ARTICLE

A RANDOMIZED CONTROLLED TRIAL OF MOTHER–INFANT PSYCHOANALYTIC TREATMENT: II. PREDICTIVE AND MODERATING INFLUENCES OF QUALITATIVE PATIENT FACTORS

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ABSTRACT: A randomized control trial was performed on 75 dyads in Stockholm, Sweden, with infants under $1\frac{1}{2}$ years. It recruited mothers who worried about the babies, themselves as mothers, and/or the mother–baby relationship. Two groups of mother–infant dyads were compared. One received only Child Health Centre care (the "CHCC" group) while the other received mother–infant psychoanalytic treatment plus CHCC (the "MIP" group). Significant treatment effects were found on mother-reported depression, interviewer-rated dyadic relationship qualities and externally rated maternal sensitivity, and near-significant effects on mother-reported stress, all in favor of MIP. The objective of this study is to investigate the predictive and moderating influences on outcomes by qualitatively assessed maternal and infant characteristics. The qualitative factors covered maternal suitability for psychoanalysis, and "ideal types" of mother and child, respectively. Outcome measures from two interviews with a 6-month interval were depression (Edinburgh Postnatal Depression Scale (J. Cox, J. Holden, & R. Sagovsky, 1987), stress (Swedish Parental Stress Questionnaire (M. Östberg, B. Hagekull, & S. Wettergren, 1997), distress (Swedish Symptom Checklist-90 (SCL-90; L.R. Derogatis, 1994; M. Fridell, Z. Cesarec, M. Johansson, & S. Malling Thorsen, 2002) and infant social and emotional functioning (Ages and Stages Questionnaire: Social–Emotional (J. Squires, D. Bricker, K. Heo, & E. Twombly, 2002), relationship qualities (Parent–Infant Global Assessment Scale (PIR-GAS; ZERO TO THREE, 2005), and videotaped interactions (Emotional Availability Scales, Z. Biringen, J.L. Robinson, & R.N. Emde, 1998). Suitability for psychoanalysis predicted outcome only on the PIR-GAS. Two overarching maternal ideal types were created, reflecting their attitude to the psychoanalytic process: "Participators" and "Abandoned." The Participators benefited more from MIP than they did from CHCC on maternal interactive sensitivity. A contrasting, but nonsignificant, pattern was found among the Abandoned mothers. Two ideal types of babies emerged: those "Affected" and "Unaffected"

This project is registered at Clinicaltrials.gov, MIPPS-01. Statement on informed consent can be found in the Method section.

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by the disturbance, respectively. Among Affected babies, dyadic relationships and sensitivity among their mothers improved significantly more from MIP than they did from CHCC. The superior effects of MIP applied especially to Participator mothers and Affected infants. For Abandoned mothers and Unaffected infants, CHCC seemed to be of equal value.

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Mother–infant relationship disturbances (Zeanah, Larrieu, Scott Heller, & Valliere, 2000) represent a substantial healthcare problem, presumably as prevalent as postnatal depression (O'Hara & Swain, 1996; Wickberg & Hwang, 1997). Several treatment methods exist, such as Infant–Parent Psychotherapy (Fraiberg, 1980), Interaction Guidance (McDonough, 1995), Watch, Wait and Wonder (Cohen et al., 1999), and Marte Meo (Hedenbro, 1997). To a varying extent, these methods address psychological factors in the parents which impede their relationship with the child. Alternatively, they focus on improving the dyadic interaction by providing guidance, sometimes assisted by video recordings that are discussed with the parents.

Mother–Infant Psychoanalytic treatment (MIP) is a recent addition to the psychoanalytically oriented techniques (Norman, 2001, 2004). In MIP, the analyst's containment (Bion, 1962) of the infant's distress is believed to bring about change. This implies that the analyst receives and emotionally processes within him- or herself the infant's distress, and then communicates it back in a form that the infant can assimilate. The distressed baby is assumed to seek containment from the analyst; thus, the infant–analyst dialogue becomes a major vehicle of change. It aims at liberating the infant's affects that are assumed to be expressed in his or her symptoms such as whining, fussiness, sleeping and feeding problems, mood disturbances, and attachment problems. In MIP, the mother is always present and is emotionally affected by the infant–analyst interchange. As she witnesses their interaction, she will understand more about the links between her baby's affects and symptoms, which enables her to resume maternal care. For this to occur, the analyst needs to pay close attention to the mother's self-esteem, which often vacillates.

After promising clinical results had been accumulating in the Mother–Infant Psychoanalysis Project of Stockholm, a randomized controlled trial (RCT) was set up. Power calculations suggested a design in which 80 dyads were to be assigned to MIP or Child Health Centre Care (CHCC). Most RCTs in the field (Cohen et al., 1999; Cooper, Murray, Wilson, & Romaniuk, 2003; Cooper et al., 2009; Lieberman, Weston, & Pawl, 1991; Robert-Tissot et al., 1996) have indicated some significant treatment effects for the index treatment. Often, the effects refer to mother-reported depression, but they also may include improvements of dyadic interactions. In contrast, patient and treatment factors that might predict and moderate outcomes have been less studied. In the present study, the focus is on such factors, with the further aim of possibly facilitating clinical treatment decisions for individual cases.

THE PRIMARY RCT

In this study (Salomonsson & Sandell, 2011), 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. Our inclusion criteria were that the mother should express significant concerns regarding herself as a mother, her infant's well-being, and/or the mother–baby relationship. In addition, the following criteria had to be met: infant age under

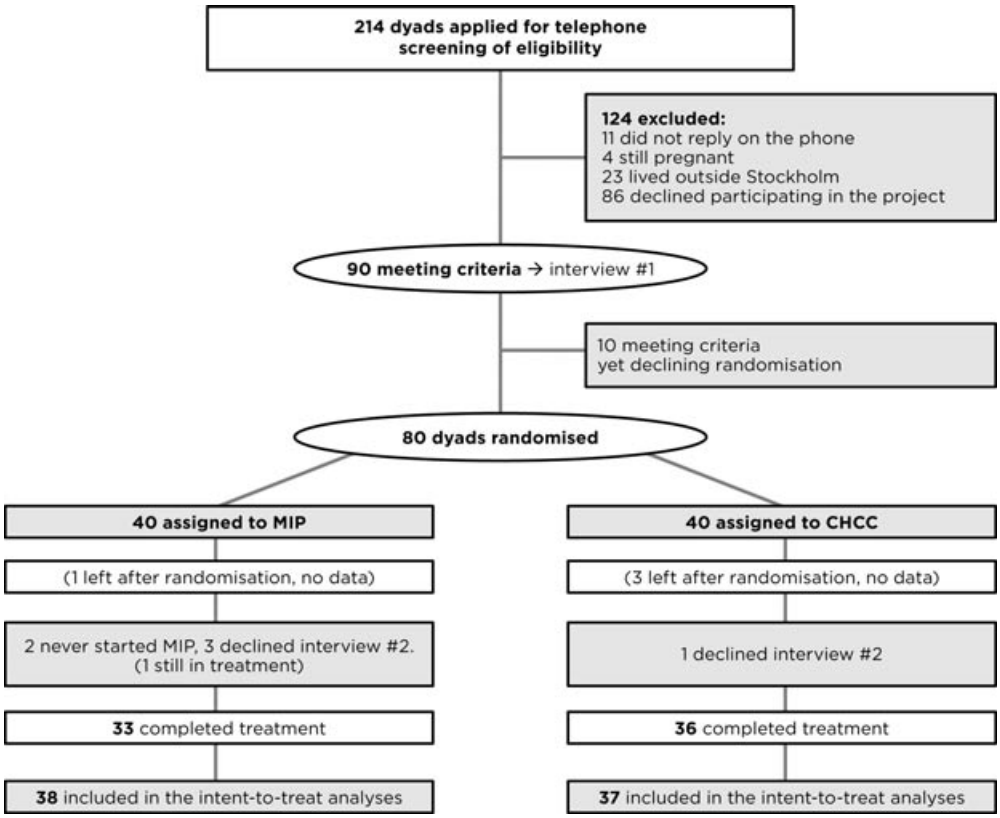

FIGURE 1. Flowchart of participants and randomization. Cases in parentheses were not included in the analyses.

18 months, duration of worries exceeding 2 weeks, domicile in Stockholm, and reasonable mastery of Swedish. Exclusion criteria were maternal psychosis or substance dependence according to the *Diagnostic and Statistical Manual of Mental Disorders, fourth edition* (American Psychiatric Association, 1994) to an extent that would preclude collaboration.

