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Interpersonal Psychotherapy With a Parenting Enhancement Adapted for In-Home Delivery in Early Head Start

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Abstract

Formidable barriers prevent low-income mothers from accessing evidence-based treatment for depressive symptoms that compromise their ability to provide sensitive, responsive parenting for their infant or toddler. Interpersonal psychotherapy (IPT), an evidence-based psychotherapy for depression, was tailored for in-home delivery to mothers navigating economic hardship and other intense stressors, and for Latina mothers with limited English language proficiency. Psychiatric-mental health nurses delivered the adapted IPT in randomized clinical trials that were conducted in partnership with Early Head Start (EHS). The authors discuss the results of these studies and the impacts on EHS staff members and programs, and they provide additional implications for current early childhood-focused programs.

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Education about depression that can be used with mothers, fathers, and family members; available in Spanish.

MATERNAL DEPRESSION

L. S. Beeber, & R. C. Cohen (2011) In S. J. Summers & R. C. Cohen, (Eds.), *Understanding Early Childhood Mental Health: A Practical Guide for Professionals*. Baltimore, MD: Brookes Publishing.

FINDING FAMILY STRENGTHS IN THE MIDST OF ADVERSITY: USING RISK AND RESILIENCE MODELS TO PROMOTE MENTAL HEALTH

C. Monahan, L. S. Beeber, & B. Jones-Harden (2011) In S. Summers & R. C. Cohen (Eds.), *Understanding Early Childhood Mental Health: A Practical Guide for Professionals*. Baltimore, MD: Brookes.

INTERVENING WITH PARENTS

L. S. Beeber & R. Canuso, R. (2011) In S. Summers & R. C. Cohen (Eds.), *Understanding Early Childhood Mental Health: A Practical Guide for Professionals*. Baltimore, MD: Brookes Publishing.

A PRACTICAL GUIDE TO REFLECTIVE SUPERVISION

S. S. Heller & L. Gilkerson (Eds.) (2009). *Washington, DC: ZERO TO THREE*.

Strong evidence has shown that depressive symptoms in a low-income mother can intensify the negative effects of economic hardship on the infant or toddler (Campbell et al., 2004; Campbell, Matestic, von Stauffenberg, Mohan, & Kirchner, 2007; Campbell, Morgan-Lopez, Cox, & McLoyd, 2009; Goodman et al., 2011; Knitzer, 2007; Mistry, Vandewater, Huston, & McLoyd, 2002; National Institute of Child Health and Human Development Early Child Care Research Network, 1998, 1999; National Research Council & Institute of Medicine, 2009; Tucker-Drob, Rhemtulla, Harden, Turkheimer, & Fask, 2011). The current question is not whether to intervene to reduce maternal depressive symptoms promptly, but how, given the compelling barriers posed by economic hardship and the stigma of having mental health issues. Home visiting programs that provide family support and child development enrichment for low-income and high-risk families are ideal vehicles for delivering mental health care because their mission is usually not stigmatizing, and the delivery organizations are trusted entities in the communities they serve (Sweet & Appelbaum, 2004).

If mental health care is embedded in a family- and child-focused home visiting program, the mother and child can benefit from mental health treatment that is delivered “under the radar” of family and community members who might respond judgmentally to a mother’s need for treatment (Beeber, Cooper et al., 2007). This article will focus on an in-home adaptation of an evidence-based treatment for maternal depressive symptoms that was developed and tested with Early Head Start (EHS) programs in the southeastern and northeastern U.S. The results of these randomized clinical trials (RCTs) have been reported elsewhere (Beeber, Holditch-Davis, Belyea, Funk, & Canuso, 2004; Beeber et al., 2010; Beeber et al., 2013), but provide a limited description of the complex process of embedding such an intervention in EHS. In this article, we will describe how we enhanced interpersonal psychotherapy with an accompanying parenting enhancement component that focused on depressive symptoms (IPT+PE), how the intervention was adapted to fit variations in EHS programs, and the results of successive RCTs. We conclude with the policy, administrative, and staff supports that were essential and the role of programs like EHS in providing embedded mental health care.

Adaptation of IPT

IPT was developed for research purposes as a time-limited treatment for depression (Klerman & Weissman, 1993) that has subsequently been refined and tested in multiple clinical trials. On the basis of the assumption that depression occurs in social and interpersonal contexts, IPT focuses on the client’s patterns in current interpersonal relationships, identification of problematic relationships, and enactment of changes in the “ways a [client] feels, thinks, and acts in problematic interpersonal relationships” (Klerman & Weissman, 1993, p. 11) that relate directly to the current symptoms of depression. IPT is divided into three phases: (a) a diagnostic evaluation, (b) psychotherapeutic work to enact strategies to change a single interpersonal problem area, and (c) a consolidation of therapeutic gains in the last part of the therapy. Originally, four interpersonal problem areas were used: grief or complicated bereavement, interpersonal role disputes, role transitions, and interpersonal deficits. In keeping with the time-limited structure, the focus for the entire treatment is on the interpersonal problem area deemed to be most closely associated with the

