the pre-post differences for treatment modes and ideal types was tested. This was achieved by calculating z-values based on the unstandardized regression coefficients of infant types in MIP and CHCC, respectively (Cohen & Cohen, 1983). The significance criteria were  $z > 1.96$ ,  $p < .05$  (two-tailed test). For the *Affected* infants,  $z = 2.06$ ,  $p = .040$ , and for the *Unaffected*,  $z = 0.71$ ,  $p = .478$ , on the EAS maternal sensitivity. Thus MIP was superior, by comparison with CHCC, in improving maternal sensitivity scores among *Affected* infants, with Cohen's  $d = 1.02$ . This is indicated by the angle  $\alpha$  in Figure 2.

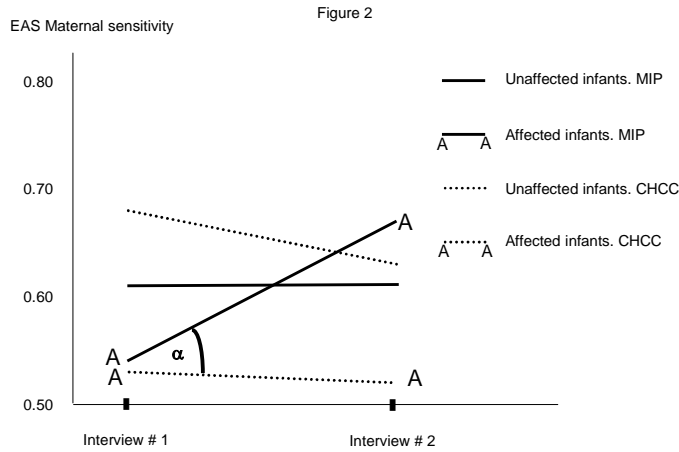


Figure 2. Maternal sensitivity pre- and post-treatment according to MIP/CHCC and infant types.

As seen below, Figure 3 indicates that the PIR-GAS scores of *Affected* infants improved significantly more in the MIP group,  $z = 2.89$ ,  $p = .004$ , as indicated by the angle  $\alpha$ . No significant differences were found among *Unaffected* infants. Thus compared with CHCC, MIP was superior in improving the PIR-GAS scores for *Affected* infants ( $d = 1.21$ ).

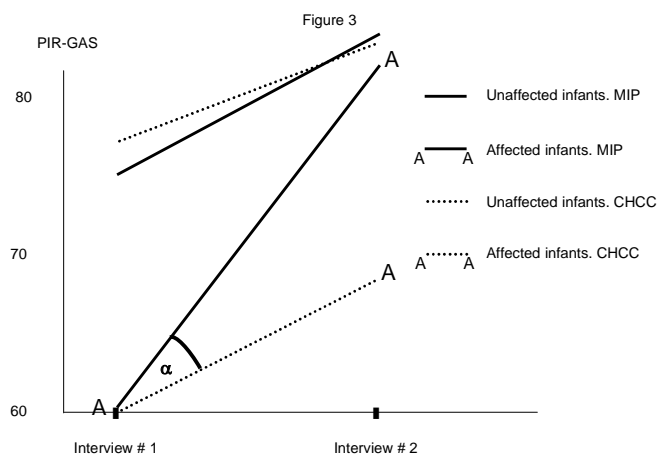


Figure 3. PIR-GAS scores pre- and post-treatment according to MIP/CHCC and infant types.

As for the maternal OMITs, the Treatment by Time by OMIT effect tended to be significant on the SPSQ ( $p < .051$ ) and was significant for EAS maternal sensitivity ( $p < .007$ ). On EAS maternal sensitivity, *Participants* in MIP improved whereas those in CHCC decreased, as seen in figure 4. This differential effect, indicated by the angle  $\alpha$ , was significant ( $z = 2.78$ ,  $p = .005$ , with  $d = 1.07$ ). For the *Abandoned*, effects were the opposite but non-significant.

The suitability for psychoanalysis was rated similarly in the MIP and CHCC groups, on average 2.4 (SD 0.8 – 0.9). Partial correlations analyses were performed on all post-treatment outcome variables while controlling for pre-treatment scores. Suitability predicted the PIR-GAS in the MIP group and in the entire sample. The more suitable the mother had been rated, the more satisfying was the dyadic relation six months later, regardless of treatment.



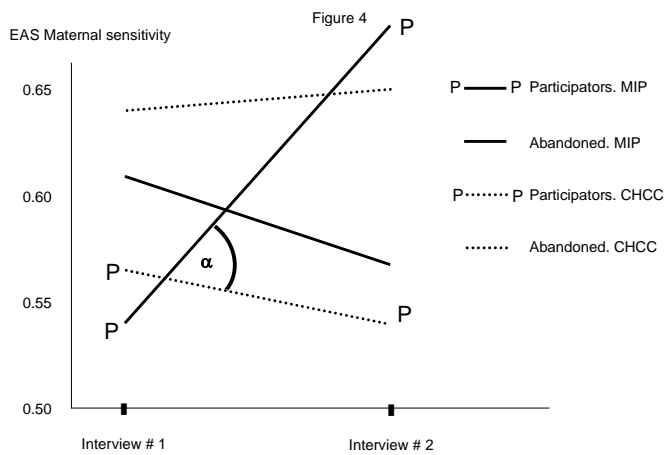


Figure 4. EAS maternal sensitivity pre- and post-treatment according to MIP/CHCC and OMITs.

We finally investigated to what extent the OMITs overlapped with the other moderating factors. They did not coincide with suitability but with the infant types,  $\chi^2(1;74) = 6.44, p = .011$ . Unexpectedly, *Abandoned* mothers associated more closely with *Unaffected* babies, whereas *Participant* mothers more often had *Affected* babies. Maternal and infant types were thus not redundant categories in terms of their moderating effects on maternal sensitivity.

