
A MOTHER–INFANT THERAPY GROUP MODEL FOR POSTPARTUM DEPRESSION

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ABSTRACT: This pilot study examined the feasibility and efficacy of a manualized, 12-week mother–infant therapy group (M-ITG) model for women with moderate to severe depressive symptoms during the postpartum period. Study participants were referred to the psychiatric clinic of a university medical center for assessment and treatment for postpartum depression. Results of pre- and post comparisons utilizing self-report and observational measures showed that women in the M-ITG groups ($n = 18$) reported significantly fewer depressive symptoms and experienced their infants as more reinforcing following 12 weeks of treatment than did the depressed women in the waitlist control group (WLCG) ($n = 14$). Mothers in the M-ITG group also were rated as exhibiting significantly more positive affective involvement and communication in interactions with their infants following treatment than did mothers in the WLCG. The M-ITG model is described, and the implications of utilizing a mother–infant treatment approach for postpartum depression that focuses on the relationships as well as the mother’s depressive symptoms is discussed. The importance of further examining the efficacy of the M-ITG model for women with postpartum depression and their families in a large-scale, randomized clinical trial is underscored.

RESUMEN: Este estudio piloto examinó la posibilidad y eficacia de un modelo manual de 12 semanas de un Grupo de Terapia Madre-Infante (M-ITG) para mujeres con síntomas de depresión, moderados o severos, durante el período posterior al parto. Las participantes en el estudio fueron referidas a la clínica psiquiátrica de un centro médico universitario para evaluación y tratamiento de la depresión posterior al parto. Los resultados comparativos, anteriores y posteriores, utilizando medidas de observación y reportes propios mostraron que las mujeres en los grupos de M-ITG ($N = 18$) reportaron significativamente menos síntomas depresivos y experimentaron que sus infantes estaban más dispuestos a responder o actuar según lo que se deseaba después de 12 semanas de tratamiento, en comparación con lo que reportaron las madres depresivas en el grupo de Control en Lista de Espera (WLCG) ($N = 14$). Las madres en el grupo M-ITG también fueron evaluadas como que exhibían significativamente un involucramiento afectivo más positivo y comunicación en interacciones con sus infantes después del tratamiento que las madres en el grupo WLCG. El modelo M-ITG se describe y se discuten las implicaciones de utilizar un acercamiento de tratamiento madre-infante para la depresión posterior al parto, el cual se enfoca en las relaciones así como también en los síntomas depresivos. Se subraya la importancia de examinar aún más la eficacia del modelo

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M-ITG para mujeres con depresión posterior al parto (PPD) y sus familias en un intento clínico a gran escala y con selección al azar.

RÉSUMÉ: Cette étude pilote a examiné la faisabilité et l'efficacité d'un modèle manualisé de Groupe de Thérapie Mère-Nourrisson de 12 semaines (M-ITG) pour des femmes ayant des symptômes dépressifs de modérés à sévères durant la période postpartum. Les participants à l'étude ont été envoyés en consultation au service psychiatrique d'un centre hospitalier universitaire pour y être évalués et traités pour Dépression Postpartum. Les résultats de comparaison pré/post utilisant un auto-rapport et des mesures d'observation ont montré que les femmes des groupes M-ITG (N = 18) faisaient état de bien moins de symptômes dépressifs et fait l'expérience de leurs nourrissons de manière plus positive après 12 semaines de traitement que ne l'avaient fait les mères déprimées dans le groupe de contrôle de liste d'attente (WLCG) (N = 14). Les mères du groupe M-ITG se sont aussi avérées faire preuve d'engagement affectif et de communication beaucoup plus positifs dans les interactions avec leurs nourrissons après le traitement que ne l'ont fait les mères dans le groupe WLCG. Le modèle M-ITG est décrit et les implications pour l'utilisation d'une approche de traitement mère-nourrisson pour la dépression post-partum qui met l'accent sur les relations ainsi que sur les symptômes dépressifs de la mère sont discutées. L'importance qu'il y a à examiner plus profondément l'efficacité du modèle MITG pour les femmes souffrant de dépression post-partum et leurs familles dans une étude clinique à grande échelle est soulignée.

ZUSAMMENFASSUNG: Diese Pilotstudie untersuchte die Durchführbarkeit und Effektivität eines manualisierten 12-Wochen dauernden Mutter-Säuglings Gruppentherapiemodells (M-ITG) für Frauen mit leichten und starken depressiven Symptomen nach der Geburt. Die Teilnehmerinnen wurden von der psychiatrischen Klinik eines medizinischen Zentrums für Diagnostik und Therapie bei Wochenbettdepressionen zugewiesen. Das Ergebnis von vorher/nachher Vergleiche mithilfe von Selbseinschätzung und Beobachtungsinstrumenten, zeigte das Frauen der M-ITG Gruppe (n = 18) nach 12 Wochen Behandlung signifikant weniger über depressive Symptome berichteten und ihre Säuglinge gestärkter erlebten als die depressiven Mütter der Wartelisten-Kontrollgruppe (WLCG) (N = 14). Mütter der M-ITG Gruppe zeigten außerdem als signifikant mehr positive emotionale Beteiligung und Kommunikation in den Interaktionen mit ihrem Säuglingen nach der Behandlung als die Mütter der WLCG. Das M-ITG Modell wird beschrieben und die Voraussetzung des nutzbringenden Mutter-Säuglings-Behandlungsansatz für Wochenbettdepressionen mit seinem Fokus auf die Beziehungen sowie die mütterlichen depressiven Symptome werden diskutiert. Die Wichtigkeit weiterführender Untersuchungen der Wirksamkeit des MITG-Modells für Frauen mit Wochenbettdepressionen (PPD) und deren Familien in einer großen randomisierten klinischen Studien wird hervorgehoben.

抄録: このパイロット研究は、産褥期中中等度から重度の抑うつ症状をもつ女性のための、マニュアル化された12週間の母親乳児治療グループMother-Infant Therapy Group (M-ITG)モデルの、実現可能性と有効性を検証した。研究参加者は、大学の医療センターの精神科外来に、産褥うつ病の評価と治療のために紹介された。自己報告式の調査と観察調査を利用した、前/後の比較の結果から、M-ITG群の母親(N=18)は、12週間の治療後に、待機リストの対照群Waiting List Control (WLCG)のうつ病の女性(N=14)よりも、抑うつ症状の報告が有意に少なく、乳児をより強化するものとして体験していた。M-ITG群の母親はまた、WLCG群の母親よりも、治療後に、乳児との相互交流において、肯定的な情緒的かわわりとコミュニケーションを表すことが、有意に多いと評価された。M-ITGモデルが記述され、母親の抑うつ症状ばかりでなく関係性にも焦点付けた、産褥鬱病のための母親乳児治療のアプローチを利用することの意義について、考察される。より大きな規模でランダム化した臨床試験において、PPDの女性とその家族のためのMITGモデルの有効性を、さらに検証する重要性が、強調される。

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Major depression in the postpartum period occurs in 10 to 15% of all new mothers (Gaynes et al., 2005; O'Hara, 1997) and has been found to be as high as 23 to 52% in low-income populations (Zlotnick, Johnson, Miller, Pearlstein, & Howard, 2001, Chazen-Cohen et al. (2007)). For this reason, postpartum depression (PPD) represents a significant public health problem.