Mothers were to contact us by telephone or e-mail. A brief telephone interview ensued 1 or 2 days later. Figure 1 shows that 214 mothers contacted the project. Of these, 38 lived outside Stockholm, were still pregnant, or did not answer the telephone, and thus were excluded. Eighty-six excluded themselves, explaining that their concerns had abated or that they just "wanted to support mother–infant research." The remaining 90 mothers and babies were interviewed face-to-face between October 2005 and January 2009. A pediatric checkup also was arranged. During the interviews, 10 mothers declined randomization because they did not feel that the level of their worries warranted a possible assignment to MIP; they were not included in the outcome analyses. We thus randomized 80 dyads, after the mothers had given their informed consent. The intent-to-treat analyses used 75 randomized cases that had provided pretreatment data. Three cases randomized to CHCC and one to MIP dropped out immediately without providing any questionnaire data. In addition, one dyad was still in MIP treatment at project termination. These five cases were not included in the analyses.

TABLE 1. *Pretreatment Data; Prevalence (%) or Mean Scores (SD)*

Measure	MIP	CHCC	Reference Data
EPDS	12.24 (4.64)	11.51 (4.80)	5.65,[a] 6.92[b]
ASQ:SE	2.03 (1.15)	1.90 (1.17)	0.87[c]
PIR-GAS	68.0 (11.4)	69.6 (12.9)	
SPSQ	3.01 (0.49)	2.92 (0.60)	2.5[d]
GSI	0.99 (0.61)	0.96 (0.50)	0.45,[e] 0.34[f]
EAS Maternal Sensitivity	.56 (.14)	.60 (.14)	
EAS Maternal Structuring	.67 (.15)	.71 (.14)	
EAS Maternal Nonintrusiveness	.82 (.16)	.78 (.20)	
EAS Infant Responsiveness	.60 (.18)	.67 (.19)	
EAS Infant Involvement	.59 (.20)	.64 (.22)	
DC:0–3R, Axis 1 diagnosis	19%	8%	18[g]
DC:0–3R, Axis 2 RPCL notation	81%	86%	8.5[g]
DC:0–3R, Axis 3 diagnosis	16%	3%*	
DC:0–3R, Axis 4 stressors	62%	87%*	

Note. $n = 38$ for MIP and 37 for CHCC, except for the EAS (ns = 33 and 30). MIP = Mother–Infant Psychoanalytic treatment; CHCC = Child Health Centre Care; EPDS = Edinburgh Postnatal Depression Scale; ASQ:SE = Ages and Stages Questionnaire: Social-Emotional; PIR-GAS = Parent–Infant Relationship Global Assessment Scale; SPSQ = Swedish Parental Stress Questionnaire; GSI = General Severity Index of the Symptom Check List-90; EAS = Emotional Availability Scales. DC:0–3R = Diagnostic Classification ZERO-TO THREE (3rd ed., Rev.); RPCL = Relationship Problems Checklist.
[a] Seimyr, Edhborg, Lundh, & Sjögren (2004).
[b] Wickberg & Hwang (1997).
[c] Squires, Bricker, & Twombly (2004) (mean scores/item of "no-risk" infants <1 year).
[d] Östberg et al. (1997).
[e] Fridell et al. (2002).
[f] Börjesson, Ruppert, & Bågedahl-Strindlund (2005).
[g] Skovgaard et al. (2008).
* $p < .05$ (between-groups).

The mean values concerning pretreatment scores and ratings were at clinical levels comparable with similarly aged norm samples and cutoff scores. The EAS dimensions showing the most compromised scores were Maternal Sensitivity, and Child Involvement and Responsiveness. Table 1 details the clearly clinical nature of the sample. It shows the prevalence of Caesarean deliveries and delivery complications, medical illnesses, and prior psychiatric disorders. Concerning breastfeeding at 6 months and age at delivery, the prevalence was similar to that of Stockholm mothers. In contrast, in our sample, single mothers were slightly less frequent, the educational level was slightly higher, and immigrants were slightly less numerous.

Concerning treatments, CHCC involved checkups with CHC nurses as part of regular Swedish infant healthcare. Nurse calls follow a schedule; weekly the first month, monthly up to 4 months, and every second month during the rest of the first year followed by checkups at $1\frac{1}{2}$, 3, 4, and 5 years. Nurses are encouraged to attend to the psychological needs of parenthood (Mittag, 2009) and may offer parental groups, infant massage, or International Child Development Programmes (Hundeide, 2007). They should promote a secure attachment and seek to detect depression through the Edinburgh Postnatal Depression Scale (EPDS; Cox, Holden, & Sagovsky,

1987). If a nurse feels the problems need further attention, she may offer an appointment to a pediatrician or a psychologist from the child psychiatric team. In Stockholm, practically all mothers with infants below 1 year take part in this care (Blennow, Lindfors, Ekroth de Porcel, Lindstrand, & Örtenstrand, 2007), and so did the mothers in this study.

After 6 months, follow-up interviews were made with mother and child. They revealed that for the CHCC group, the staff had initiated brief psychotherapies in 4 cases. Another 4 mothers sought psychotherapy, and 4 were on antidepressants. Among this CHCC subgroup of 12 mothers, 1 received cognitive behavioral therapy and 1 psychodynamic therapy while 1 dyad received brief mother–infant therapy. The rest comprised brief supportive contacts with a psychiatrist ($n = 3$), a nurse ($n = 1$), a social worker ($n = 2$), a family therapist ($n = 1$), or a general practitioner ($n = 2$). On average, their contacts comprised four (± 2) sessions. These additional treatments were considered part of the usual care at CHCs, and their data were included in the outcome analyses as CHCC cases without any corrections.

The dyads assigned to mother–infant psychoanalysis also continued with regular care at the CHC, but for the sake of brevity, this group was called the *MIP group*. The design thus implied a "constructive treatment strategy" (Kazdin, 1998, p. 143), in which one index treatment is added to a baseline intervention that is common to both groups. The analysts (seven females, one male) treated a median of 4 cases. Three were MDs, and five had a M.Sci. in psychology. Their mean psychoanalytic experience was 19 years ($SD = 7.4$); 12 years ($SD = 5.6$) treating children and 3 ($SD = 1.1$) years treating mothers and infants. They were trained in MIP by Norman; after his death, they continued as a weekly peer group supervising each others' audiorecorded sessions. The median number of sessions ranged from 0 to 101 ($Mdn = 23$). For the two cases with 0 values, mothers changed their minds and never started MIP; nevertheless, they were included in the intent-to-treat analyses. Session frequency was two to three times weekly. Treatment integrity was assessed after the end of each treatment by separately interviewing the analyst and the mother. A nine-item list covered the analyst's contact with the mother and child and the interventions used. Each item was rated on a scale of 1 to 4 (*optimal integrity*). Internal consistency (Cronbach's α) was .78. Total scores ranged from 20 to 36 ($M = 28.7$, $SD = 4.0$). The most common reason for lower scores was an insufficient mother–analyst working alliance, or a failure to perceive the mother's covert negative attitudes toward the analyst.

Three primary outcomes were set up; for the maternal domain, mother-reported depression; for the infant domain, mother-reported infant social and emotional functioning; and for the relational domain, an interviewer-based assessment. Secondary outcomes were, for the maternal domain, mother-reported stress and general psychic distress. Two more secondary outcomes evaluated video-recorded mother–infant interactions and the levels of healthcare consumption at the CHC.

Data were collected through pretreatment interviews with mother and baby, with follow-up interviews after 6 months. The psychoanalysts also were interviewed separately posttreatment to assess treatment integrity. Outcomes were analyzed by linear mixed-effects analyses, a method that is becoming increasingly used for intent-to-treat analyses (Chakraborty & Gu, 2009; Mallinckrodt et al., 2003).

As shown in Table 2, the analyses yielded significant effects favoring MIP on maternal depression and sensitivity and dyadic relationship qualities. Effects were nearly significant on mother-reported stress, but nonsignificant on general distress and mother-reported infant functioning as well as on maternal structuring and nonintrusiveness, and infant responsiveness and involvement on the interaction videos. Scores on CHC consumption showed a substantial

TABLE 2. *Modeled Pre- and Posttreatment Scores (SD) by Treatment Assignment.*

Outcomes	MIP Pre	MIP Post	CHCC Pre	CHCC Post	*F*	*df*	*p*	Cohen's *d*	Becker's	CI 95%
Primary										
EPDS	12.29 (4.64)	6.28 (4.11)	11.44 (4.77)	7.99 (4.55)	5.894	69.3[a]	.018	0.39	0.57	0.46–4.68
ASQ:SE	2.04 (1.15)	1.00 (.72)	1.90 (1.17)	1.14 (.70)	1.255	73.4[a]	.266	0.20	0.25	0.21–0.75
PIR-GAS	67.76 (11.4)	83.53 (9.9)	69.60 (12.9)	76.67 (13.2)	8.210	68.3[a]	.006	0.58	0.84	2.6–14.7
Secondary										
SPSQ	3.01 (0.49)	2.67 (0.48)	2.92 (0.60)	2.75 (0.54)	3.901	67.9[a]	.052	0.14	0.37	0.00–0.32
GSI	0.98 (0.61)	0.57 (0.45)	0.96 (0.50)	0.68 (0.44)	2.038	71.2[a]	.158	0.25	0.11	−0.05–0.31
Sensitivity	.56 (.14)	.64 (.12)	.59 (.14)	.58 (.17)	4.872	61.8[a]	.031	0.42	0.67	0.08–1.61
Structuring	.67 (.15)	.71 (.12)	.70 (.14)	.69 (.16)	1.718	59.9[a]	.195	0.15	0.36	0.14–0.65
Nonintrusiveness	.82 (.15)	.79 (.16)	.78 (.20)	.73 (.23)	0.039	121.7[b]	.844	0.27	0.02	0.59–0.72
Responsiveness	.60 (.18)	.69 (.13)	.66 (.19)	.67 (.20)	2.701	63.0[a]	.105	0.17	0.47	0.13–1.34
Involvement	.60 (.19)	.68 (.14)	.62 (.22)	.67 (.19)	0.444	60.8[a]	.508	0.10	0.22	0.54–1.09

Note. MIP pre = mean MIP pretreatment scores, etc. CI 95% = Confidence intervals at 95%. Sensitivity, Structuring, and Nonintrusiveness refer to the maternal dimensions of the EAS (Emotional Availability). Responsiveness and Involvement refer to the infant dimensions (see Table 1 footnote for remaining acronymns).
Repeated covariance type:
[a]unstructured correlations;
[b]diagonal.