#### 10.4.5 Summary of Paper V

*Participant* mothers improved their sensitivity to a significantly greater extent from MIP than from CHCC. *Affected* babies improved their PIR-GAS scores, and their mothers improved their sensitivity, significantly more from MIP than from CHCC. Suitability predicted the PIR-GAS in the MIP group and, albeit less strongly, in the entire sample.

##### 10.4.5.1 Comments

*Affected* infants gained more from MIP than from CHCC on the PIR-GAS, and their mothers' sensitivity improved similarly. Their effect sizes were about twice as large as in the entire sample ( $d = 1.02$  and  $1.21$  compared with  $d = 0.42$  and  $0.58$ ). Thus, the *Unaffected* babies in the RCT sample seemed to conceal the evident MIP effects for the *Affected* babies. Simply speaking, MIP was especially helpful to babies that suffered the most. As for the OMITs, MIP and CHCC seemed to affect mothers differentially according to their personality traits. This is discussed in 11.4 "Clinical conclusions".

As for suitability for psychoanalysis, it probably links with the mother's reflective functioning (RF; Fonagy, Steele, Steele, Moran, & et al., 1991) on the intentions, thoughts, feelings, and behaviour in herself and others. It may assist her when she is handling a fussy or "impossible" baby, which would emerge in the PIR-GAS score. Other studies have found associations between maternal RF and balanced child representations (Schechter et al., 2005), and demonstrated how it mediates the relationship between maternal and infant attachment security (Fonagy et al., 1995), and linked it with parental joy and coherence (Slade, Belsky, Aber, & Phelps, 1999). The links between RF and therapy outcome have been demonstrated on depressed mothers in toddler-parent psychotherapy (Toth, Rogosch, & Cicchetti, 2008). In the general discussion, I will approach why the ideal types and the suitability ratings predicted outcomes differentially.

## 11 GENERAL DISCUSSION

The overall design of the study included a qualitative approach in the single case histories, with the aim of achieving a deeper understanding of MIP treatment and of generating further hypotheses. In contrast, quantitative methods were used to assess pre-treatment levels of maternal and infant mental health and interaction, as well as treatment outcomes. The moderator study V, with ideal type assessments of mothers and babies in the context of an RCT, involved both qualitative and quantitative methods. The combination of qualitative and quantitative methods was useful for identifying personality and symptom constellations in mothers and children who seemed to benefit more from MIP and CHCC, respectively. It was also found that quantitative mother-report assessments of infant functioning were not as valid as expected.

In relation to the study aims, the main findings may be summarized as follows.

(1) The single-case explorations of MIP demonstrated that the therapeutic action postulated by Norman (2001, 2004), that is, the analyst's containment of the infant's anxieties, was applicable to the treatments. It was also shown that experience in working with infants may help the clinician to understand primitive experiential levels in the adult patient as well. Unless the analyst understands how he/she contributes to the therapeutic relationship, he may preserve a traumatizing infantile situation in his patient. Similarly, the parents' mental states may negatively influence the baby and in section 11.3, a model of their roles in the etiology and treatment of baby worries will be discussed. In section 11.3.2, the treatment consequences that spring from the father's and mother's dissimilar roles during infancy will be approached. Finally in 11.4, "Clinical conclusions", I discuss which patients and problems may benefit the most from MIP or CHCC and how techniques need to be individualized.

(2) Concerning methods of assessing baby functioning, Study III showed that the questionnaire ASQ:SE paralleled mother-reported personal distress rather than externally rated infant interactive contributions. Thus, its validity seemed questionable in the RCT sample. Problems with assessing baby functioning will be discussed in 11.1, "Discordances among measures".

(3) The randomized controlled trial showed significant MIP effects on maternal depression and sensitivity and mother-infant relationships, and nearly significant effects on maternal stress. MIP was superior to CHCC among *Affected* infants in improving maternal sensitivity and dyadic relationship qualities. MIP was also superior in improving sensitivity among the *Participator* mothers. In 11.2, "Qualitative assessments", these mother and infant types will be illustrated. In 11.4, "Clinical conclusions", I focus on how the RCT yielded new insights into baby worries and the need to attend to the baby's and the mother's symptom and personality before suggesting MIP or CHCC.

### 11.1 DISCORDANCES AMONG MEASURES

Baby worries are difficult to pinpoint. The baby cannot verbally express what he experiences, and the mother vacillates as to whether she or the child or both have problems, and whether they are negligible or serious. Such vague symptom descriptions created a need to carefully measure disturbances in the baby. Clinical ratings of the relationship (PIR-GAS) and observer ratings of interaction (EAS) were chosen, but it seemed evident that the mother should also

be consulted since she was the person most close to and well-informed about the baby. Thus a mother-report questionnaire, the ASQ:SE, was included as an outcome instrument.

Some mothers scored excellently on the ASQ:SE. Yet, they had mentioned severe child problems during the interview or were rated low on the PIR-GAS and the EAS. This inspired the validation of the ASQ:SE in Study III. Its validity was found to be questionable in the sample. The scores seemed to parallel the mother's distress rather than her infant's state, at least as he was assessed on the PIR-GAS and the EAS. One might argue that the instruments measured different areas, but a close look at the ASQ:SE items pointed to the links between a baby's social and emotional functioning and his interactions with his mother. Thus, reasonably, the three instruments ought to correlate which, however, proved not to be the case.

Similar discordances were found between other instruments. Some mothers with optimal EPDS scores had non-optimal PIR-GAS, EAS, and ASQ:SE scores. The analysts' impressions might also disagree with maternal questionnaire scores, as when they worried about the child's state but the mother indicated optimal ASQ:SE scores. Similar findings have been reported (Tronick & Weinberg, 2007) on mothers with clinically assessed psychiatric illnesses and interaction difficulties with their babies who, nevertheless, scored normally on questionnaires assessing psychiatric symptoms. In conclusion, one single criterion will not always distinguish dyads in need of psychotherapeutic help from those whose own resources suffice to change development in a positive direction. Baby worries are abstruse and anxiety-provoking for those who suffer or observe them. Using a questionnaire may seem to cut through these complexities, but this study shows that it may miss dyads in need of help.