Major depression in the postpartum period may result in significant impairment in functioning, morbidity, and/or mortality for the mother and her infant as well as disturbances in the quality of the mother–infant relationship (Murray & Cooper, 1997). Depression can compromise mothers' capacities to provide sensitive and responsive care (Campbell & Cohn, 1997; Field, 1997). Depressed mothers tend to be less affectively attuned and less contingently responsive to their infants' needs than are nondepressed mothers (Stanley, Murray, & Stein, 2004). In turn, the distress and unresponsiveness seen frequently among infants of depressed mothers are likely to be maintained by, and perhaps increase, the severity of their mothers' depression (Whiffen & Gotlib, 1989). Thus, these interactions often show a lack of mutual regulation and mismatch of affect (Cohn, Campbell, Matias, & Hopkins, 1990; Lyons-Ruth, Alpern, & Repacholi, 1993; Tronick & Weinberg, 1997).

Numerous studies have documented the adverse effects of maternal depression on the developing infant and young child and postulated mechanisms of risk (Goodman & Gotlib, 2002). Children of mothers with PPD have been found to evidence cognitive delays, insecure attachments, behavior problems, and emotional dysregulation (Campbell & Cohn, 1997; Field, 1997; Murray & Cooper, 2003; Weinberg & Tronick, 1998). The chronicity of the mother's depression in infancy and toddlerhood has been associated with delays in verbal abilities, behavioral problems, and a lack of school-readiness skills; however, maternal sensitivity has been found to moderate the impact of chronicity on child functioning (NICHD Early Child Care Research Network, 1999). While it is not clear whether disturbances in mother–infant interaction are primary or secondary, Cramer (1993) conceptualized PPD as a disruption in the mother–infant relationship. This notion has been supported in a review of studies for treatment for PPD in which continued disturbances in attachment as well as higher levels of internalizing and externalizing symptoms among young children of depressed mothers were documented when the mother–infant relationship was not a focal point of the treatment for PPD (Nylen, Moran, Franklin, & O'Hara, 2006). Therefore, it is warranted to treat the infant and the mother–infant relationship as well as the mother's depressive symptoms. This article describes the results of a study examining the feasibility and efficacy of a family-centered therapeutic approach that focuses on treating the mother and her depressive symptoms in the context of the relationships likely to be most salient to her following the birth of a child (i.e., her relationship with her infant, her partner, and her family of origin).

TRADITIONAL TREATMENT FOR PPD

Traditional treatment approaches for PPD have included medication and individual psychotherapy for the mother, and when severity indicates, psychiatric hospitalization. There is some evidence to suggest that medication and psychotherapy are equally effective in reducing PPD symptomatology (Appelby, Warner, Whitton, & Faragher, 1997), each of these approaches has its limitations. The selective serotonin reuptake inhibitors and traditional tricyclics are effective in treating depression in postpartum women (Wisner, Chambers, & Sit, 2006; Wisner, Parry, & Piontek, 2002); however, psychopharmacologic treatment is still used cautiously in the postpartum period due to the differing levels of secretion in breast milk and a paucity of longitudinal

studies of the physiological or developmental impact of these agents on breastfeeding infants. Although antidepressants are commonly used to treat breastfeeding women with PPD, the Food and Drug Administration has not approved any medications for this purpose. Since over 70% of mothers initially breastfeeding and more than 40% breastfeed for 6 months, a large number of infants may be exposed to psychotropic drugs (CDC, 2007) Breastfeeding Report Card (2007) National Immunization Survey, 2004 Birth Centers for Disease Control and Prevention, US Department of Health and Human Services http://www.cdc.gov/breastfeeding/data/report_card2.htm. The literature shows mixed findings of the relative risk of infant drug exposure through breast milk. Furthermore, most of the knowledge about the short-term effects of this drug exposure on nursing infants is derived from case reports rather than from randomized clinical trials. Additionally, the long-term effects of early drug exposure on the developing brain remains unknown (Abreu & Stuart, 2005). Therefore, psychosocial interventions are important options for mothers with PPD. While interpersonal psychotherapy (IPT) has been found to be effective in treating mothers with PPD (O'Hara, Stuart, Gorman, & Wenzel, 2000; Stuart & O'Hara, 1995), this individual psychotherapy model may ignore the impact of depression in the postpartum period on mother–infant interactions and does not directly treat the mother's relationship with her infant. Therefore, it is important that psychosocial interventions for women with PPD be developed to address the needs of the mother, her infant, and her partner.

RELATIONSHIP-BASED INTERVENTIONS

Several studies of relationship-focused interventions have documented favorable results in their efforts to enhance the quality of mother–infant interactions (Nylon et al., 2006). One effective parenting intervention study (Van den Boom, 1994) that focused on enhancing synchronicity between mother and infant during the first year of infancy found improved security of attachment ratings, infant sociability and exploration, and decreased the rate of crying in intervention-group infants relative to controls. In a randomized clinical trial, the UCLA Family Development Project (Heinicke et al., 1999) examined the effectiveness of an intervention that combined home visiting with a mother–infant group for a sample of mother–infant dyads at risk for disturbances of the parent–child relationship due to economic or social factors. When compared to a nonintervention control group, children in the treatment group were more securely attached to their mothers, and mothers were more responsive to their children's developmental needs; however, contrary to the researchers' expectations, there was no difference between the control and treatment groups in their measures of depression and anxiety. Further examination of maternal factors associated with outcomes in this study indicated that mothers who were highly involved in the home-visit intervention had supportive partners, possessed a sense of self-confidence, demonstrated the capacity to form stable relationships, and had children with secure responses to separation at 12 months (Heinicke et al., 2000). Assessments performed when children were 2 years old showed that in comparison to the control group, mothers in the intervention group continued to be more responsive to their children's developmental needs, supportive of the children's emerging autonomy, and encouraging of their children's involvement in developmental tasks. Mothers in the intervention group also were inclined to use verbal persuasion when setting limits while those in the control group tended to use coercive methods to control their toddlers' behavior (Heinicke, Fineman, Ponce, & Guthrie, 2001).

N.J. Cohen et al. (1999) conducted a randomized comparison of two mother–infant interventions for families with dysregulated infants: an infant-focused “Wait, Watch, and Wonder”

(WWW) approach and mother–infant psychodynamic psychotherapy (PPT). Both interventions effectively decreased infant symptoms, reduced parental stress, and improved the quality of mother–infant interactions after completing about 18 weekly sessions; however, infants in the WWW intervention showed better emotional regulation, secure attachments, and cognitive functioning than did infants in the PPT group. Mothers in the WWW group reported fewer depressive symptoms as well as greater parenting satisfaction and competence than did the mothers receiving PPT. A 6-month follow-up assessment showed continued favorable outcomes for the WWW group regarding maternal depression as well as infant cognitive development and emotional regulation. Interestingly, the PPT mothers and infants also attained similar improvements by their 6-month follow-up assessment (N.J. Cohen, Lojkasek, Muir, Muir, & Parker, 2002).