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positive skew, and nonparametrical tests yielded nonsignificant effects. In the ensuing analyses, these statistics have been excluded.

THE PRESENT STUDY

During the interviews, mothers and infants often appeared heterogeneous clinically, and many discordances were found between questionnaire scores and external interaction ratings. For example, some therapists reported serious concerns about infants whose mothers had scored normally on the questionnaire on infant functioning. Similarly, a mother might report no depression whereas the interviewer assessed her as clinically depressed. To shed more light on these discordances and to assess the sample from a qualitative vantage point, we decided to systematize our interview impressions. The purpose also was to test whether these categorizations might illuminate therapy specificity (Orlinsky, Rönnestad, & Willutzki, 2004); that is, which patients with which kind of problems would benefit the most from MIP or CHCC.

We approached this question by exploring how our qualitative pretreatment characteristics of mothers and babies were associated with the outcomes. The interviewer categorized mother and child into "ideal types" (Wachholz & Stuhr, 1999). This implies forming internal images and labels after careful observations of single subjects. An ideal type arises in the observer's mind through a process of induction and cannot be found in reality (Philips, Werbart, Wennberg, & Schubert, 2007). Nevertheless, it is generalizable and gives "shape and sense to disparate, empirically observable attributes" (Wachholz & Stuhr, 1999, p. 330). Ideal types have been used to categorize psychoanalytic processes and results (Leuzinger-Bohleber & Target, 2002) and types of suicidal behavior (Lindner, 2006; Lindner, Fiedler, Altenhofer, Götze, & Happach, 2006). To our knowledge, our study is the first to use them as outcome predictors.

Apart from dividing mothers and babies into ideal type*s*, assessments also were made of the mother's "suitability for psychoanalysis." The interviewer, an experienced child and adult psychoanalyst, assessed the mother's motivation to work in psychoanalysis, her psychological mindedness, her focus on symptom relief or understanding, her patience or eagerness to obtain instant results, and her interpersonal trust or suspiciousness. In contrast to the ideal type*s* that were nominal variables, the suitability variable was an ordinal variable.

Aims and Hypotheses

The aim was to investigate if maternal suitability for psychoanalysis and ideal types of infant and mother predicted or moderated the outcomes in the MIP and CHCC groups. For the ideal types, no directional hypotheses were set up; rather, the aim was to explore their influence on outcomes. Maternal suitability for psychoanalysis, on the other hand, was hypothesized to positively predict outcomes mainly on mother-related outcomes in the MIP group.

METHOD

Sample

The sample was the same as that for the primary RCT; it consisted of 75 cases (MIP group: $n = 38$; CHCC group: $n = 37$).

Assessments

The videotaped, semistructured interviews covered the mother's experiences of the pregnancy, the delivery, and the postnatal period as well as her relationship with her parents, partner, and

child. The interviewer also assessed the baby's state by observing his or her state and interaction during the interview as well as by asking the mother about her experiences of the baby at home. A 10-min video recording for external dyadic-interaction assessments also was made, upon the mother's consent, when she and the child were alone in the room. Data were collected from interviews, questionnaires, and independent ratings of mother–baby interactions.

The timing of pretreatment assessments, randomizations, and outcome evaluations were thoroughly considered. The recruitment telephone calls showed that many mothers were uncertain about treatment and wary of opening up to a stranger. We concluded that neither randomizations nor questionnaires could be administered before the face-to-face interview since such a procedure would risk putting off many mothers and thus skew the sample in favor of the more motivated ones. Therefore, we decided to randomize to MIP or CHCC at the end of Interview 1, when a stable contact had been established with the mother. This also enabled us to explore her emotional reactions to the assignment, which was ethically preferable and was assumed to reduce the dropout rate. After the interview, she filled in questionnaires and returned them via postal mail. The qualitative ideal types and suitability for psychoanalysis were assessed by the interviewer, who was blind to questionnaire data and external interaction ratings, and thus were wholly based on his clinical impressions.

Pretreatment Qualitative Assessments.

Infant ideal types. The interviewer identified two infant types. They comprised his interview impressions of the baby and the mother's account of the baby's state at home.

The *baby affected by the relationship disturbance* cried or reacted with other negative emotions when the mother spoke of distressing topics or he or she fretted, arched away, or avoided gaze contact when she comforted him. Babies who had learned to crawl might crawl away or turn their back on the mother. With their unhappy or tense expressions, they indicated an avoidant attachment pattern (Ainsworth, Blehar, Waters, & Wall, 1978). Some children around 12 months demonstrated a disorganized attachment (Lyons-Ruth & Jacobvitz, 1999; Main & Solomon, 1986), for example, by being overly active and jittery. Sexualized contacts were seen when an already weaned baby anxiously went for the mother's breast.

The *baby unaffected by the relationship disturbance* seemed safe and calm even when the mother was addressing painful topics or was crying or raging. The baby would then look gently and curiously at her or just go on playing peacefully. The mother might convey similar events at home. For example, the baby was sleeping and eating well and was cheerful even when she was anxious or depressed.

Affected babies constituted 46% and *Unaffected* babies 54%. The distribution of *Affected* and *Unaffected* was 50% for each type in the MIP group and 51 to 49%, respectively, in the CHCC group. For a reliability check, two external psychoanalysts with lengthy experience in child work rated video-recorded interviews of 20 cases. The cases were selected to portray a wide variety of infants. Since the infant types were qualitative categories, intercoder agreement was used as a measure of reliability. Cohen's κ was estimated to .80.

Maternal ideal types. Initially, five types emerged. *The chaotic mother* was desperate and overwhelmed by the present situation. She felt powerless in taking care of the baby and herself. She did not get enough sleep or food, she found no time for herself or her husband and friends, and she felt quite lonely. Her story was sometimes slightly incoherent and difficult to follow during the interview. She indicated that she was aware that she contributed to the disordered situation, though she could not understand how she did this.

The depressed/reserved mother was sad, crying, and sighing, and regretted that she could not love her baby enough. She could not feel joyful and vitalized when she was with her baby. Guiltily, she felt that other mothers were better and wondered why she felt this way. Sometimes, her positive words combined with her sad expressions suggested a "smiling depression."

The mother with an uncertain maternal identity had been focusing on her professional career for a long time. She was an ambitious and a conscientious woman whose self-esteem depended much on her professional status. Now that she had become a mother, she felt uncertain and unprepared. She wanted to provide the best for her baby, but seemed inhibited in her "primary maternal preoccupation" (Winnicott, 1956). Thus, she seemed unable to temporarily regress to understand her baby's wishes and enjoy his or her company.

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 the baby in a childish way. In contrast to the mother with an uncertain maternal identity, she seemed unable to temporarily progress to understand the baby. Sometimes, her personal need of being taken care of seemed to compete with her wish to take care of her baby. This could prevent her from perceiving when the child signaled his or her needs.

The mother conflicting with her partner was preoccupied with the child's father, either because he had left her or because he emotionally neglected her. Their quarrels left her abandoned, bitter, and angry. Still, she could set these feelings aside when being with her child. She seemed quite capable of taking care of the baby and found comfort and joy in the baby's company.

The MIP group contained 4, 9, 11, 11, and 2 cases, respectively, and the CHCC group 4, 11, 10, 11, and 1 cases, respectively, of the five types in the order as presented earlier. The types were thus similarly divided among the two treatment arms. To increase group sizes, they were subsumed under two Overarching Maternal Ideal Types (OMIT); the "Abandoned" and the "Participators." The Abandoned mothers felt forsaken either since their partner had left them or because they felt the child competed with their need to be taken care of themselves. Furthermore, they seemed intent on receiving expert advice on how to handle their child or partner relation. They comprised the anxious/unready and conflicting mothers. In contrast, the Participators conveyed that they wanted to actively take part in a psychoanalytic exploration. They also indicated that they somehow contributed to the present problems within the mother–infant relationship. They comprised the chaotic, the depressed/reserved, and the uncertain mothers. The ratio of Participators to Abandoned mothers was about 2:1 in both treatment groups.