## 11.2 QUALITATIVE ASSESSMENTS

The discordances among measures pointed to the need to detail the clinical picture beyond the quantitative measures. This led to the ideal type categorizations. As reported, they proved capable of predicting differential results of MIP and CHCC. Here, they will be illustrated with the single-cases and the RCT. One example of an *Abandoned* mother was Karen's mother (Paper I). She felt lost and forsaken by her mother and partner, which seemingly made her overestimate the girl's feelings of abandonment. MIP achieved solid results, but I wanted to continue for the improvements to settle. She, however, claimed everything was OK and that she preferred to turn to her friends for advice and support. In contrast, Nic's mother exemplified a *Participator*. Her uncertainty about motherhood impressed as a bit immature, but she also conveyed that she wanted to grasp how she contributed to the relationship. Thus, I was able already during the second session to address her ambivalence towards the boy.

### 11.2.1 Ingrid, a *Participator* (chaotic) with an *Affected* baby son in CHCC

Some ideal types from the RCT will now be presented including how they fared in treatment. Ingrid had not seen her alcoholic mother for years. She missed her and was bitter and angry. She was fond of her husband and appreciated his patience with her "ups and downs". At the interview, her story was not always coherent and easy to follow. At home, it was difficult to create a calm space where she and her 5-month-old boy could enjoy each other. On the EAS, she was caring but also slightly ironic towards him. He often looked away from her with a low-keyed facial expression. At interview #2, Ingrid still worried if she was a good mother and what would become of the boy. "So many memories came up from my childhood when he was born. I was so brittle". They had a good relation now, but she also said "he has no pa-

tience whatsoever". On the EAS, little had changed. She did not find a calm tempo and introduced many toys to the boy who reacted listlessly.

Ingrid went from clinical to sub-clinical EPDS scores. She had many traits of a *Participator*, being eager to learn more about her baby's personality and how her anxiety contributed to his state. The memories of her mother's drinking loomed large on her, and she had wanted to get these things off her chest in therapy. The aversive and somewhat sad baby seemed *Affected*. She said she felt neglected at the CHC. Applying the results from Study V, the two would have stood a better chance in MIP.

### 11.2.2 Fanny, an *Abandoned* (anxious/unready) with an *Unaffected* son in CHCC

Fanny spoke uninterruptedly about the sleeping problems of her 8-month-old boy, and even more so about details of her life to an extent that reminded me of a teenager. She felt attached and dependent on her parents. Now her husband had a temporary redundancy and she got little support from him. She felt lost as a mother but the EAS video showed her kind sensitivity and warmth and her son's clear response to her bids for play. Half a year later, she said the boy's sleeping problems had abated. She still spoke quickly but less anxiously about her husband's redundancy. Now she realized he had been depressed at the time of interview #1. She told me she still worried about her son's "slight signs of activity". Such signs, however, were not seen on the video and mother and child were top-rated by the external EAS raters.

Fanny's personal worries seemed not to have affected the boy. It is hard to tell whether this was due to his resilience or to her upholding a free zone where they enjoyed being together. Obviously, she trusted her own resources since she did not ask for additional help at the CHC. As she felt the boy was rather OK except for his sleeping problems, an analytic effort to contain her son might have felt strange to her, and she might have found MIP "too much".

### 11.2.3 Anita, a *Participator* (uncertain identity) with an *Affected* girl in MIP

This was yet another woman with a broken maternal relationship. Anita's mother had left her when she was a school-girl, only to return several years later. She reported that delivery was horrible, and then the girl contracted colic followed by sleeping problems. She felt guilty because she could not soothe her 4-month-old girl, and she also felt lost with no support from her parents. I noted the girl was fretful, and on the EAS video she seldom responded to her mother's insistent if not exaggerated bids.

Anita and her girl were in MIP three times weekly for four months. The analyst had felt alarmed about how Anita's internal image of her own mother distorted how she perceived the girl. For example, Anita often worried the girl would die any day, which the analyst thought resulted from Anita's unresolved maternal relation. This interpretation of the mother's "ghost in the nursery" was not, however, given to her. Instead the analyst told the girl, "Your mother is afraid you are going to die. Perhaps you sense Mom's fear but you don't quite understand what's going on and that frightens you."

This dyad seemed haunted both by maternal and infant "ghosts". Anita's ghost distorted her perceptions of the girl. The analyst did bring these issues up with her but found it more essential to address the girl's ghost; a mother signaling fears about her baby. This analyst-infant

dialogue was perceived by the mother, but the analyst was convinced that the girl listened attentively to her and was affected and helped by it. Anita's EPDS score plummeted to sub-clinical levels and the EAS scores improved substantially for both.

#### **11.2.4 Janet, an *Abandoned* (partner conflict) with her *Unaffected* son in MIP**

Janet's partner left her during pregnancy. At the interview, she declared her interest in psychotherapy but her history of many unhelpful therapies made me wonder if MIP would suffer the same fate. She took help from books on child-rearing which, however, did not assuage her worries that nursing had never worked well for her boy. At 3 months, she had weaned him and now wondered guiltily if it had affected him negatively. Their interaction was adequate according to the EAS raters. At interview #2, there was evident warmth between the two, but their interaction seemed hectic in that Janet gave him many toys without checking if he was interested. Consequently, EAS scores were now lower. She criticized the analyst for not guiding her on how to do with her boy and her partner. Not realizing the conflicting message, she said she disliked being guided by people. She would have appreciated if the analyst had spoken of her personal experiences in baby care but felt it inappropriate to bring this up. Surprisingly, in summing up she said she was quite satisfied with her treatment.