While these findings are promising, the study samples were drawn from populations for which the infant was the primary focus of the intervention rather than clinically depressed mothers. The UCLA Project was very labor- and time-intensive, with women participating in weekly home visits late in their pregnancies and continuing through their children's first year of life. They also participated in weekly mother–infant group sessions when the infant was 3 to 15 months. Moreover, the study was not successful in decreasing maternal depression, perhaps due to the child-centered nature of the approach. While the WWW approach and PPT described by N.J. Cohen et al. (2002) appeared to be equivalent in improving infant and mother as well as dyadic outcomes, this model was not designed for clinically depressed mothers.

In reports of interventions focused on maternal mood and mother–infant interactions in women with self-reported depressive symptoms, Field (1997) found that multimodal approaches including infant massage, music, and coaching contributed to improvement in maternal mood, interaction quality, infant social interaction, and psychophysiological regulation.

In a large controlled trial (Cooper, Murray, Wilson, & Romaniuk, 2003) comparing three treatment approaches for women with PPD (cognitive-behavioral therapy, psychodynamic therapy, and nondirective counseling), short-term benefits in improvement of maternal mood for all three treatments were found when compared with a primary-care-only control group. Psychodynamic therapy was the only approach that evidenced significant reduction in depressive symptoms assessed by the Structured Clinical Interview for *DSM-III-R* (SCID), and the nondirective counseling approach was associated with increased maternal sensitivity for mothers with high social adversity. Maternal report of improvement in early relationship problems with their infants was found for all three groups; however, no differences were found for security of attachment or sensitivity in mother–infant interactions at 18 months following intervention (Murray et al., 2003).

An earlier report describing a study comparing M-ITG with IPT and a WLC showed that M-ITG and IPT were superior to a WLC in ameliorating symptoms for women experiencing clinical levels of depression (Clark, Tluczek, & Wenzel, 2003). Furthermore, mothers in both active treatments exhibited more positive affect and verbalization with their infants, and enhanced perceptions of their infants' adaptability and reinforcement value.

The current article describes the manualized M-ITG intervention model (Clark, 2000) in greater detail and the initial findings that demonstrated the feasibility and efficacy of this unique relational model for treating women experiencing a wider range of symptoms (i.e., moderate as well as severe levels of depressive symptoms) than those of the earlier report.

M-ITG MODEL FOR PPD

The M-ITG has been designed for women who are experiencing depression in the postpartum period, their infants, and their significant others. Given the social isolation and lack of emotional

support often associated with PPD, a group format may be particularly advantageous in treating mothers with PPD. The relational focus of a group offers mothers opportunities to understand how depression affects them and their relationships with others and to develop better ways of relating and coping more effectively. When mothers' social and emotional needs have been met, they may become more emotionally available to their infants' psychosocial needs. A concurrent developmental therapy group addresses the infant's psychosocial and developmental needs while the mother–infant dyadic therapy component fosters healthy attachment relationships. Recognizing the important role that spouses/fathers can play as a source of emotional support to their partners and in mitigating the impact of the mother's depression on the infant, this intervention contains a component designed to enhance the quality of the partner relationship. The goals of the M-ITG approach are to (a) ameliorate the mother's depressive symptoms; (b) address the mother's intrapsychic conflicts related to her own experiences of being parented; (c) reduce the mother's social isolation; (d) provide an emotionally responsive environment for the infant that supports his or her development; (e) facilitate positive mother–infant interactions; (f) enhance the quality of the mother's relationship with her partner, including the communication and problem-solving capacities of both; and (g) improve the mother's functioning within and outside her family.

Theoretical Foundations

To address the many roles and relationships in a woman's life that are affected by and may contribute to PPD, this treatment model integrates multiple perspectives including psychodynamic, self-psychology, attachment and family systems theories as well as interpersonal, cognitive-behavioral, and group therapeutic approaches.

The mothers' group component of the M-ITG approach makes use of psychodynamic strategies that help mothers explore their early relationship histories and the impact of these on current emotional experiences and interpersonal relationships. Psychodynamic and attachment concepts central to this approach include Winnicott's (1965) "holding environment," Fraiberg, Adelson, and Shapiro's (1975) "ghosts in the nursery," and Bowlby's (1969) formulation of an "internal working model of relationships" which may influence the mother's expectations and interpretations of her infant's and partner's behaviors. As mothers become more aware of their internal working models of relationships, previous roles, and intergenerational patterns, they are able to differentiate from their families of origin and begin to make less conflicted or anxiety-driven choices (Bowen, 1974). The mothers' group model also incorporates empirically derived cognitive behavioral strategies (Beck, 1976; Burns, 1989), modified to address specific symptoms of PPD. Since depression can be maintained and exacerbated by social isolation and interpersonal problems, IPT techniques (Klerman, Weissman, Rounsaville, & Chevron, 1984) have been incorporated into the M-ITG model. The value of an IPT approach in treatment with women experiencing PPD has received empirical support (O'Hara et al., 2000). These techniques help women to explore problematic interpersonal relationships, encourage expression of affect, clarify the nature of relationship issues, analyze communication styles, use the therapeutic relationship to decrease isolation and increase the client's ability to explore their thoughts and feelings, as well as change their behavior. A group-therapy format for mothers with PPD may reduce the social isolation and facilitate mutual emotional support, foster a sense of altruism, and provide interpersonal learning (Yalom, with Leszcz, 2005) and validation among women who share common experiences during the postpartum period. Group therapy also provides

opportunities for the corrective reenactment of family of origin issues that may be particularly important to women struggling with their transition to the role of mother.

The infant developmental therapy and mother–infant dyadic therapy components of the M-ITG model are informed by psychodynamic, self psychology, attachment, social learning, and Soviet cognitive-linguistic theories as well as empirical findings from developmental studies and infant mental health approaches. The quality of mother–infant interactions in the first months of an infant’s life are important to the development of capacities for human attachment (Ainsworth, 1969; Bowlby, 1969; Campbell & Cohn, 1997; Greenspan, 1981). Emde’s (1981) notion of “emotional availability” and Stern’s (1985) description of maternal “affective attunement” provide an understanding of what seems missing in the relationships between many depressed mothers and their infants. Demos (1982) noted that the mother’s positive affect is an “organizer” for her infant whereas her negative or flat affect may disorganize her infant. The concept of parental mirroring of an infant is a complex process that requires observing, understanding, and responsively mirroring a young child’s internal feeling states (Kohut, 1971; Stern, 1985). Mirroring is very difficult for mothers who are depressed. These mothers often hold their infants facing away from them, precluding face-to-face and eye contact as well as reading of their infants’ affective cues. The infant developmental therapy group is designed to provide infants with affectively and physiologically organizing relationships to augment and support infants’ interactions with their mothers, and the mother–infant dyadic component of the M-ITG focuses on increasing mothers’ capacities to recognize how their own facial expressions and emotional availability may impact the affective regulation of their infants.