For a reliability check, the same judges and the same cases were used as those for the infant types. Intercoder agreement of the two OMITs yielded a κ of .89. The coding manual may be obtained upon request from the first author.

Mother's suitability for psychoanalysis. Before treatment, the interviewer rated the mother's suitability for psychoanalysis on a 4-point scale. This was a quantitative measure, and intraclass correlations (ICC) were calculated from ratings by the interviewer and the same judges as those used for the ideal type assessments. The ICC for the 20 video-recorded interviews was .79. The coding manual may be obtained upon request from the first author.

Primary Outcome Instruments.

Maternal depression. The EPDS (Cox et al., 1987) contains 10 items, with a total score range of 0 to 30. Cronbach's α for pretreatment scores was .82.

Infant social and emotional functioning. The Ages and Stages Questionnaire: Social–Emotional (ASQ:SE; Squires, Bricker, Heo, & Twombly, 2002) was used, with separate versions for babies 3 to 8 months, 9 to 14 months, and 15 to 20 months. Depending on the age group, there are 22, 25, or 29, respectively, items. They are rated on a 4-step scale, with the exception of four items rated on a 2-step scale. We used Swedish translations approved by the constructor. To compare across age groups, mean scores across all items (total score/number of items) are reported. The oldest version was used for only one child. For the two youngest age intervals, Cronbach's α for pretreatment scores was .79 and .66, respectively.

Mother–baby relationship. The Parent–Infant Global Assessment Scale (PIR-GAS; ZERO-TO-THREE, 2005) ranges from 0 (*documented maltreatment*) to 99 (*well-adapted*). The first author rated all cases. To check interrater reliability, an independent psychologist without allegiance to MIP rated 20 pre- and posttreatment interviews. ICCs were .90 for the first set and .86 for the second set. To further investigate any possible rater allegiance, we tested Rater $\times$ Time $\times$ Treatment interactions in a univariate analysis of variance, $F(1, 60) = 0.408$, $p = .525$. Thus, allegiance was assumed not to have influenced ratings in any direction. The outcome analyses used rater means.

Secondary Outcome Instruments.

Maternal stress. The Swedish Parental Stress Questionnaire (SPSQ; Östberg, Hagekull, & Wettergren, 1997) was used. It is a self-report questionnaire with 34 items rated 1 to 5. The mean score was calculated. Cronbach's α for pretreatment scores was .88.

Maternal psychological distress. The Swedish Symptom Checklist-90 (SCL-90; Derogatis, 1994; Fridell, Cesarec, Johansson, & Malling Thorsen, 2002) is a self-report questionnaire with 90 items rated 0 to 4. The General Severity Index (GSI), the mean across items, was included in the analyses. The α for pretreatment scores was .96.

Mother–infant interaction. The Emotional Availability Scales (EAS; Biringen, Robinson, & Emde, 1998) assessed 10-min, videotaped dyadic interactions for Maternal Sensitivity, Structuring, Nonintrusiveness (Nonhostility was omitted due to low interrater reliability.), and Infant Responsiveness and Involvement. Since the ranges of the original dimensions varied between 1 and 5, and 1 and 9, respectively, all were transformed into a common scale ranging between 0 and 1 (*optimal interactive contributions*). This followed principles adopted in the fourth edition of the EAS (Biringen, 2009). ICCs of interrater reliability for each subscale at Interview 1 were .72, .68, .84, .72, and .76, respectively. The outcome analyses used the rater means.

Statistics

SPSS Version 15.0 was used for the analyses. Suitability for psychoanalysis is a continuous factor and was correlated with each outcome score while controlling for individual pretreatment scores. Analyses were run on the whole sample as well as separately on the MIP and the CHCC groups. For the qualitative ideal types, a linear mixed-effects analysis was performed with treatment group, time, and the two OMITs and the two infant types, respectively, as independent variables. This was repeated for each outcome instrument, for which either a diagonal or unstructured correlations covariance type was chosen according to which yielded the best fit.

To test the statistical significance of outcomes of MIP and CHCC for the infant types and the OMITs, we performed multiple regressions. Values for *b* and the *SE* were obtained for each treatment group and each type, and then entered into the formula shown next (Cohen & Cohen, 1983, p. 111). The criteria chosen for statistical significance was $z > 1.96$, $p < .05$ (two-tailed test).

$$z = \frac{b_{MIP} - b_{CHCC}}{(se_{MIP}^2 + se_{CHCC}^2)^{1/2}}$$

Ethical Approval

The project was approved by the Swedish Central Ethical Vetting Board, Dnr ö 16–2005. For details on this subject, refer to the primary study (Salomonsson & Sandell, 2011).

RESULTS

Infant Ideal Types

The two infant types differed on most measures at Interview 1. Affected babies were reported to have more problems on the ASQ:SE, $t = -3.209$, $p = .002$, and their mothers reported more stress on the SPSQ, $t = -2.219$, $p = .030$. They had less optimal PIR-GAS relationships, $t = 8.599$, $p = .000$, maternal sensitivity, $t = 3.042$, $p = .003$, and structuring, $t = 2.076$, $p = .042$. Furthermore, Affected babies were less responsive, ($t = 3.167$, $p = .002$, and involving, $t = 3.500$, $p = .001$.

Irrespective of treatment mode, *Affected* babies improved more than did the Unaffected ones from Interviews 1 to 2; the ASQ:SE, $F(2, 67.2) = 4.638$, $p = .013$, the PIR-GAS, $F(2, 66.40) = 39.588$, $p = .000$, the SPSQ, $F(2, 67.0) = 4.177$, $p = .020$, the Maternal Sensitivity, $F(2, 58.9) = 6.254$, $p = .003$, Infant Responsiveness, $F(2, 60.8) = 5.824$, $p = .005$, and Involvement, $F(2, 8.109$, $p = .001$. Over and above this effect, the Treatment × Time × Infant Type effects were significant on the PIR-GAS and all EAS dimensions except Maternal Structuring. This is demonstrated in Table 3, which shows outcomes for each infant ideal type and each treatment mode. For the sake of comprehensiveness, gain scores are presented instead of the pre- and posttreatment scores that were used in the analyses.

We then explored the three-way interactions by comparing pre/post differences for treatment modes and infant types. To test the significance of these differences, *z* values were calculated based on the unstandardized regression coefficients of the two types in MIP and CHCC, respectively. For the Affected infants, $z = 2.06$, $p = .040$; for the Unaffected infants, $z = 0.71$, $p = .478$, on the Maternal Sensitivity dimension. Thus, MIP was superior in improving Maternal Sensitivity scores among the Affected infants. Figure 2 illustrates this by the angle between the continuous line with an upward slope for the Affected babies in MIP and the dotted horizontal line for the Affected babies in CHCC. The effect size (Cohen's *d*) was 1.02.

Figure 3 indicates that the PIR-GAS scores of Affected infants improved significantly more in the MIP group than they did in the CHCC group, $z = 2.89$, $p = .004$. No such differences were found among Unaffected infants, $z = 1.66$, $p = .097$. Thus, MIP was superior in improving the PIR-GAS scores among Affected infants and their mothers (Cohen's $d = 1.21$).

TABLE 3. *Gain Scores According to Infant Ideal Types and Treatment Groups.*

	MIP Unaffected Babies	CHCC Unaffected Babies	MIP Affected Babies	CHCC Affected Babies	*F*	*df*	*p*
Primary							
EPDS	5.03	2.39	7.12	4.65	0.081	2, 67.9	.923
ASQ:SE	0.68	0.64	1.33	0.89	0.363	2, 67.2	.697
PIR-GAS	9.44	5.60	22.78	8.11	3.685	2, 66.4	.030
Secondary							
SPSQ	0.25	0.09	0.48	0.28	.302	2, 67.0	.740
GSI	0.41	0.25	0.45	0.32	.379	2, 67.4	.686
Maternal Sensitivity	.00	−.04	.14	−.01	3.374	58.9	.041
Maternal Structuring	.01	−.03	.07	.00	2.087	60.7	.133
Maternal Nonintrusiveness	−.09	−.05	.04	−.05	5.464	58.9	.007
Infant Responsiveness	.03	−.05	.016	.05	3.701	60.8	.030
Infant Involvement	.00	−.07	.17	.13	5.946	58.9	.004

Note. For all measures, a positive number indicates improvement. *F* and associated *p* values refer to the interactions between time, ideal type, and treatment group (see Table 1 footnote for explanation of acronyms).