Janet's contradictions were reflected in the interview with her analyst, who felt this was "no easy mother" and was sad she did not get close to her. Sometimes it was hard to watch this insensitive yet warm mother go about with her son. The analyst found no way of bringing it up with Janet since she was afraid of evoking her guilt feelings. This hampered her from reaching the boy about what she felt was the matter: nursing had been interrupted too abruptly and he was still affected by it.

#### **11.2.5 The predictivity of ideal types and ratings of suitability**

Any interview involving treatment decisions raises the question of prediction: which treatment will probably yield the best result? In the RCT, the options were MIP and CHCC. I hypothesized that ratings of suitability for psychoanalysis would predict outcomes better than categorizations of ideal types. Rating suitability was part of my daily psychoanalytic work, whereas the ideal types seemed "impressionistic". Contrary to these hypotheses, the ideal types proved the better predictors. One explanation might be that I was no good at assessing suitability during interviews. Another possibility is that an adult seeking personal analysis is in a different position from a mother seeking help for herself and her baby. In the customary analytic interview, suitability implies that the patient regards his problems as being at least partly due to internal but unknown forces. In a mother-infant interview, the mother is uncertain whether the problems are due to forces within her or her child, and if the problems are grave or trivial. It seems this vagueness was best captured by the ideal types and thus, their predictivity proved to be better than that of the suitability ratings.

### **11.3 A COMPREHENSIVE MODEL OF THE PARENTS' ROLES IN ETIOLOGY AND TREATMENT**

The study focused on the clinical process and theory of MIP, its results compared with CHCC, the influences on outcome by the ideal type and suitability ratings and, finally, on the problems with assessing infant functioning. Besides these treatment issues, questions of etiol-

ogy are also important to address. Why do baby worries appear with certain mothers and babies? Though this question was not in focus of the study, it will be briefly approached here. Many factors impact the infant's development and thus contribute to baby worries; genetic risk factors (Rutter, 2002), infant prematurity (Schmucker et al., 2005) or illness, disrupted parent relationships and mental illness (Field, 2002; Laucht, Esser, & Schmidt, 1994; Martins & Gaffan, 2000). In the following, a comprehensive model will be outlined of how parents may contribute to baby worries and the implications this has for treatment. The model combines psychoanalytic and infant experimental research findings and concepts. The mother's and father's roles will be discussed separately.

### 11.3.1 The mother

#### 11.3.1.1 Pregnancy

Pregnancy may be considered a crisis (Bibring, Dwyer, Huntington, & Valenstein, 1961) for the woman. It challenges her with sharing parenthood with her partner, letting self-centredness yield to concern and responsibility, accepting her bodily changes, etcetera. She may feel proud, happy, and blissful but also depressed, anxious and fearful. Her ego-functioning may appear affected, as when she gets scatterbrained and sensitive. These traits make up her "primary maternal preoccupation" (Winnicott, 1956), which helps her to develop as a mother and thus, her child to develop as a person. For some expectant women, however, this preoccupation veers into anguish about the child and a sense of inability to take care of him/her. Such concerns may mark the germ of baby worries.

Another root of baby worries seems to be a mother's attitudes to separation, that is, letting go of her identification with the baby and accepting his need to become separate (Winnicott, 1960). "Louise", a CHCC mother, worried during and after pregnancy that something was wrong with the child, though medical checkups were negative. During the interview, she talked about her parents as if still living with them. Her identification with them emerged as she spoke of a mother whom she phoned for advice on trivial issues and of a father who always worried about his health. At interview #2, she said she wanted to wean her seven-month-old boy, but as soon as he whined she gave in to his demands. Louise's acceptance of her son's need to grow up into a separate person seemed muddled by her unresolved separation problems. She was assessed to be an "Abandoned" (anxious/unready) mother while the boy, at one month of age, seemed "Unaffected".

#### 11.3.1.2 The mother's mother

During pregnancy and motherhood, the mother's mother may provide help and advice. She functions as an "inner companion" who inspires the new mother to tackle and enjoy pregnancy and motherhood. When such a companion is stained by longstanding mother-daughter conflicts, problems may ensue. "Daisy", a CHCC mother, said she had phoned her mother for support as her son was constantly screaming. The reply was, "Call me later darling, there's a fabulous TV show right now". Old bitter feelings welled up in Daisy showing that the "scars of the preceding childhood conflicts" (Bibring et al., 1961, p. 18) were not healed. Now they re-emerged as hassles with her mother and as her own ambivalence towards motherhood.

Daisy was assessed as a *Participator* (uncertain maternal identity). She stated, "Motherhood isn't my thing. This makes me feel terrible. I don't feel in love with my son the way people say you should". Needless to say, she felt guilty. The EAS showed her intrusiveness that

probably compensated for what she sensed was her failing attunement to the boy. In parallel, he averted his mother by not soliciting responses in her. This gave him low EAS scores as well. At interview #2 Daisy felt as if “coming out of a fog”. She realized she had been depressed earlier but had reacted by being full of go and energy. Thus, her depression had remained concealed to her and her CHC nurse.

#### *11.3.1.3 Depression and baby worries – perspectives from experimental infant research*

During interviews many mothers, similarly to Louise and Daisy, were low-keyed, anguished and felt guilty. A salient question was if such a mother’s baby worries reflected her mood solely or if it had affected the mother-infant interaction as well. Every mother and baby is constantly building up and repairing their “dyadic states of consciousness” (Tronick, 2007a). These states are, rather, dynamic processes with moments of “match” followed by misunderstandings, dys-rhythmic interchanges, and mutual efforts at repair. We may agree that “disorganization is the wellspring of change and the new” (p. 351), but this positive formulation seldom applies to a depressed mother and her baby. This becomes easier to grasp if we remind ourselves that a baby’s moods result from the emotional tone of these dyadic states which, correspondingly, are influenced by the mother’s mood.