Group Structure

The M-ITG is structured to address the individual emotional needs of mothers, infants, and family members as well as their needs in mother–infant dyadic and family interactions. This is accomplished by structuring sessions in a two-part format. During the first 1½ hr, mothers meet in a therapy group while their infants meet in a developmental therapy group. These groups are followed by a half-hour session during which mothers and infants reunite for dyadic group therapy. The optimal number for the group process is six to eight families. The group meets weekly for 12 consecutive weeks. Figure 1 illustrates the therapeutic model and process facilitated through this structure.

Mother’s Group. The basic design of the therapeutic group is to help women express and validate their feelings, to examine negative thought patterns, and to develop other ways of being able to experience themselves in the world. It is equally important to examine the connection between the past experiences and current relationships of mothers with PPD. The treatment group focuses on helping mothers attain the following goals: (a) Recognize interpersonal, intrapsychic, and cognitive patterns contributing to current depressive symptoms; (b) develop strategies for reducing depressive symptoms; (c) participate in a group process designed to broaden social support and reduce the social isolation; (d) increase mothers’ awareness of their own needs (e.g., dependency, nurturance, safety), and enhance their ability to address those needs for themselves and their infants; (e) expand perceptions of their infants and of themselves in the parenting role; and (f) increase their capacity for empathetic care of their infants, including the ability to focus on their infant’s immediate physical and social-emotional needs.

Treatment of Postpartum Relational Disturbances

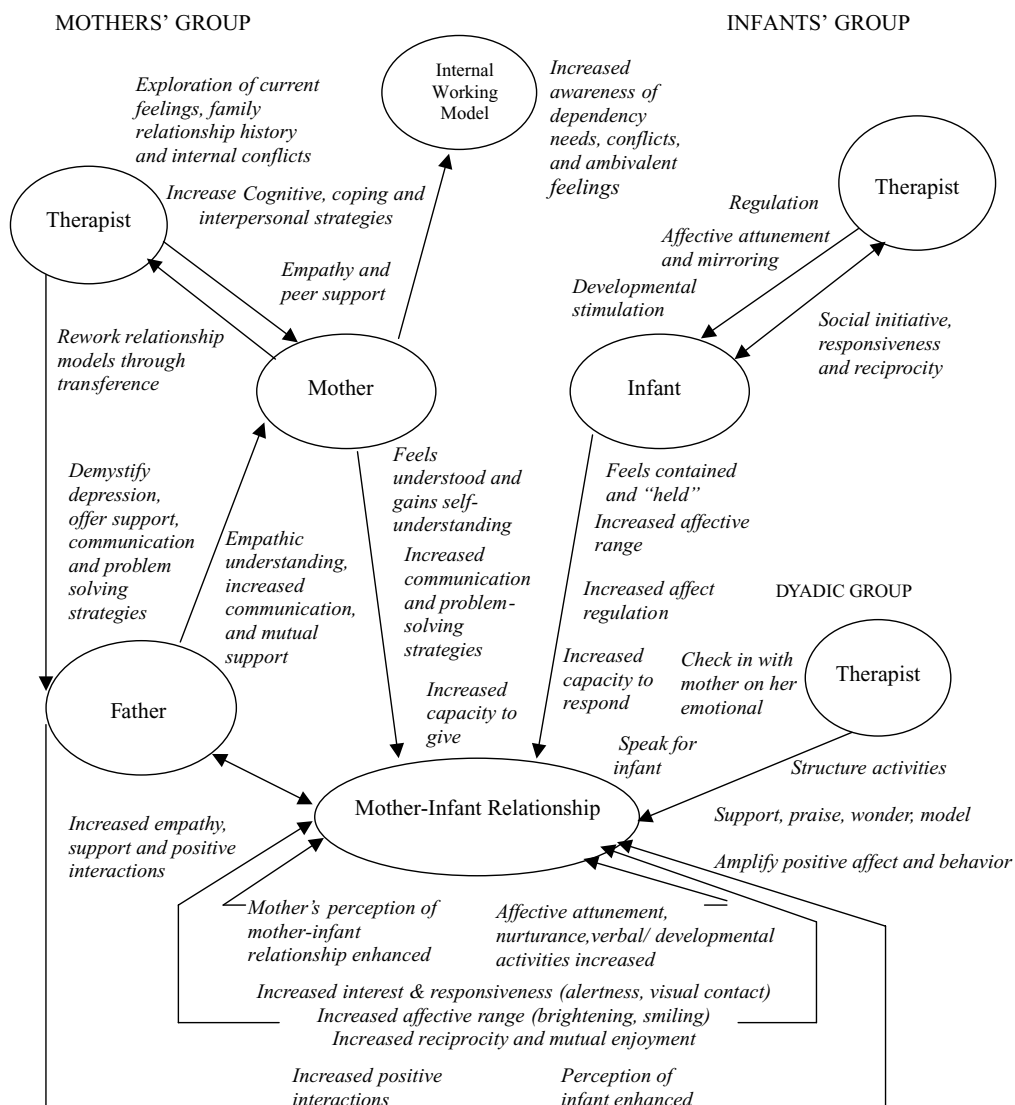


FIGURE 1. Mother–Infant Therapy Group Model. (Adapted from R. Clark et al. (1993).)

Group therapists encourage exploration and expression of feelings through a variety of approaches, including the use of drawing, reflection, and role play. Mothers are given opportunities to express their feelings, describe conflicts, and explore their family relationship histories and their impact on their current relationships with their infants and partners. The group serves to recreate the original family, allowing women to address their own developmental issues and

develop adaptive coping strategies. The group process also allows for the vicarious acquisition of insights and skills as women observe the therapeutic work of their fellow members. In addition, when needed, one therapist can follow the process of the group while the other follows content, allowing for more careful attunement to participants.

Each group session is designed around a core theme such as depression, ambivalence, nurturance, communication, self-esteem and competence, independence/dependence, and safety. The mothers assist in choosing the topics for the last one or two sessions. The manualized approach includes a check-in regarding members' current states and feelings about the previous session, discussion about the topic for that week, planned exercises, written materials, and in some sessions, videotapes, role plays, and home activities. Therapists follow a session guide that outlines issues to be addressed and planned exercises for each session; however, the group therapeutic process follows the mothers' leads. Women are encouraged to reflect upon their own experiences of being parented to gain insights about the template that they bring to being a parent. They also are encouraged to make use of the available social support by exchanging ideas to increase their repertoire of coping strategies. Emphases are placed on helping women identify and meet their own emotional needs to have the emotional resources to be able to respond to their children's needs.

In addition to the themes for group sessions, the individual needs of each mother are addressed based on the mother's goals for herself and her infant. These goals are developed collaboratively with one of the co-therapists from the information attained in the pre-group diagnostic evaluation. As mothers' needs for validation and nurturance are addressed in the group sessions, they become less depressed, and more self-confident. They are better able to support and nurture their relationships with each other, their infants, and their partners. As mothers gain insight about the interpersonal dynamics from their families of origin, they also begin to put their "ghosts in the nursery" to rest, thereby allowing them to be less conflicted and more emotionally available and responsive in interactions with their infants.