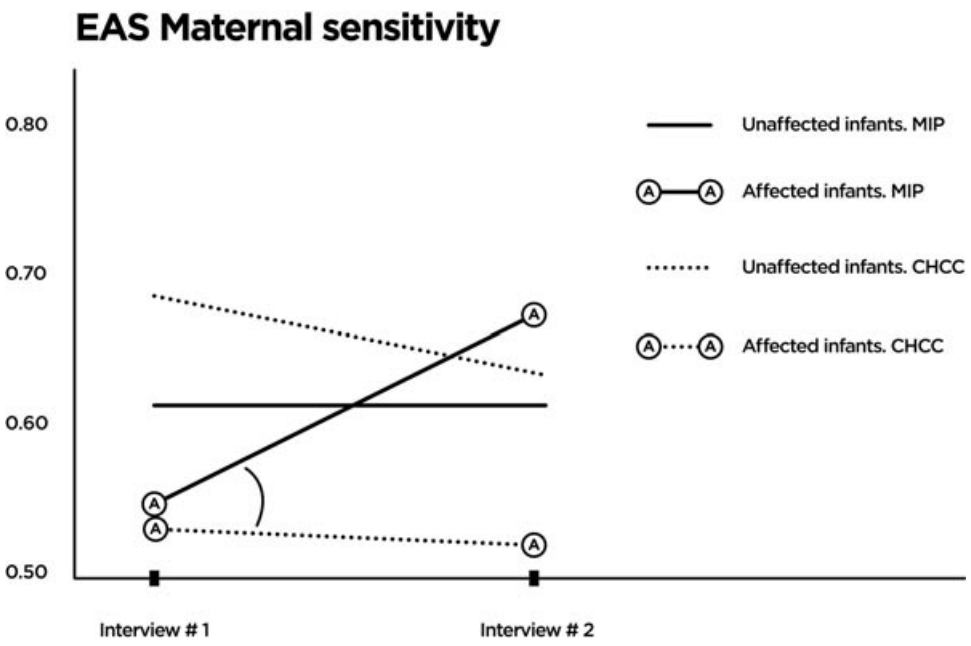

FIGURE 2. EAS maternal sensitivity scores pre- and posttreatment according to treatment modality and infant types. High scores are optimal.

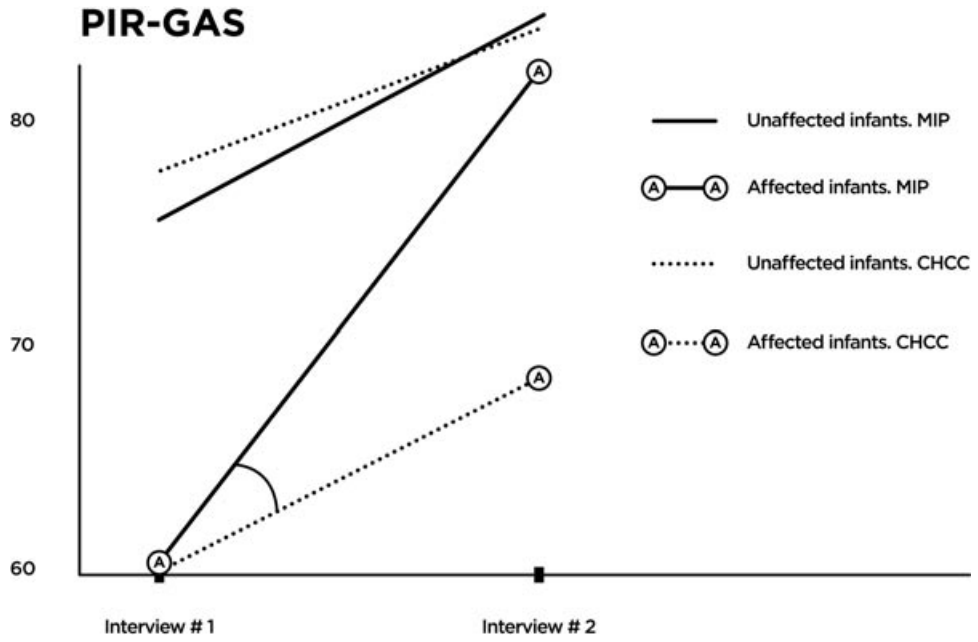

FIGURE 3. PIR-GAS scores pre- and posttreatment according to treatment modality and infant types. High scores are optimal.

Overarching Maternal Ideal Types (OMIT)

The PIR-GAS scores at Interview 1 of the Abandoned mothers were more optimal, $t = -2.418$, $p = .018$, and their sensitivity tended to be likewise, $t = -1.890$, $p = .064$, compared with that of the Participators.

Table 4 shows gain scores of outcomes for each OMIT and treatment mode. Treatment × Time × OMIT effects tended to be significant for the SPSQ and were significant for maternal sensitivity on the EAS.

The differential treatment effects for the two OMITs were nonsignificant for the SPSQ, $z = -0.71$, $p = .48$, and -0.78, $p = .44$ (see Figure 4). In contrast, for maternal sensitivity on the EAS, the Participators improved after MIP whereas the Abandoned mothers decreased. A reverse pattern was found in the CHCC group (see Figure 5). For the Participators, these differential effects were significant, $z = 2.78$, $p = .005$, $d = 1.07$. For the Abandoned mothers, they were nonsignificant, $z = -0.48$, $p = .631$.

Suitability for Psychoanalysis

In the MIP group, ratings ranged 1 to 4 ($M = 2.43$, SD 0.89). In the CHCC group, the corresponding values were 1 to 4 ($M = 2.41$, $SD = 0.83$). Partial correlations analyses were performed on all posttreatment outcome variables while controlling for their pretreatment scores. Suitability correlated significantly with the PIR-GAS for the entire sample, $r = .294$, $p = .015$, $df = 66$. The more suitable the mother had been rated, the more satisfying was the dyadic relation 6 months

TABLE 4. *Gain Scores According to Maternal Ideal Types and Treatment Groups.*

	MIP Participators	CHCC Participators	MIP Abandoned	CHCC Abandoned	F	df	p
Primary							
EPDS	6.19	3.82	5.38	2.71	0.402	4, 64.3	.807
ASQ:SE	0.87	0.80	1.26	0.72	2.172	4, 65.0	.082
PIR-GAS	17.86	6.98	11.04	7.58	2.023	4, 64.7	.102
Secondary							
SPSQ	0.38	0.23	0.30	0.09	2.505	4, 65.0	.051
GSI	0.44	0.29	0.42	0.26	0.841	2, 65	.504
Maternal Sensitivity	.14	−.02	−.05	.01	3.858	4, 59.4	.007
Maternal Structuring	.09	−.02	−.05	.04	2.146	4, 57.9	.087
Maternal Nonintrusiveness	.03	−.10	−.17	.06	2.202	4, 57.3	.080
Infant Responsiveness	.14	−.01	.00	.07	1.371	4, 59.3	.255
Infant Involvement	.13	.04	−.03	.06	1.500	4, 56.8	.214

Note. See Table 3 for specifications.

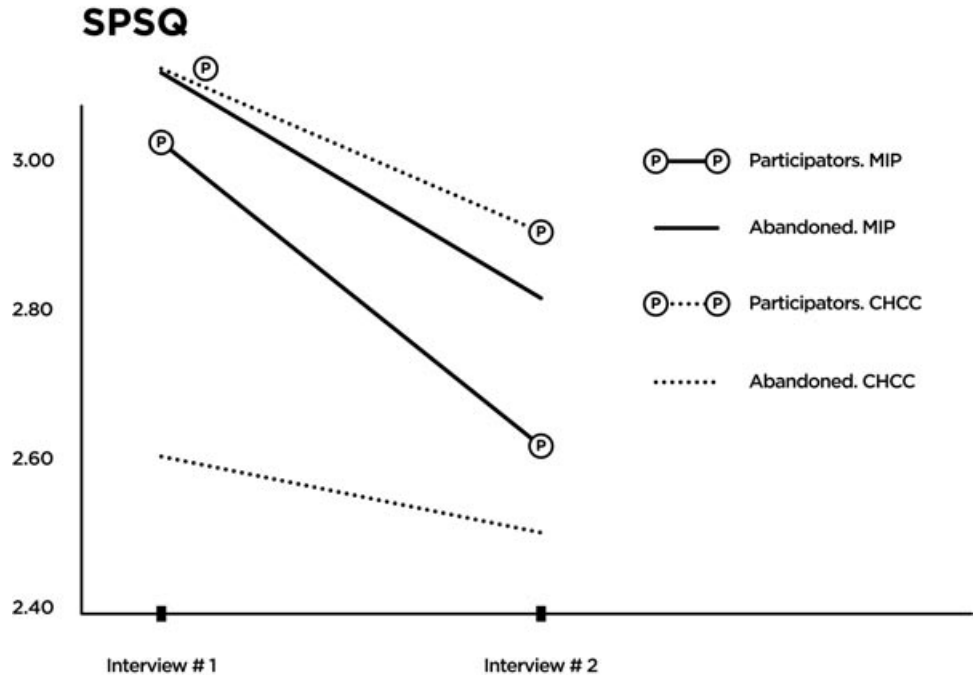

FIGURE 4. SPSQ mean scores pre- and posttreatment according to treatment modality and overarching maternal types (OMIT). Low scores are optimal.