These processes have been experimentally demonstrated by, among others, Tronick’s group (Tronick, Als, Adamson, Wise, & Brazelton, 1978). They demonstrated infants’ violent reactions in the Still-Face paradigm. Then, they asked mothers to engage with their infants in an affectively flat manner (Cohn & Tronick, 1983). The babies protested, looked away, and became wary. The experiments were then transposed to studying how depressed mothers and their babies interacted (Tronick, 2007b). Similarly to “Daisy”, some were intrusive with the baby. In response the baby looked away, though some managed to limit the intrusion and accomplish repair. “Disengaged” mothers, on the other hand, were unresponsive and vaguely supported the baby’s activities. The infants protested or reacted with distress, sadness and “avoidance” (Fraiberg, 1982).

In the RCT, the EAS assessed such maternal behaviours. The Non-intrusiveness dimension captured mothers who poked the child or exhorted him to look at her, commented uninterruptedly on his behaviour, etcetera. The Sensitivity and Structuring dimensions captured the disengaged mothers. Mothers with sensitivity problems did not pick up the baby’s signals well. They “ran their own race” and seemed little aware of his reactions. Mothers with structuring problems seemed gawky, as if not knowing what to do with the child. In response some babies looked aside, fretted and squirmed in distress.

#### *11.3.1.4 Depression and baby worries – perspectives from psychoanalytic theory*

Tronick’s model from experiments with depressive mother-infant interactions illustrates Bion’s clinical analytic model of the container-contained interaction (1962). We may say that Bion, via his experience with adult patients, speculated on what a baby in Tronick’s experiments may have felt. Bion’s idea is that the infant is most of all frightened by being left alone with his anxieties (Grotstein, 1990). This feeling arises when the mother cannot contain his anxieties and make him feel he is receiving his “frightened personality back again but in a form [he] can tolerate” (Bion, 1962b, p. 307). If this happens, his anxiety may transform into a “nameless dread”. Paper II argues this is essentially anxiety that has not been translated into an “experience-able” message but remains signified at primitive and incomprehensible levels.

This will block the baby from elaborating anxiety into mental signs he can grasp and communicate comprehensively. The result may be a baby screaming or fretting in panic, the content of which he comprehends nothing. This explicates Tronick's model of a mother and child unable to repair their relationship. The infant's affects will remain dysregulated and he will establish basic moods of anguish, fretfulness, and depression.

A recurrent observation in the interviews was that depressed mothers had difficulties in containing the baby's anxieties. For "Nora", a MIP mother similar to Tronick's disengaged mother, depression prevented her from reacting spontaneously and empathically towards her six-month-old, a subdued and sad girl. The EAS video presented two isolated people rarely looking at each other. Nora might be experienced by her child as incomprehensible and confusing (Grotstein, 2008) because anxiety "bounced back" un-contained by the mother. In contrast, intrusive mothers like Daisy compensated for depression by being active and pushy. This left the baby's anxiety uncontained through another mechanism: the mother's comforting words were mixed with annoyed or inadequate comments, and her different levels of expression did not coalesce into one meaningful and sincere message.

Tronick's and Bion's models emphasize emotions as a primal force in infant development. "Infants see affective displays as carrying meaning about what a person is doing in relation to them and what the meaning of an event or action is" (Tronick, 2007a, p. 353). "Meaning" implies the emotional import in every human transaction. Similarly, when Bion says the infant learns from his experiences about love, hate, and knowledge (1962), he has in view the infant's *emotional* learning. Tronick built his model by observing dyadic interactions, while Bion built his on the interchange with adult patients. The reason Bion's model is essential to MIP work is that it addresses the most remote and primeval corners of the human mind, that is, the infant's fear of dying.

#### *11.3.1.5 Consequences for treatment*

Norman addressed the infant directly, since he conceived the child was haunted by anxiety-laden fantasies that needed to be contained. I propose the term "ghosts in the infant" for these fantasies. For Daisy's son, his ghost probably was a confusing blend of an active and curt, yet benevolent and caring mother. For Nora's daughter, it seemed to be a mother looking away when the girl was trying to catch her gaze. In treatment, an infant will seek containment from the analyst who is attentive to his communications. The analyst's attitude of "Talk to me baby, tell me what's the matter now" seems to be paralleled by the baby's attitude, "Talk to me analyst about my ghosts and tell me their names". Thus the ghost of Nic in Paper II was psychoanalyzed. He seemed to pay attention to me from about four weeks of age when I was addressing him. I spoke to him about how he split his images of the mother. One sweet and loving image corresponded to his left-hand side smooth nursing. The other image was the ghost, that is, an anguished and annoyed Mom. When under the influence of the latter, he fretted at the right-hand side nipple.

While Nic and I engaged in a "Talk to me baby – Talk to me analyst" interchange, it was evident that his caring and loving mother was haunted by ambivalence towards motherhood. Thus, it instantly became essential to address her with equal commitment. This shift into paying attention more equally to mother and baby was stimulated by the follow-up interviews and the analyst interviews. They illustrated the need for the analyst to pay attention to the



mother's ambivalence towards the baby *and* the analyst, her anxieties about the baby's development, her sore self-esteem, and her often pervasive sense of guilt. In 11.4, "Clinical conclusions", I will account for how the study of maternal and infant ideal types added to our understanding of therapy specificity (Orlinsky et al., 2004), that is, which patients with which kind of problems may benefit the most from MIP or CHCC.

### 11.3.2 The father

Why does the father occupy such little space in this thesis? One answer is simply that the RCT analysts worked with mothers and babies. Second, the psychoanalytic theories which MIP is based upon assume that the baby primarily involves his mother in his distress and anxiety. Compared with the father, pregnancy gives her a temporal, biological, and emotional lead in bonding with the fetus. By continuation, this makes her the first relational partner of the baby. The father is certainly deeply involved in baby worries, but this does not automatically imply that the *infant* views him as a primary object. However, this emphasis on the mother's impact has been criticized. Barrows (2003) suggests that both parents contribute to the "ghost in the nursery". Once the therapist has helped the infant free himself from its influence, he should work with both parents' projections on the child. It has also been argued (von Klitzing, 2003) that the infant forms specific relations to each parent and consequently, the father should be included in therapy. For similar views, see Fivaz-Depeursinge and Corboz-Warnery (1999) and Hedenbro (2006).