Infant Developmental Group. The infant therapy group is designed to provide the infants with sensitive and responsive care that supports the development of affective and physiologic regulation. The infant group focuses on helping infants to (a) increase their differentiation, range, and regulation of affect; (b) show a greater interest in and responsiveness to others; (c) experience feelings of comfort, effectance, and self-worth; and (d) expand and consolidate developmental skills. Infants in the developmental therapy group receive one-to-one consistent interaction with a therapist, who provides affective attunement, responsive caregiving, and developmental stimulation. Each infant has an individual therapist who follows the infant's lead by responding to cues and needs, providing a clear and safe structure for the infant. Depressed mothers often have difficulty recognizing their infants' affective states, gaining or sustaining their infants' attention, and responding sensitively to their infants' cues. Many of their infants have had little opportunity for face-to-face interaction, manipulating objects, and exploring their environments. Therefore, the infants' therapists are encouraged to display a more positive affect, a wider range of affect, and to amplify the infant's attention, interest, and responsiveness to people and objects. This emotionally sensitive care increases the infant's regulatory capacities, affective range, and social initiative and responsiveness. In this way, the infants become more reinforcing to their mothers, making possible more reciprocal, mutually satisfying interactions.

Dyadic Group. In families in which mothers are experiencing psychiatric difficulties related to PPD, the mother–infant dyads may be at risk for experiencing a range of relationship disorders. Mother–infant dyadic strategies address problems within the relationship in a way that supports the mother’s role as primary caregiver, allows her to expand and reflect on the meaning of the child’s behavior and development, and creates an environment whereby she can begin to enjoy her child and take pleasure in her or his accomplishments. The dyadic component of this treatment helps the mother–infant dyad by (a) creating a safe atmosphere for mother to explore alternative ways of interacting with her infant that support her infant’s growth and development, (b) providing opportunities for mutually enjoyable interactions for mother and infant, (c) promoting reciprocity between mother and infant, and (d) enhancing the mother’s feelings of competence in the parenting role.

During dyadic group activities, each mother–infant pair is assigned a dyadic therapist, whose role is multifaceted. A group leader coordinates and conducts these sessions, in which each mother/infant dyad is joined and supported by a dyadic therapist. The leader paces the activities and offers general suggestions for ways that mothers may want to engage their infants in interactive games or to soothe and comfort their infants. The therapists for each dyad then offer support and praise, amplify positive affective behavior, modulate negative responses, reflect feelings, model affective attunement, and provide scaffolding to the mother and her infant. A core strategy of this model involves the therapist’s use of the parallel process. Mothers who feel nurtured and supported through their experiences with the therapists (mothers’ group therapist and dyadic therapists) will be more emotionally available and bring more to their interactions with their infants. Dyadic strategies include the therapist speaking for the infant (Carter, Osofsky, & Hann, 1991; Lieberman, Silverman, & Pawl, 2000), such as “Mommy, it feels so nice when you hold me close,” and engaging mothers in the process of observing and “wondering” aloud about their infants’ cues or behaviors. Activities include interactive games, music and movement activities, baby massage, engagement with toys, and singing songs, with the therapist responding to each member of the dyad, enabling each partner to better respond to the other.

Family Relationships. As women’s dependency needs increase during the last trimester of pregnancy and after childbirth, their relationships with their own mothers may become reenacted in their relationships with their husbands. If a woman was hurt or disappointed with the nurturance she received from her mother, and/or if her husband cannot meet her present needs, she may develop feelings of frustration, disappointment, and even rage. Repairing a strained, distant, and conflicted marital relationship thus becomes another task for the therapeutic work. For this reason, fathers or partners are invited to 2 of the 12 group sessions to help the couple achieve the following goals: (a) demystify depression for partners and family members, (b) identify and respond to the needs of spouses/partners, (c) promote a sense of connectedness through increased partner empathy and communication, and (d) enhance joint problem-solving strategies. During these sessions, the fathers meet together in a separate group and then join the mothers to discuss their mutual feelings, needs, and communication patterns and are supported in role playing using constructive problem-solving approaches. During these sessions, fathers also join mothers and infants in “triadic” activities.

The therapist’s involvement with partners is critical given the powerful role of the social environment in depressive illness. Therapists provide partners with information to clarify misconceptions about depression. They also offer emotional support and strategies for improving

communication. In this way, fathers/partners and family members who may have been overwhelmed with increased responsibility and fearful for the safety of the mothers and children can become more empathetic, understanding, and supportive of their partners and their infants.

AIMS AND RESEARCH QUESTIONS

This pilot study examined the feasibility and effectiveness of a manualized 12-week M-ITG approach for women with moderate to severe depressive symptoms during the postpartum period. Based upon the theory and intervention research related to the impact of maternal depression on the quality of a mother's relationship with her child, we predicted that in comparison with mothers in the waitlist control group, mothers in the M-ITG group would have clinically significant improvement posttreatment in the following domains:

- depressive symptoms as measured by the Beck Depression Inventory (BDI; Beck, Ward, Mendelson, Mock, & Erbaugh, 1961),
- levels of parenting stress as measured by the Parenting Stress Index (PSI; Abidin, 1986),
- quality of mother–infant interaction as measured by the Parent–Child Early Relational Assessment (PCERA; Clark, 1985, 1999; Clark, Paulson, & Conlin, 1993, Clark, Tluczek, & Gallagher, 2004), and
- infant developmental functioning as measured by the Bayley Scales of Infant Development (BSID; Bayley, 1976).

Therapist Training and Supervision

Therapists for the mothers' group included staff psychologists and psychiatry residents or psychology interns. Infant development group therapists included psychologists, psychology interns, and trainees with backgrounds in child development. Therapists received 12 hr of training spread over three meetings. The content of this training included the etiology and symptomatology of PPD, the phenomenology of women with PPD, the effects of PPD on mothers and their children, and the theoretical underpinnings of the relational model. The training also included information regarding child development during the first 2 years of life and specific instruction in individual and dyadic group therapeutic approaches. The shift from being the infant's therapist to working with the dyad received special attention. The therapist also received training in how to offer empathy to and establish trust with the mothers in ways that permit therapeutic involvement.

Sessions were videotaped, and supervisors observed behind a one-way mirror. Therapists received 1½ hr of group supervision immediately after each M-ITG session. During this time, therapists reviewed and discussed what was shared in the mothers' therapy group, the developmental therapy group, and interactions in the dyadic therapy group that had just occurred. During each supervision session, therapists focused on the emotional and relational issues for each mother, infant, and family, using their growing understanding of the family to identify issues and develop strategies for individualized and group-focused therapeutic interventions in future sessions.

TABLE 1. Demographic Characteristics of the Sample

Variable	Treatment (<i>n</i> = 18)	Control (<i>n</i> = 14)
Child Gender		
Female	11	9
Male	7	5
Age of Child (months)		
Range	1.13–24.23	1.00–24.26
<i>M</i>	7.86	11.71
<i>SD</i>	6.75	7.35
Age of Mom (years)		
<i>M</i>	28.06	34.46*
<i>SD</i>	4.40	6.33
Household Income		
<i>M</i>	\$32,506	\$29,538
Maternal Education (years)		
<i>M</i>	14.89	15.71
<i>SD</i>	2.35	1.90
Beck Depression Inventory: Pretest	(<i>n</i> = 14)	(<i>n</i> = 15)
<i>M</i>	22.61	22.00
<i>SD</i>	9.43	7.41

*Significant at .05 level.