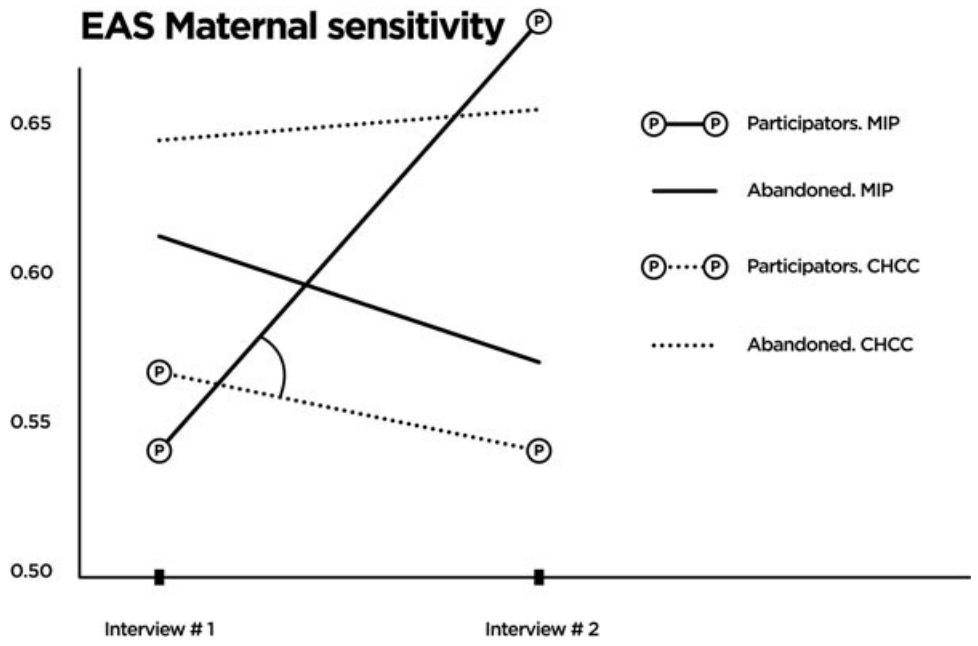

FIGURE 5. EAS maternal sensitivity scores pre- and posttreatment according to treatment modality and overarching maternal types (OMIT). High scores are optimal.

later, regardless of treatment. This was specifically the case for the MIP group, $r = .406$, $p = .021$, $df = 30$, whereas CHCC showed a similar, but nonsignificant, tendency, $r = .202$, $p = .253$, $df = 32$. There was a similar tendency for the SPSQ scores among MIP cases, $r = -.315$, $p = .074$, $df = 31$. For the CHCC cases, the corresponding results were nonsignificant, $r = .145$, $p = .405$. We tested the significance of the differences between the two r values, $z = 1.815$, $p = .070$.

Finally, we investigated to what extent the OMITs were overlapping with the other moderating factors. Comparisons with the mothers' suitability for psychoanalysis in a t test yielded $t = 0.426$, $p = .671$, $df = 72$. The OMITs and the infant types were more closely associated, $\chi^2(1, 74) = 6.44$, $p = .011$. The Abandoned mothers were more closely associated with the Unaffected infants whereas Participator mothers more often had Affected babies.

DISCUSSION

The present study aimed at exploring moderator effects beyond the main effects that were reported in our primary study (Salomonsson & Sandell, 2011). We thus tested the three-way interactions between the ideal types, treatment modes, and time on the outcome variables. Affected infants gained more from MIP than they did from CHCC on the PIR-GAS; that is, on their relationships with the mothers. Similarly, MIP mothers of Affected infants improved more than did CHCC mothers of similar infants on the EAS Sensitivity dimension. The maternal types showed an interaction effect for Maternal Sensitivity on the EAS. The Participators improved

significantly after MIP, but deteriorated after CHCC whereas a reverse, but nonsignificant, pattern was found for the Abandoned mothers. Finally, suitability for psychoanalysis had been hypothesized to positively predict MIP results on maternal distress, but this tended to be confirmed only for the SPSQ. More conclusively, suitability predicted PIR-GAS outcomes both in the entire sample and among MIP cases.

The primary study yielded significant effects in favor of MIP on mother-reported depression (EPDS), externally rated relationship qualities (PIR-GAS) and EAS Maternal Sensitivity, and nearly significant effects on stress (SPSQ) whereas effects on general psychological distress (GSI), the remaining EAS dimensions, and mother-reported functioning (ASQ:SE) were nonsignificant. In the present study, we wanted to investigate whether qualitative pretreatment assessments of mothers and babies might reveal moderator effects. If so, they might deepen our understanding of which cases should be recommended MIP or CHCC. This would be interesting also because few mother–infant psychotherapy studies have investigated the moderating influence of qualitative maternal or infant characteristics (Lieberman et al., 1991; Robert-Tissot et al., 1996).

Before discussing our results, we would like to address important validity issues. The first concerns our criteria for including cases in the statistical analyses. In the primary study, 75 intent-to-treat cases were analyzed. An intent-to-treat analysis "compares the study groups in terms of the treatment to which they were randomly allocated, regardless of protocol deviations and participant compliance or withdrawal" (Chakraborty & Gu, 2009, p. 2). However, in prediction studies, it may be problematic to draw conclusions based on those cases that never started the assigned treatment or failed to provide outcome data. As seen in Figure 1, there were six such cases. Nevertheless, to be consistent with the primary study, we decided to use its intent-to-treat sample of 75 cases. Post hoc, we compared our results with those of the 69 (33 + 36) dyads that actually underwent their assigned treatment and provided data at both interviews. The prediction patterns were almost identical.

The second validity issue concerns the timing of the assessments of the qualitative patient factors: They were made after we had randomized the dyads to MIP or CHCC. This could influence assessments since the interviewer, as a psychoanalyst, might be biased. The fact that there was a stronger association between the PIR-GAS outcomes and the suitability ratings in the MIP group than those in the CHCC group might suggest such a bias, but the interrater reliability checks on the PIR-GAS ratings contradicted this. Therefore, the fact that the predictions of suitability on the PIR-GAS were significant only in the MIP group seemed to indicate a genuine treatment effect of MIP. Suitability ratings thus probably reflected a specific susceptibility for mothers to improve their relations with the child, and especially so if they had taken part in a psychoanalytic intervention.

Ideal type assessments contained no implications of how they would benefit from treatments. Thus, no prognostic implications were associated with the types. Second, mothers and infants were categorized before the interviewer knew the results of any ratings. To further investigate whether randomization or interviewer bias had influenced the categorization, we compared the proportions of Affected and Unaffected babies as well as of Participator and Abandoned mothers in the MIP and CHCC groups. The very similar distributions across treatment groups strongly support that neither the randomization nor the interviewer's bias influenced the categorizations.

Another validity issue that needs to be approached is the assessments of pretreatment outcome measures. We have argued why we randomized at the end of Interview 1. Due to fluctuating treatment motivations and anxieties expressed by the mothers on the telephone, we

suspected that randomizations before the interviews would risk putting off many ambivalent mothers. This would skew recruitment in favor of the more motivated women. Arguably, the fact that mothers were randomized before they filled in their pretreatment questionnaires might have generated negative reactions among the CHCC mothers and thus influenced their responses. However, there were two strong indications against this assumption. One indication was that the pretreatment scores were similar in the MIP and CHCC groups, as seen in Table 1. The other indication was that if randomization had created disappointment among CHCC mothers, the dropouts would have been more frequent in this group; this was not the case.

Concerning the external validity of the ideal types, they may be regarded as subjective and personal assessments. In this, they are similar to all other qualitative assessments. The proviso for their validity is that they are created through "the disciplining of experience and the systematic use of methods" (Leuzinger-Bohleber & Bürgin, 2003, p. 14). In this project, the types were based on criteria that the interviewer established during the assessment process. For the infants, the validity of the two types was strengthened by the significant differences found on most initial ratings and scores. For maternal types, it was surprising that the Participators scored somewhat less optimally than did the Abandoned. This finding contradicts the intuitive notion that their sense of participation in the relationship problem would imply that they were functioning better with their infants. Furthermore, the interreliability checkups with two other professionals yielded high ICCs. Although we do not contend that our ideal types exhaustively cover the general characteristics of mothers and infants with baby worries, our findings contradict the suspicion that these ideal types would be idiosyncratic and apply only to the interviewer.

We now turn to the results. For the infant types, when we isolated outcomes of the Affected infants, the effects significantly favored MIP over CHCC on the EAS Maternal Sensitivity and the PIR-GAS (ds = 1.02 and 1.21, respectively). For the entire sample, the RCT effects had been smaller (ds = 0.42 and 0.58, respectively). We concluded that because we had included Unaffected babies in the RCT, they concealed the more conspicuous MIP effects for Affected babies. This study made it evident that MIP was especially efficient in improving relationships and maternal sensitivity among the Affected babies. In short, MIP was especially helpful to the babies who had suffered the most.