I will bring in three arguments for the mother's salient role in the genesis and treatment of baby worries. First, when discussing the parents' roles one must define which child age is implied. Barrows' and von Klitzing's cases were two years or more, whereas MIP was developed for pre-verbal infants who are closer to their mothers. Thus, the emphasis in MIP on the mother does not conflict at all with encouraging the father to support her and their baby, to actively participate in the baby's daily life, and to feel reassured that he and the little one will develop a much more specific relation as he/she grows a little older. The second argument for the mother focus is that for the analyst, the presence of both parents makes it cumbersome for him to focus and contain the baby's anxieties. If his task is to identify with the interacting partners (Lebovici & Stoléru, 1983), the adult interactions often take the lead and the direct contact between analyst and baby is obscured.

Thirdly, some controversy around the father might be redundant if we consider that containment has two components, maternal and paternal, though the latter is often neglected in discussions (Salomonsson, 1998). Maternal containment implies receiving and harbouring the infant's confused and confusing messages, whereas paternal containment implies creating an emotional distance to what is observed and differentiating and naming what is going on (Maiello, 2007). When the two aspects unite we may speak of containment in its full sense. There is thus an important place in MIP for the father as a *psychic function*. He is present in the analyst's mind as the paternal function of containment, while in the mother's and the infant's minds he represents *the Name of the Father* (Lacan, 1966). For Karen's mother (Paper D), saying no to her child felt cruel but saying yes for the n<sup>th</sup> time felt like slavery. She could not say, "Enough is enough, go to sleep, I want to be alone." This showed her problems with establishing the Name of the Father. Lacan stresses that it is in the very nature of the mother-infant dyad to vacillate between omnipotent illusions of what I label "the wonderful we" and more realistic notions. The function of the Name of the Father is to impose reality by institut-

ing the symbolic order (Bergès & Balbo, 2000). This will help the child accept “symbolic castration” (Dolto, 1982) and immerse herself in speech and language (Growinski, 2001). This “castration” is, so to speak, the customs duty that the baby must pay to enter the human community. The signifier for the “customs officer” is the Name of the Father representing the commandment to enter the symbolic order: to speak, gesture, talk, paint, sing and write to convey one’s wishes.

Karen’s whining suggested she needed help in establishing the symbolic order to start communicating more clearly. When I told her she sounded angry rather than sad, this expressed the Name of the Father. To put it differently, I combined maternal containment (empathy with her whining) with its paternal counterpart (calling a spade a spade), or the passion and measure (Baradon, 2005) that are essential to the mother-infant relationship. Containing Karen only in the maternal sense would imply that I were consumed by the illusion that she was so sad and needed endless nursing. Containing her only in the paternal sense would be equal to being brusque and unyielding. It was by combining paternal and maternal containment that changes were brought about. This was confirmed by her distinct roar and the weaning that ensued in treatment.

In summary, when discussing treatments of baby worries and if they should include both parents or only the mother, we must differentiate between the father as a real person and the paternal principle. In most cases of this study, with an infant mean age of five months, it seemed that the mother needed help with instituting the paternal principle, or the Name of the Father, in her relationship with the baby. To help her in this was the task of the analyst. In a few cases on the other hand, she needed help with sorting out her partner relation. Here, it seemed that couple therapy would have been more advisable. Finally, in discussing the real father’s position, I suggest that recommendations on dyadic vs triadic treatments should differ according to the child’s age. The younger the child, the closer is the mother-baby link and the more the father’s presence may obstruct a containing analyst-baby relationship and, in consequence, the reestablishment of a containing mother-baby relationship.

#### **11.4 CLINICAL CONCLUSIONS**

The conclusions from the results rested on two single-case histories and an RCT of 80 cases. The case histories informed on the theory and clinical process but not on the generalizability of MIP. The RCT outcomes were gathered systematically but offered only bird’s-eye views of long and complicated therapies. With these reservations heeded I will now discuss some lessons learnt.

The RCT demonstrated that irrespective of treatment mode, many outcome measures improved at interview #2. This might illustrate that irrespective of treatment, a mother’s worries decreased as her baby developed and she became more self-assured. The RCT also showed several significant or nearly significant differential between-group effects. MIP mothers indicated that they were less depressed and stressed, interviewer-rated dyadic relationships were more satisfying, and external raters noted an improved maternal sensitivity. These were major findings, since maternal depression (Murray & Cooper, 1997), stress (Essex et al., 2006) and sensitivity (Ziv, Aviezer, Gini, Sagi, & Koren-Karie, 2000) are known to be associated with the baby’s attachment development.

Neither MIP duration nor frequency significantly affected outcomes. One might ask if this proved that brief treatments were as efficacious as lengthy ones. However, the study showed such conclusions to be unfounded. Analysts and mothers were free to decide on these parameters. As judged from the interviews, the quartile that received the longest treatments, 35 MIP sessions or more, was characterized by severe depressions or anxiety states. They seemed to corroborate one of Singleton's (2005) explanations of why lengthy therapies seemed less effective: families in long term therapy might have more difficulties and this made mother and therapist opt for longer treatments. As for the frequency of sessions, the picture was more difficult to interpret. The analysts, following Norman's recommendations (2001), generally suggested high-frequency treatments to facilitate the containing link with the infant. These considerations met with others, such as the mothers' opinions and practical possibilities of coming to therapy. Thus, a mutual agreement was reached.