METHOD

Participants

Thirty-two women who were referred for treatment of depressive symptoms and their infants participated in this study; 18 families participated in the M-ITG, and 14 families participated in the WLCG. Preliminary *t* tests indicated that the treatment and control groups were comparable with respect to all but one of the sociodemographic variables (e.g., age and sex of child as well as ethnicity, marital status, education, and family income) on which they were matched. Only maternal age was found to be significantly different in the two groups (see Table 1 for sociodemographic characteristics of the sample).

Procedure

Letters and fliers explaining the study were sent to OB/GYN physicians, pediatricians, family practitioners, public health nurses, and women who found descriptions of the group in print media. Most of the participants were referred for treatment of clinical depression by primary care providers and staff in public health and community agencies. The same procedure was used to recruit participants in both research conditions. Potential participants were screened by telephone for depressive symptoms using a questionnaire derived from the *Diagnostic and Statistical Manual of Mental Disorders, fourth edition (DSM-IV)*; American Psychiatric Association, 1994) criteria for Major Depression. Those endorsing three or more depressive symptoms were invited

in for a comprehensive diagnostic evaluation conducted by a licensed psychologist and a trainee in the Parent–Infant and Early Childhood Clinic in the Department of Psychiatry at the University of Wisconsin. Mothers, infants, and fathers participated in the diagnostic evaluation process that included a clinical interview designed to elicit the woman’s subjective experience of depressive symptoms, her current functioning, and family relationships. Two clinicians were present for the interview, and following the evaluation, a consensus diagnosis was attained based on criteria for Major Depression outlined in the *DSM-IV*. Self-report assessments (the BDI and the PSI) were completed by mothers to assist clinicians in identifying the needs of the mother and her infant. The BSID were used to assess the infant’s developmental status. The evaluation also included a videotaped observation of the parent–infant interactions using the PCERA. If the woman met the *DSM-IV* criteria for a Depressive Disorder, the study was explained to her, her questions were answered, and her written consent to participate in the study was obtained.

To assure adequate numbers of women in the M-ITG therapy groups, participants were sequentially assigned to the M-ITG or the WLCG in blocks of 5 to 8. While awaiting participation in the M-ITG treatment, all women were offered consultation regarding their current symptoms, were encouraged to continue with any services they were currently receiving, and/or were referred to community agencies or emergency services as needed. WLCG participants were offered the opportunity to take part in the M-ITG at a later time. Participants in the M-ITG group completed pre- and posttreatment (12 weeks) assessments while those in the WLCG were assessed at the point of entry into the study and 12 weeks later. All participants were reimbursed \$35 for their participation and offered a copy of the videotape of the parent–infant interaction. Participants in the WLCG were accrued based on their sociodemographic characteristics indicating a match with participants of the M-ITG cohort. Matching was based on a child’s age, maternal age, ethnicity, marital status, education, and family income for the M-ITG participants.

Assessment Measures

Maternal Depressive Symptoms. The BDI (Beck et al., 1961) is a self-report inventory designed to measure the severity of depression. Items on the questionnaire are answered by one of four statements (scored 0–3) that reflect increasing severity of depressive symptoms for that item. Item scores are summed to yield an overall score that can range from 0 to 63, with scores of 16 or above characterized as moderately to severely depressed. The internal consistency of the BDI has been shown to range from .58 to .93, with the average item-total correlation of .68. Test-retest reliability ranges from .69 to .90 (Shaw, Valles, & McCabe, 1985).

Maternal Psychological Functioning. The PSI (Abidin, 1986) is a 120-item, parent self-report inventory measuring the number and severity of stressors in the parent–child relationship that have been associated in the literature with dysfunctional parenting. The PSI measures stress related to (a) the child domain (e.g., to what extent the child is acceptable, reinforcing, demanding), (b) the parent domain (e.g., to what extent the parent feels competent, socially isolated, healthy), and (c) other life-circumstances domain (e.g., divorce, changes in income, pregnancy). Items are scored on a 5-point scale from 1 (*strongly agree*) to 5 (*strongly disagree*). A total stress score is calculated by combining the scores from the child and parent domains. High scores indicate high levels of stress in each area. Abidin (1986) found internal consistency reliabilities ranging between .70 and .79.

Child's Functioning. The child's functioning was assessed using the Mental Scale of the BSID (Bayley, 1976). The Mental Scale used in this study includes items assessing sensory-perceptual abilities, the acquisition of object constancy and memory, learning and problem-solving abilities, vocalizations and early language skills, the ability to classify and form generalizations, and the basis of abstract thinking. Raw scores are then converted to a standardized score, the Mental Development Index (MDI). Interrater reliability for the Mental and Motor Scales of the BSID has been found to be .89 and .93, respectively, and test-retest reliability has been reported to be .76 and .75, respectively (Bayley, 1976).

Quality of Mother–Child Interactions. The quality of mother–child interactions was assessed using the PCERA (Clark, 1985, 1999; Clark, Paulson, & Conlin, 1993; Clark et al., 2004). The PCERA was developed to assess the quality of affect and behavior that the mother and child each bring to the interaction. Variables were derived from attachment, psychodynamic, and Soviet cognitive-linguistic theories, clinical observations, and empirical developmental studies. Eight factors quantify the frequency, duration, and intensity of parent–child interactions. Maternal factors include I. Maternal Positive Affective Involvement and Communication, II. Maternal Negative Affect and Behavior, and III. Maternal Intrusiveness, Insensitivity and Inconsistency. Infant factors include IV. Infant Positive Affect, Communicative and Social Skills, V. Infant Quality of Play, Interest, and Attentional Skills, and VI. Infant Dysregulation and Irritability. Dyadic factors are VII. Dyadic Mutuality and Reciprocity and VIII. Dyadic Disorganization and Tension.

During the PCERA, mothers and children were videotaped in a 5-min, free-play situation. The free-play situation allows for an assessment of the mother's capacity to be playful with and enjoy her child, and to facilitate her child's capacity for exploratory and representational play. The dyad's capacity for social interaction, mutuality, and reciprocity also can be observed.

Each videotape segment was coded for 29 maternal, 28 infant, and 8 dyadic variables. PCERA ratings were made on a 5-point Likert scale for 65 variables (e.g., maternal positive and negative affect, sensitivity and responsiveness to child's cues, mirroring, connectedness, enjoyment of one's child, structuring and mediating the environment, infant positive and negative affect, social initiative and responsiveness, gaze aversion, emotional regulation, and dyadic mutual enjoyment, tension, reciprocity, joint attention). The ratings were completed by raters who were trained to reliability. With 40 hr of training, an interrater reliability coefficient of .83 for exact agreement and .98 for agreement within 1 point was obtained. In a community sample, confirmatory factor analysis with a normative sample ($N = 359$) confirmed eight maternal, infant, and dyadic scales with excellent internal consistency ($\alpha s = .85-.94$) and face validity (Clark, 1999). In a study of maternal psychopathology and infant development, an earlier version of the rating scales discriminated between women with psychiatric disorders and their matched well controls (Stott, Musick, Clark, & Cohler, 1983). PCERA ratings of early mother–infant interactions have been found to be correlated with both later quality of mother–child interactions at 12 months and security of attachment behaviors in infants (e.g., Mothander, 1990; Teti, Nakagawa, Das, & Wirth, 1991). Internal consistency of subscales, interrater reliability, and predictive and discriminant validity have been established for the PCERA in a number of studies with normative and high-risk populations (Clark, 1983, 1999; Clark, Hyde, Essex, & Klein, 1997; Clark et al., 2004).