As for the maternal types or OMITs, we will first discuss to what extent they were overlapping with the other moderating factors. One might reasonably suspect them of coinciding with the mothers' suitability for psychoanalysis; however, this was overruled in a t test that yielded nonsignificant results. Thus, the OMITs said something different about the mothers as compared to the suitability ratings. In contrast, the OMITs and the infant types were significantly associated. Somewhat unexpectedly, the Abandoned mothers and Unaffected infants were more closely associated whereas Participator mothers were more associated with the Affected babies. One might speculate that the Abandoned mothers' main reasons for approaching the project were their personal problems whereas their babies were more healthy than those of the Participators.

The largest OMIT × Treatment × Time effect appeared for Maternal Sensitivity on the EAS. To explain the moderating effects of the OMITs, we speculated that the two treatment modes appealed to mothers with different personality traits. Perhaps a factor in the personalities of the Abandoned mothers was not adequately met by their analysts, which prevented the mother–infant interactions from improving in MIP. This factor might be their expectations of receiving help rather than actively contributing to therapy. When these expectations were not fulfilled in treatment, they felt abandoned. On the other hand, the Participators' needs seemed inadequately

handled in the CHCC paradigm, which gave them insufficient space to vent and work through their baby worries. This might have rubbed off on their sensitivity with the child.

One approach to understanding the moderating effects on the Maternal Sensitivity outcomes is that MIP is an insight-oriented technique whereas CHCC more resembles supportive "developmental guidance" (Lojkasek, Cohen, & Muir, 1994, p. 211). Individuals who gain the most from insight-oriented therapies are often self-reflective (Beutler et al., 2004) or tend to describe their problems in terms of interpersonal difficulties rather than symptoms (Horowitz, 1993, cited in Roth & Fonagy, 2005, p. 470). Such descriptions would apply particularly to the Participators. When a Participator mother witnessed the analyst and the baby interact, we believe she used her self-reflective capacities and participant attitude to increase her sensitivity to her child. Also note that MIP seemed to improve maternal sensitivity especially for those mothers who had Affected infants. We believe that the analyst's calm and attentive way of speaking to the child helped the mother to be more relaxed and to listen more intently to the baby's signals.

The results were different for the Abandoned mothers. We speculate that this was related to their treatment expectations. It has been shown that outcomes for patients who are stressed by trauma or bereavement (Jones, Cumming, & Horowitz, 1988) associate positively with a "wish for a sympathetic authority figure" (p. 52). We assume that such wishes were more pronounced among our Abandoned mothers, and that they were more readily satisfied by the nurses within the CHCC paradigm than by the MIP analysts.

Suitability for psychoanalysis. Suitability ratings predicted PIR-GAS outcomes. Mothers suited for psychoanalysis developed more optimal child relations, especially if they were in MIP treatment. Since suitability ratings included areas such as the mother's insightfulness and self-awareness, there was an overlap with maternal reflective functioning (RF; Fonagy, Steele, Steele, Moran, & Higgitt, 1991). RF implies reflecting on the intentions of oneself or of others as well as understanding motives, thoughts, feelings, and behavior in oneself and others. We suggest that RF contributed to the PIR-GAS score in that it assisted the mother to understand the baby when he or she was fussy or "impossible." Studies supporting this view include one that found associations between maternal RF and balanced child representations (Schechter et al., 2005), another that demonstrated how RF mediated the relationship between maternal and infant attachment security (Fonagy et al., 1995), and one that linked RF 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) and on adult patients in brief psychodynamic therapy (Karlsson & Kermott, 2006). In summary, we believe the associations between suitability for psychoanalysis and dyadic relationship qualities could be partly explained by the mother's reflectiveness.

Clinical conclusions. The differential treatment effects on Affected and Unaffected infants and on the two OMITs have implications for treatment choice. Affected infants and their mothers seem to gain more from MIP than they do from CHCC. This would support the argument that especially such dyads should be recommended for MIP. The differential effects of Participators and Abandoned on the mother's sensitivity imply that her personality also should be considered in clinical assessments and treatment decisions. Mothers who expect help and feel forsaken, either by their partner or by having become responsible for a baby, should probably not be recommended MIP in the prescribed form. Psychoanalytical abstinence and too much focus on the infant may yield negative reactions in the mother. Rather, a more supportive stance should be taken. Clinicians might suggest to a mother conflicting with her partner that she invite her

partner to the sessions, although such a setting may diminish the clinician's baby focus. An alternative is, of course, to suggest couple's therapy.

In contrast, Participator mothers in MIP may experience important improvements for themselves and their babies. Especially, MIP seemed to enhance their understanding of the baby's predicament as well as how they interacted with him or her. Participators in CHCC, on the other hand, conveyed that they felt lost and that no substantial changes had occurred in relation to the baby, which made them worried and concerned. Some had gotten extra support, most often with antidepressants or personal cognitive or psychodynamic psychotherapy. Many, however, conveyed that they had wished for more specific help with their baby relationship.

The moderating effects of the qualitative pretreatment assessments emerged most strongly on the interviewer-rated relationships and externally rated Maternal Sensitivity, but not on the other EAS dimensions. The interviewer was probably able to notice more subtleties in the motherhood constellation (Stern, 1998) than were the external EAS raters, who were assessing only a 10-min video. Furthermore, some mothers conveyed embarrassment at being filmed. The interviewer could explore beyond their feelings and thus avoid erroneous impressions that the dyad's interactive style was relatively permanent (Robert-Tissot et al., 1996). These arguments, however, do not explain why the moderating effects were significant only on Maternal Sensitivity, but not on the other EAS dimensions. On the other hand, sensitivity seems to be particularly closely linked to measures of infant mental health, such as attachment classifications (Aviezer, Sagi, Joels, & Ziv, 1999; Ziv, Aviezer, Gini, Sagi, & Koren-Karie, 2000.). Therefore, it was clinically important that the ideal types predicted notably sensitivity among the EAS dimensions.

LIMITATIONS

A third of the CHCC mothers received extra treatments, as detailed earlier. Thus, the content of CHCC was more heterogeneous than that of MIP. On the other hand, it was homogenous in that it consisted of a national program with a lengthy tradition and an ambitious training. For the absolute majority of the CHCC mothers, the lion's share of treatment was the scheduled visits to the CHC nurse, to whom they turned for advice and support regarding their child. Nevertheless, to get a more well-defined basis for comparison, further studies might compare MIP with another specific mother–infant psychotherapeutic modality.

The results indicate that some outcomes were nonsignificant because the sample contained a number of infants who functioned relatively well. Another study might specifically use infant suffering as an inclusion criterion. However, such criteria are difficult to define and to uphold in a treatment study.

One final limitation is the short follow-up of 6 months. We are now pursuing a follow-up study when the children have reached $4\frac{1}{2}$ years.

ACKNOWLEDGMENTS

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Groschinsky, Jerring, Kempe-Carlgren, Mayflower Charity, Solstickan and Wennborg Foundations, and the Research Advisory Board of the International Psychoanalytical Association.

APPENDIX

Psychoanalytic Suitability

1. *Dubious.* The mother seems interested in obtaining a quick symptom relief rather than insight into her or the baby's role in the present problems. She has no ideas how the present problems arose, or she regards them as chance events or biologically rooted. She does not seem motivated to the work implied in mother–infant psychoanalytic treatment (MIP). She seems indifferent or somewhat suspicious about the idea of it.
2. *Moderate.* The mother says she is interested in understanding her or the baby's role in the present problems. However, the interviewer is not convinced of these claims. For example, he wonders about the mother's endurance in working regularly with the analyst and about her psychological-mindedness.
3. *Quite good.* The mother seems interested in understanding her or the baby's role in the present problems, and she shows signs of psychological-mindedness. The interviewer is convinced of her aptitude, yet without feeling this is a "100% case."
4. *Excellent.* The mother is definitely interested in understanding both her and the baby's role in the present problems. She expresses confidence in the ensuing project and demonstrates psychological-mindedness by giving examples from herself and/or the baby, or their interaction.

MATERNAL IDEAL TYPES

The captions are illustrated by quotations from mothers interviewed. Care has been taken to assure anonymity.

The Chaotic Mother

- is desperate or overwhelmed by her present situation. She conveys this in a sometimes incoherent language loaded with negative affects and stress.

  He [the boy's father] and I have been, we are still, together, but we moved apart. It's been quite intensive. He's got a bigger apartment than me. Could be a way of checking, like . . . so we fixed his apartment this summer. We moved there, but things worked really bad. So I moved back, and he [the mother points at her son but is referring to the boy's father] is still living there. There's been a lot of moving back and forth.

- feels powerless taking care of the baby and herself.

  You know, the economy, neither he nor I have any money. That could be stressing, too [Meanwhile, the boy is turning an electric light on and off, banging a cupboard door he cannot open.]