The fear that the CHCC group would yield more dropouts than the MIP group was not verified. Evidently, the interview was appreciated by most mothers and, furthermore, CHCC met the needs of many mothers. The low attrition rates in both groups satisfied important ethical concerns (Kendall et al., 2004) and increased the study's face validity. Effect sizes were similar to those of other studies (Lieberman et al., 1991; Murray, Cooper, Wilson, & Romaniuk, 2003). Comparisons should take into account that the study by Lieberman et al. used 1-year-long therapies but in this study they lasted 2–3 months on average. Further, the study by Murray et al. only showed effect sizes similar to this study immediately post-treatment, but follow-ups at a time corresponding to our interview #2 yielded very weak effects ( $d = 0.04$ ) on the EPDS. Another important factor when comparing this study to others is that CHC care was not a "no-treatment" control group. Rather, the nurses focused on psychological issues and a third of mothers in the CHCC group received extra treatment. Concerning statistical methodology, not all the studies referred in section 5.2 used intent-to-treat analyses, which probably excluded the most difficult or least motivated cases. The present study included the non-completers, and MIP was thus challenged to prove its effects on them as well. Another relevant comparison is with the WWW study (Cohen et al., 2002). One might speculate that the infant orientation in WWW, which the authors claim resulted in many beneficial effects, was also responsible for the effects of MIP on mother-baby relationships and interactions.

To a clinician, knowing general results may seem less relevant than which treatment to recommend a specific dyad. Study V shows that the *Participator* mother will probably benefit from MIP because of her commitment to the work it implies. This conclusion is supported by Lieberman et al. (1991) who found post-treatment assessments of maternal involvement in therapy correlating with outcomes on maternal interactive contributions. Similarly, if the baby is distressed, he will likely reach out to a therapist who addresses him. In such cases, the supportive and encouraging ingredients of CHCC do not suffice to change direction of the dyad's development. Conversely, an *Abandoned* mother seeking a guide on child care may find MIP distanced or strange, which might evoke a negative transference. Either the analyst must address this, or modify technique, or suggest another treatment mode. We must also recall that many cases developed well in CHCC. Some had good help from the nurse, other dyads just caught up with each other. For them, MIP's level of ambition might seem too high.

The ideal types were tested for reliability and were thus generalizable to other raters of the same sample. It is true that dissimilar samples and raters might yield other categories, but the ideal types emphasize that clinical sense and countertransference should contribute to treat-

ment suggestions. The study indicates that to rely solely on mother-report questionnaires on postnatal depression or infant functioning is clearly a less sensitive and specific method of detecting cases in need of help.

Regarding analytic technique, MIP as devised by Norman focused on the infant's internal situation and interaction with the analyst. The ideal type study indicated that the analyst must be attentive to the mother as well. He/she must "juggle" with two patients in his/her hands. Perhaps Norman's baby focus in writing and teaching may have led analysts at times to overlook the mother. This might negatively affect maternal sensitivity, especially among the *Abandoned* mothers. On the other hand, the analyst's containment of the baby was warmly acknowledged by many mothers. They conveyed that the analyst got in contact with the baby, which had greatly impressed them. Gertrude, a sad and weary mother, portrayed her 9-month-old as someone who could not leave her for many minutes. At the follow-up, she said in wonder and gratitude that MIP had helped her realize that her son was "already a little person". This had helped her in letting the boy, now 15 months, to play and have fun on his own.

A final point concerns the issue of assessing dyads when questionnaires and interaction ratings diverge. Which rating should we trust? My answer is: both. This leads to a conclusion that if therapists and nurses work together at the CHC, clinical and questionnaire assessments may be combined in a meaningful way. This would also make it easier for a mother to accept a suggestion by the nurse to see a therapist with her baby. Apart from the clinical advantages, everyday contacts between the CHC staff and the therapist might promote interest in research on this population. With these proposals, a few take-home messages are put forward.

- Baby worries are prevalent and will not always "pass away". Some dyads have sufficient resources to change development in a positive direction, but others need professional help. No single instrument will tell us beforehand to which group a dyad belongs.
- Clinical assessments need to be combined with questionnaires, and CHC care needs to be merged more organically with psychotherapeutic efforts.
- MIP seems to work at least as well as other systematically investigated therapies, especially for mothers intent on understanding psychological patterns involved in the disturbance. It also helps babies who are affected by the disturbance, in other words, the babies who suffer the most.
- The effects of MIP on maternal depression and stress are seminal, but the effects on maternal sensitivity and dyadic relationships are more direct indicators of a positive baby development.
- Maternal personality types and infant symptom types seem to differentially influence the outcomes on mother-child relationships and interactions. Therefore, some kind of qualitative assessment based on a clinical interview should precede decisions on which treatment mode to suggest. It is important that such assessment methods are further developed and systematically investigated upon.

## **11.5 STRENGTHS, LIMITATIONS, AND SUGGESTIONS FOR FUTURE RE-SEARCH**

The pre-treatment power calculations seemed adequate since several significant outcomes had effect sizes roughly corresponding to the ones we aimed at. The dropout rate was equal to, or somewhat lower, than in corresponding studies. Thus, mothers assigned to CHCC de-

cided to remain in the study to an extent similar to the MIP mothers. Some felt they received enough help at the CHCC. Others who were disappointed nevertheless seemed to profit from the interviewer's clinical experience in dealing with mothers and babies in states of anxiety and despair. Further studies should therefore preferably use clinically experienced clinicians who, in addition, are intent on systematically investigating their sample.

The study showed that MIP was efficacious in improving several outcomes when compared with CHCC, that is, the usual way of taking care of baby worries. However, the sample did not represent a cross-section of Stockholm mothers concerning education, ethnicity or family status. Future research should be directed towards subsamples with, for example, other cultural and family characteristics.

As for recruitment criteria, one might have chosen an objective measure such as a well-validated questionnaire for postnatal depression. However, this was rejected because the focus was on dyads in need, which included infant pathology and not only maternal depression. Therefore, the recruitment criterion "baby worries", assessed by the CHC nurses or by the mothers, was chosen.