Client Satisfaction. All group participants completed the Client Satisfaction Questionnaire to assist program staff in determining the efficacy of the current treatment modality. This questionnaire gathered information regarding group participants' perceptions of how helpful the group was for themselves, their children, their relationship with their child, and their relationships with other family members. It included specific information regarding which sessions, activities, and approaches they found helpful or not helpful as well as more general questions regarding their experiences.

RESULTS

An analysis of covariance (ANCOVA) was conducted with the main independent variable (M-ITG and WLCG) and scores on the BDI, the PSI, the PCERA, and the BSID as the dependent variables. In each of the analyses, the pretreatment score and mother's age were entered as covariates. Due to the range in infants' ages (1.0–24.2 months), this variable also was entered as a covariate for the analysis of BSID. Mother's age was chosen as a covariate because it was the only demographic variable for which there was a significant difference between the M-ITG and the WLCG. The effect sizes were calculated based on the marginal means. We also used J. Cohen's (1988) description of the magnitude of the effect size (e.g., small, medium, or large). Table 2 lists the estimated marginal means and *SDs*, *F* values, *p* values, and adjusted effect sizes (ES).

BDI

A significant main effect was found for the treatment group on the BDI, $F = 8.20(1, 27)$, $p < .05$, $ES = 1.126$. Mothers in the M-ITG reported fewer depressive symptoms at the 12-week data point than did mothers in the WLCG. In fact, whereas participants in the control group still rated themselves in the clinically depressed range after 12 weeks, on average, those in the treatment group did not.

PSI

A significant main effect was found for treatment group on mother's perception of her child's reinforcement value, $F = 10.98(1, 26)$, $p < .05$, $ES = 1.32$. Mothers in the M-ITG group reported that they found parenting their infants to be more rewarding as compared with mothers in the WLCG at the 12-week data point. Although not statistically significant, there were moderate to large effect sizes for 10 of the remaining 16 variables. These effects sizes also were in the predicted direction.

PCERA

There was a significant main effect for group on PCERA Factor I, $F = 7.65(1, 27)$, $p < .05$, $ES = 1.084$. Mothers in the M-ITG group were rated as exhibiting significantly more positive affective involvement and communication with their infant after treatment than did mothers in the WLCG group at the 12-week data point. Although not statistically significant, there were moderate to large effect sizes for Factors II, VI, and VII. The direction of the effect sizes for Factors VI and VII were as predicted; however, Factor II was in the opposite direction.

TABLE 2. *Estimated Marginal Means and SDs, F Value, p Value, and Adjusted Effect Size*

Variable	Treatment (M/SD)	Control (M/SD)	F (df)	p	Effect Size
Beck Depression Inventory	12.42 (7.08)	20.50 (7.27)	8.197 (1, 27)	0.008*	13.1 ^b
PSI Child Adaptability	24.06 (4.201)	26.85 (4.32)	2.57 (1, 26)	0.12	0.65 ^a
PSI Child Acceptability	11.86 (2.97)	13.11 (3.03)	1.08 (1, 26)	0.31	0.40
PSI Child Demandingness	17.35 (4.58)	20.47 (4.68)	2.85 (1, 26)	0.11	0.67 ^a
PSI Child Mood	10.60 (3.10)	11.60 (3.19)	0.61 (1, 26)	0.44	0.32
PDI Child Distractibility	24.23 (3.80)	26.55 (3.88)	2.28 (1, 26)	0.14	0.60 ^a
PSI Child Reinforces	8.997 (6.80)	18.081 (6.95)	10.977 (1, 26)	0.003*	1.32 ^b
PSI Child Domain Total	98.44 (14.36)	108.04 (14.70)	2.70 (1, 26)	0.11	0.66 ^a
PSI Parent Depression	23.63 (5.64)	27.56 (5.81)	2.80 (1, 26)	0.11	0.69 ^a
PSI Parent Attachment	13.19 (3.03)	12.91 (3.09)	0.06 (1, 26)	0.82	0.09
PSI Parent Restricted Role	20.83 (3.70)	23.60 (3.78)	3.41 (1, 26)	0.08	0.74 ^a
PSI Parent Sense of Competence	31.92 (4.73)	35.57 (4.83)	3.65 (1, 26)	0.07	0.76 ^a
PSI Parent Social Isolation	16.41 (3.61)	19.08 (3.70)	3.25 (1, 26)	0.08	0.71 ^a
PSI Spousal Relationship	21.61 (5.07)	20.74 (5.24)	0.16 (1, 26)	0.69	0.17
PSI Parent Health	15.45 (4.04)	15.64 (4.12)	0.01 (1, 26)	0.98	0.05
PSI Parent Life Stress	2.54 (1.59)	2.45 (1.63)	0.02 (1, 26)	0.90	0.05
PSI Parent Domain Total	143.19 (20.89)	154.90 (21.40)	1.88 (1, 26)	0.18	0.55 ^a
PSI Total Stress	241.81 (31.72)	264.01 (32.52)	2.93 (1, 26)	0.10	0.69 ^a
PCERA Factor I	3.67 (.521)	3.10 (.536)	7.65 (1, 27)	0.01*	1.08 ^b
PCERA Factor II	4.65 (.462)	5.02 (.475)	3.85 (1, 27)	0.06	0.78 ^a
PCERA Factor III	3.92 (0.52)	3.809 (0.54)	0.27 (1, 27)	0.61	0.21
PCERA Factor IV	3.46 (0.64)	3.230 (0.66)	0.78 (1, 27)	0.39	0.35
PCERA Factor V	3.98 (0.69)	4.198 (0.71)	0.64 (1, 27)	0.43	0.32
PCERA Factor VI	4.41 (0.78)	4.83 (0.80)	1.841 (1, 27)	0.19	0.54 ^a
PCERA Factor VII	3.38 (0.59)	3.03 (0.604)	2.22 (1, 27)	0.15	0.59 ^a
PCERA Factor VIII	3.74 (0.64)	3.84 (0.66)	0.16 (1, 27)	0.69	0.16
Bayley MDI	108.05 (14.76)	106.93 (14.99)	0.03 (1, 26)	0.86	0.07

PSI = Parenting Stress Index, PCERA = Parent–Child Early Relational Assessment, MDI = Mental Development Index.

^aMedium effect size.

^bLarge effect size.

**p* < .05.

BSID

There were no significant differences between the M-ITG and the WLCG group on the Mental Development Index at the 12-week data point.