  The baby vomits. The mother says "this could be something . . . but the CHC nurse says it's OK."—So you are not worried about his vomiting . . . . "No, but now that you say so, I start thinking

I am! Or, no, rather, I noticed it myself, or . . . . But if the baby vomits only once it's not dangerous, they say . . . but the CHC nurse says it's OK. I'm terribly worried people will judge me for being a bad mother. My psychiatrist says I could bring the baby when I visit him but I don't want to, because my baby feels my stress, sort of."

- does not get enough sleep or food, finds no time for herself or her husband and friends, and feels lonely and deserted.

The boy's father has been treating me really bad, often yelling at me. My self-confidence is zero by now . . . . Life is like a lottery, one day you win, the other day you loose.

The baby was so stressed, already at birth. Just kept vomiting. I nursed him, he sucked a little, but then he vomited again . . . . I have a lot of stress myself. I react swiftly and big, like. And when I was pregnant he kept on kicking in my belly, and I felt so stressed because of all my job tasks and because my stress would get on him, too.

The Depressed/Reserved Mother

- is sad, crying, and sighing, feeling she cannot love her baby enough.

I'm terribly afraid my depression will affect him. I get this anxiety, the boy goes to his father and then I got even more anxious that he won't attach to me. When something bad happens, I always feel it's my fault. I have such a bad self confidence, that's why I sound out others' opinions.

- has guilt feelings of not being a good mother.

This was going to be the finest time of my life. I wanted to be everything to her, be a good mother, but then I just got this bad conscience! She is well and lovely, while other women get sick babies with problems for the rest of their lives. I got this wonderful child I cannot rejoice in, I who should be grateful!

It's like my girl owns my body, no, no we have no sex anymore, my husband and I . . . I'm tired all the time and when she babbles I get problems with focusing on my tasks. I should be happy, but I have this feeling of being fettered by her all the time. I'm ashamed of it.

Sometimes, an emotional distance creates a discordance between words and expressions (cf. "smiling depression").

One mother talks quickly with a monotonous voice while equally monotonously rocking her baby. Her eyes are tearful and blank.—You are telling me you got very depressed a few days after delivery. "Yeah, you know, it was only after some time I started noticing he was developing. In the beginning, they just lie there, more like a lump of jelly."

People told me you could hear from the baby's way of crying what they wanted. I was never able to interpret the girl that way . . . . I get this notion she hasn't got that attachment to me.

During the play sequence, the baby turns away from the mother who is reading a book. It looks like two people turned away from each other.

The mother talks about the lack of support from her partner and his family, and her feelings of loneliness. Yet, most of the time she is smiling faintly, which creates a discordant impression.

The Mother with an Uncertain Maternal Identity

- has been focusing for long on her professional career and now feels unprepared for motherhood.

I felt I got to have an education and a perfect job and a perfect husband before even starting to think about having a child. Then in the end, after all these problems getting pregnant, I come home with a wonderful son—and I feel completely unprepared! I wanted to give him back to the delivery staff and put his baby clothes back in the locker.

She wants to provide the best for her baby but feels uncertain about managing.

There's this risk that both me and my husband want a close relation with our child, but it'll end up with none of us having it! When the boy yelled, I thought it's no good that he jumps from one parent to the other. But, I don't know how to handle this competition between me and my husband.

The CHC nurse is encouraging, but I wonder if she behaves that way because she just wants to support me, you know because she sees how worried I am. I need a lot of confirmation to know that I am doing the right thing, but when I get it I am not sure it expresses her honesty or her wanting to be nice to me.

Sometimes the mother's feeling of inability is linked to a faltering identification with her own mother.

My dad took care of me more than my mother did. It's the same now with me and my husband. I once saw some photos of my own delivery, they just scared me. I spent my entire pregnancy being afraid of this upcoming delivery.

She seems unable to temporarily regress to fully understand the baby's wishes.

I suffer from not being able to breast-feed, not because I want to do it, but because people tell me it's the right thing to do. It could not be the only alternative, could it? Or, maybe, I am not sure . . . . This uncertainty is painful. At my job, I was in charge of things. Now, it's like one big cloud of not knowing what to do with her!

When seeing the mother with her baby, one may get an impression of her as awkward, a bit intellectual and pedagogic, showing little spontaneity, playfulness and sensuality.

The Anxious/Unready Mother

- panics at the slightest baby symptom or at her own somatic health.

She's yelling all the time. I'm worried that she doesn't get enough food. She's got to have the breast. As soon as she's crying I breast-feed her but then I cannot put her back in her own bed because she might die from Sudden Infant Death. I check the internet all the time about news on that stuff. Then I phone my Mom to get support, but she's just as worried as I am.

I talk to the CHC nurse, but I don't get the kind of answer I need! I want them to tell me "do this and don't do that and then everything would be OK."

"I've had this nervousness inside all my life. I put the baby to sleep in his bed. Then I lie awake all night, checking he's breathing. I calm down only if I take him up again and put him on my chest." —Putting him on your chest maybe isn't the safest thing to do concerning his breathing . . . . "But I get so nervous if he's in his own bed!"

It is not always clear if she speaks about her baby or herself. Sometimes, she speaks to her baby in a childish way.

—So how is your baby feeling right now? "Oh, we feel fine, don't we little one." —You say "we feel fine," but you told me you are quite worried yourself. "Yes I am, but he . . . we . . . are quite OK." —So how's he doing? [Only now does the mother take on board that my question was referring to her son, not to herself.]

She seems unready for motherhood in that her own wishes of being taken care of compete with her wishes to take care of her baby.

As soon as I worry about something, I call my Mom. I need her. She supports me. But she's the worrying kind, too. My husband gets annoyed with me for my calling Mom, but I've got to do it . . . at least once a day.

The Mother Conflicting with Her Partner

- is preoccupied with the child's father leaving her during pregnancy. She feels abandoned, bitter, and angry. She capably takes care of her child and finds comfort in this.

We had been longing for a child. It was difficult getting pregnant. Then, when the boy came, my husband felt like "OK, it's all finished." He kind of disappeared, I felt so lonely. I had to take care of everything. He just blamed everything on his job, but that wasn't true. The boy was one week old and he went to the pub [While telling this, the mother gently and affectionately strokes the boy's cheek.]

When asked about the baby or herself, the mother consistently veers into criticizing her husband. Not only is she angry with him but she also feels hopeless and desperate about how to get into a better relation with him. She also may feel outright hatred toward him because he abandoned her with their baby.

INFANT IDEAL TYPES

The Affected Baby

This baby cried or reacted with other negative emotions when the mother spoke of distressing topics. Or, he fretted, arched away, or avoided the mother's gaze when she talked to him. Older babies might have looked unhappy, and crawled away from Mom or turned their back on her, indicating an avoidant attachment pattern. Still older babies seemed disorganized in being overly active and jittery. Some went against the mother's bids or slapped her. Some exhibited a sexualized contact, as when weaned babies anxiously went for their mother's breast.

A 6-month-old girl played with herself during the interview. On the EAS video, she tried to reach a toy animal, but when she failed she did not turn to her depressed mother for help. Maternal sensitivity and structuring were low, and one noted how seldom the girl tried to involve her mother. She seemed self-supporting rather than depressed and did not, due to her young age, qualify for an Axis I diagnosis.

Another example is a 4-month-old boy: His mother makes several intrusive comments during the EAS recording. The boy starts whining, seemingly as a result of her exciting him. She whispers in his ear and rubs his back. He whines more. She responds, "Aha, you wanna take it easy!" He starts crying. She rocks him on her knee and he cries more and more. He avoids her eyes. To ascribe an Axis I diagnosis to him seemed premature since he was so young and his symptoms were closely connected to the mother's handling.

In contrast, a 9-month-old boy qualified for an Axis I diagnosis of Regulation Disorder of Sensory Processing. While the mother tells the interviewer that "life as a mother is not a bed of roses," he starts to climb on her. She comments "Oh dear, aren't you alert," and says he hangs around her skirts most of the time. Meanwhile, he climbs on her breast while looking intently on me. She says "you like that, don't you . . . . Yeah, he started kissing my breasts." She complains that he is hard to calm down and I notice his being overly active. She says he often has nightmares.

The Unaffected Baby

This 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. Some babies played by themselves, but when the mother tried to catch their attention, they responded with a smile or babbled and went on playing. The mother conveyed that the baby was sleeping and eating and was cheerful at home. Some babies were young and had not, it seemed, had the time to develop symptoms. The mother of a 2-month-old girl had an acute Caesarean and lost contact with the girl for 4 hrs. This trauma was unresolved in the mother. She showered the girl with affection, sometimes on an intrusive note. The girl, however, cooed and seemed happy all along.

The mother of a 10-month-old boy contacts the project because of his sleeping difficulties; however, they have only lasted 2 weeks. Her foremost worry is her husband's depression, which makes her feel deserted. She is anxious about the boy, but when she mentions it, he plays happily on the floor. Then he approaches her, greets her, and she picks him up. The EAS video shows how he involves her in play. They seem to like playing with each other. She thus seems to have created a free zone for her son into which her marital worries are not allowed entrance.

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