Comparing an index treatment with the usual form of care has advantages and drawbacks. Since CHCC is less well defined and more heterogeneous than MIP, and we now can state that MIP seems more efficacious, it would be relevant to study if MIP differs from another well-defined mode of mother-infant therapy. Another relevant approach would be to compare MIP with and without the father being present. Such a project is actually considered.

Instruments were well-validated and targeted outcomes from multiple perspectives. The validity problems with the ASQ:SE, as shown in Paper III, seemed to relate generally to the objectivity of mothers assessing their babies rather than specifically to this instrument. A developmental test like the Bayley test (Bayley, 1969) would have been relevant but proved too time-consuming for the design. Finally, the PIR-GAS ratings might be suspected of a bias in favour of MIP, since I made the ratings and was trained in MIP and thus alleged to it. However, reliability tests with a non-alleged rater indicated that bias did not seem to have influenced my ratings.

When judging the significance levels and effect sizes of the study, one should keep in mind three factors that probably attenuated the between-group differences. One third of the CHCC mothers received additional psychological help. Many also expressed appreciation of the interview, which they experienced as a kind of additional consultation. Finally, MIP mothers also received CHCC, since all of them continued with their usual visits to the CHC nurse.

Follow-up was six months, a time frame common in infant studies. Since early interventions might be hoped to promote development on a lengthier basis, a second follow-up is desirable. This project is now continuing by investigating the sample when the children are 4.5 years.

## 12 SVENSK SAMMANFATTNING – SWEDISH SUMMARY

Avhandlingen hade tre mål. (1) Att undersöka en ny behandling för "spädbarnsproblem": mor-spädbarnspsykoanalytisk behandling (MIP). Denna del fokuserade på hur MIP tillämpas och vilka teorier som bäst beskriver den kliniska processen. (2) Att undersöka metoder för att bedöma hur spädbarn fungerar socialt och känslomässigt. Här studerades validiteten för ett frågeformulär som mamman fyller i. (3) Att jämföra utfallen för MIP med sedvanlig BVC-behandling, så kallad CHCC. Det skedde genom en randomiserad kontrollerad studie (RCT) som också undersökte hur patient- och behandlings-faktorer modererade resultaten.

**Material och metoder:** Det första målet uppnåddes genom att undersöka band-inspelade vinjetter från MIP-behandlingar utförda av författaren. Infallsvinklar kom från psykoanalytisk och semiotisk teori och från experimentell spädbarnsforskning. De andra och tredje målen uppnåddes genom en RCT av MIP och CHCC. Urvalet bestod av 80 mammor med spädbarn under 1.5 år, för vilka mammorna rapporterade "spädbarnsproblem". De rekryterades från ett antal BVC:n i Stockholm, Amningscentrum vid Karolinska Sjukhuset samt från föräldrasajter på internet. De randomiserades till MIP eller CHCC. MIP-behandlingar utfördes i Stockholm av psykoanalytiker vid Spädbarnsmottagningen. Uppföljningar gjordes efter ½ år.

**Instrument:** Ages and Stages Questionnaire: Social Emotional (ASQ:SE), Emotional Availability Scales (EAS), Edinburgh Postnatal Depression Scale (EPDS), Symptom Check List-90, Parent-Infant Relationship Global Assessment Scale (PIR-GAS), Swedish Parental Stress Questionnaire (SPSQ), journaler från barnläkare och BVC, samt patient och behandlingsfaktorer insamlade under intervjuerna.

**Resultat:** (1) Den teoretiska diskussionen fokuserade på kommunikationen mellan analytiker och spädbarn. Spädbarnsforskning tycktes stödja kliniska erfarenheter att babyn kan förstå känslomässiga inslag i samspelet med analytikern. Semiotisk teori användes för att beskriva samspelets olika nivåer. Psykoanalytisk teori användes för att förklara MIP:s verkningsmekanismer. De bestod i att analytikern "höll" eller "smälte" mammans och barnets ångest samt översatte deras känslomässiga kommunikation till mera begripliga budskap. Det visade sig även att erfarenheter av MIP kan vidga analytikerns känslighet för sina vuxna patienters icke-verbala kommunikation.

(2) Studien av frågeformuläret om babyns fungerande, ASQ:SE, gjordes på poäng före behandling. Den visade ASQ:SE:s koppling till mammans skattningar av depression, stress och allmänna psykiska symptom. Däremot var kopplingarna svaga till externa bedömningar av mor-baby-relationen och samspelet. Detta visade på problem med att bedöma spädbarns funktion i kliniska urval samt på behovet att utveckla tillförlitliga mätinstrument.

(3) RCT:n visade att MIP gav signifikant bättre effekter på mamma-depression (EPDS), mamma-sensitivitet (EAS) och mor-barn-relation (PIR-GAS) samt nästan signifikanta effekter på mamma-stress (SPSQ). Kvalitativa bedömningar, så kallade idealtyper, gjorda på mor och barn före behandling visade sig moderera några utfall. "*Participant*" ("Deltagare") mammor förbättrade sin EAS sensitivitet signifikant mer av MIP än av CHCC. Ett motsatt men icke-signifikant mönster fanns bland "*Abandoned*" ("Övergivna") mammor. "*Affected*" ("Påverkade") spädbarn förbättrade sina PIR-GAS poäng samt deras mammor sina EAS sensitivitetspoäng signifikant mer av MIP än av CHCC.

**Slutsatser:** MIP tycks väl lämpad för mammor som vill delta aktivt i psykoanalytiskt arbete och som känner att de bidrar till spädbarnsproblemen fast de inte förstår hur. För dem som mest känner sig övergivna och ängsliga behöver behandlingen vara mer stödjande. Påverkade spädbarn tycks bättre hjälpta av MIP än av CHCC, sannolikt genom analytikerns direkta baby-tilltal. Kommande studier bör jämföra MIP med andra metoder och på andra typer av urval. Långtidseffekter behöver också utvärderas.

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