Client Satisfaction Questionnaire

Mothers who participated in the M-ITG reviewed the goals they set for themselves, their infants, and their relationships with their infants and completed an anonymous client-satisfaction questionnaire to assess the extent to which they felt that they had achieved these goals. All mothers reported gains in each area; most mothers indicated a strong sense of improvement and achievement, particularly in their sense of competence in the mothering role. When mothers

were asked which aspects of the adult and dyadic group they found helpful, they reported that sharing feelings about themselves as parents, discussing what they found difficult and enjoyable with their infants, and sharing feelings about their marital and other relationships were the most helpful aspects of the group. All mothers completing the questionnaire indicated that they would recommend the group to a friend.

DISCUSSION

Results of this pilot study of a family-centered relational group therapy for mothers with PPD showed that it was significantly more effective in reducing mothers' depressive symptoms than the standard care received by mothers in the WLCG. Mothers in the M-ITG group reported improved perceptions regarding how reinforcing they found their infants to be. Mothers in the M-ITG also showed more positive affective involvement and communication in their interactions with their infants following treatment in comparison to mothers in the WLCG. Factor I (Maternal Positive Affective Involvement and Communication) had the highest internal consistency and interclass correlation coefficients of all of the PCERA factors. It therefore may have been more sensitive than were the other factors in detecting the impact of higher depressive symptoms on mothers' interactions with their infants as well as change with intervention in this small sample.

Given the small sample size, we chose to examine ESs. The moderate (0.55) to moderately large (0.76) ESs favored the M-ITG group, as predicted, in reducing parenting stress on the PSI Child Domains of Acceptability, Demandingness, Distractability, Acceptability, and Total Child Domain scores as well as the Parent Domains of Depression, Role Restriction, Sense of Competence, Social Isolation, Total Parent Domain, and Total Stress scores. The moderate ESs associated with PCERA Factors VI and VII (0.537 and 0.586, respectively) suggest that the M-ITG may have contributed to the posttreatment reduction of infant dysregulation and irritability as well as improved mutuality and reciprocity of interactions between mothers and their infants. A larger sample size may be required to attain significant findings in these and other PCERA factors. The ES of Factor II (Maternal Negative Affect and Behavior) was not in the direction predicted, suggesting that there may have been some unknown variable influencing these results. As noted by Frankel and Harmon (1996), the effects of depression upon the mother's functioning and her relationship with her child are very complex and may depend on multiple variables. Such variables may include the duration and severity of the depressive episode, comorbid psychiatric conditions such as personality disorders which were not directly addressed in the treatment as well as the infant's age and therefore duration of exposure to lowered maternal responsiveness. Additionally, the infant's temperament (Hopkins, Campbell, & Marcus, 1987) and the amount of stress in the home also may affect the quality of these dyadic interactions (Hammen, 2002).

The involvement of other caregivers such as fathers or daycare providers also may serve as moderating influences on the infant's functioning. Fathers' or other caregivers' involvement may have influenced the lack of significant differences between the M-ITG and the WLCG on the measure of infant development for the current study. Another explanation may be related to the young ages of most of the infants in this study. Developmental delays may become more pronounced as the child is exposed to maternal depression for longer periods of time (NICHD, 1999).

Findings from this study extend the work of O'Hara et al. (2000), who found no differences in mothers' relationships with their infants following a 12-week therapeutic intervention in which

the mothers received interpersonal psychotherapy for depression. O'Hara et al.'s data, however, were based on maternal report while the present study also utilized videotaped observational data of mother–infant interactions rated by coders blind to the treatment-group assignment of the mothers. Thus, the observational method may have been more sensitive in detecting subtle differences in parent–child interactions not identified by maternal report. Our findings showed that this unique relational therapeutic approach that focuses on amelioration of depressive symptoms, the mother's perception of herself in the parenting role and of her infant, the infant's affective range, regulation, and responsivity as well as the quality of affective and behavioral interactions between mother and infant may represent a feasible, integrated intervention addressing an important aspect of PPD—notably, the mother–infant relationship.

Limitations

We recognize several limitations in this study. With a small sample size, this project was underpowered; however, the pilot nature of the study provided sufficient sampling to assess a stable ES for future power projections. Although the sample was ethnically homogenous, there was a range in the socioeconomic status of the women. This was the first study using the M-ITG manualized approach. In an effort to have sufficient numbers of women participating in the M-ITG group, a sequential rather than random assignment to the M-ITG and the WLCG was used. In addition, the mothers who participated in this study had children who ranged in age from 1 to 24 months. We attempted to address this issue by using infants' age as a primary variable for which the two groups were matched. Since this study was a pilot to examine the feasibility and efficacy of the M-ITG model and manual, the sample included all women referred for treatment of depression in the postpartum period as well as women who experienced depressive symptoms beyond the postpartum period whose onset of symptoms began during the postpartum period. A randomized clinical trial with a sample of more than 140 mother–infant dyads is currently under way to evaluate the efficacy of the M-ITG approach in comparison to a standard individual psychotherapy.

Clinical Implications

The developmental and clinical literatures clearly document adverse effects of maternal depression on the quality of mother–infant interactions, infant and early childhood development, and subsequent mental health of the child (Goodman & Gotlib, 2002). Therefore, early identification of maternal depression in the postpartum period is critical. The results of this study suggest that relationally focused treatments may address the mother's individual needs so that she can become more emotionally available to respond appropriately and consistently to the developmental and psychosocial needs of her infant. An integrative therapeutic group approach may increase the woman's awareness of her own experience of being parented and offers her opportunities for corrective experiences related to family-of-origin issues that help her begin to expand her internal working models of relationships. This is crucial in enabling the woman/mother to provide an environment that supports her infant's capacities for regulation and the development of human attachments during this sensitive period (Campbell & Cohen, 1997). Clinicians working with families in which a mother is experiencing PPD must address the importance of treating the relationships, not just the depression (Clark, Keller, Fedderley, & Paulson, 1993; Clark, Paulson, & Conlin, 2003).

Although the M-ITG approach requires multiple clinicians, it can be implemented as part of a service-learning model with experienced clinicians providing supervision. This model offers graduate students, clinical trainees, and professionals from other service settings opportunities to learn about infant development, infant mental health, and parent–infant and family relationships within the context of PPD. The concurrent mother and infant therapy groups offer a wonderful laboratory for learning. While well suited to a university-based medical-training center, the M-ITG model has been utilized in community agencies as well, including community mental health, county child welfare, public health, and agencies serving children exposed to domestic violence.

In summary, the results of this initial study support the feasibility and preliminary efficacy of a mother–infant relational group-therapy approach for the treatment of PPD. In comparison to a WLCG, the M-ITG was effective in ameliorating depressive symptoms in mothers while improving the quality and amount of positive affective involvement in the mother–infant relationship and the infant’s reinforcement value to the mother. A large-scale, randomized clinical trial in which this manualized M-ITG treatment approach for PPD is compared with individual IPT for depression is currently under way. The larger study is enrolling more economically and culturally diverse mothers with major depression and their infants from birth to 7 months of age. This longitudinal treatment study with mothers and their young infants will further elucidate the efficacy of this model as well as provide follow-up data on its long-term impact on mothers and their children over the first 2 years of life.

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