current episode of depression or elevated symptoms. Later iterations of IPT have shortened or changed the interpersonal problem areas (Swartz et al., 2008), shifted the focus to other disorders (Markowitz, Milrod, Bleiberg, & Marshall, 2009), or adapted IPT to specific populations such as low-income women (Grote, Swartz, & Zuckoff, 2008) or women during pregnancy and the postpartum period (O'Hara, 2009). IPT was seen as especially efficacious for perinatal depression because of the potential for disputes arising from disrupted interpersonal relationships and difficulties in transition to the motherhood role (O'Hara, 2009; Stuart, O'Hara, & Gorman, 2003).

A meta-analysis of 38 studies of IPT included 4,356 patients and demonstrated effectiveness with clients demonstrating clinical depression and elevated depressive symptoms that were measured with a standard screening instrument (Cuijpers et al., 2011). More than half of the studies had adapted IPT to fit the needs of different populations, shortened the number of sessions, or changed the format from individual to group therapy. Thirteen countries were represented, as were a variety of populations and specific target groups. Overall, IPT was found to be an effective psychotherapeutic treatment for depression and depressive symptoms with equal efficacy to cognitive behavioral therapy (CBT), an evidence-based, depression-specific therapy, and only slightly less effective than selective serotonin uptake inhibitor antidepressants. Adaptations of the original IPT manual for selected populations appeared to be more effective than adherence to the original manualized version (Cuijpers et al., 2011).

IPT Plus Parenting Enhancement

When We began to develop a maternal depressive symptom intervention with EHS in 1997, the existing studies on in-home intervention for depression were limited and focused exclusively on the immediate postpartum era (Wickberg & Hwang, 1996). Of these studies, only one evidence-supported, depression-specific psychotherapy (CBT) had been used in the home. In the U.K., Appleby, Warner, Whitton, and Faragher (1997) had mixed results from four RCTs of in-home CBT related to a high dropout rate in the group receiving either antidepressant medication only or the highest intensity treatment (CBT plus medication). These results resonated with our interviews with mothers who warned us that they had limited energy for psychotherapy (Swartz et al., 2006) and were reluctant to take antidepressants (Chabrol, Teissedre, Armitage, Danel, & Walburg, 2004). IPT fit the difficulties expressed by EHS mothers and was more acceptable to them than antidepressant therapy. IPT shared the same foundation as the theory guiding relationally based interventions conducted by psychiatric mental health nurses who delivered the IPT (Beeber, 2000; Peplau, 1952). We used advanced practice psychiatric mental health nurses (master's-prepared) because EHS provided home visiting by nurses as part of a broadly focused EHS health promotion plan. A nurse visiting the home would not require the mother to reveal her mental health needs and thus would reduce stigma (Beeber, Cooper, et al., 2007). IPT had been adapted to different populations, but not to in-home delivery (Klerman & Weissman, 1993; Stuart et al., 2003). There was no guidance about how to adapt IPT for low-income populations, mothers with very low social support, single earner-single parent mothers, or rapidly acculturating Latina mothers in EHS programs in the southeastern U.S. Therefore,

we examined each theoretical and strategic component of IPT in the context of our focus groups, interviews, and survey data from EHS mothers and families.

Mothers reported significant severe depressive symptoms that were accompanied by other health problems, interpersonal conflicts, financial problems, and work role strain. Depressive symptoms limited their energy and hampered their use of the EHS parent resources, and the time required to meet day-to-day survival needs and difficulty in getting someone to watch the children were barriers to attending mental health clinics. Mothers emphasized that home visiting which allowed privacy, flexible meeting schedules, and choice of strategies would meet their needs better than traditional mental health services. We also learned that recruitment and screening for depressive symptoms could be done only with the involvement of EHS home visiting staff. In our initial efforts to reach depressed mothers, we sent depression screening forms to mothers by mail. Only 1% of mothers in a single EHS program replied. When we involved EHS home visitors in the screening and recruitment effort, the rate increased dramatically to 70%.

Once we determined that mothers, their partners, and kin and EHS administrative and home visiting staff had to be the primary sources of information for the IPT adaptation, we used an iterative process to integrate rich descriptive data from mothers into the four foci of IPT (Klerman & Weissman, 1993). We developed personalized modules for each of the four foci that combined mothers' descriptive phrases with IPT strategies written at a 4th-grade reading level and a picture of the mother with her child. We devised a visual depressive symptoms assessment tool that organized the mother's symptoms around a pie shape allowing her to see the symptoms and put them outside her as the first step in gaining control over them. Mothers with low literacy were able to use the interactive visual assessment tool to indicate whether symptoms were getting worse or better. These changes in symptoms could then be addressed by the mother and the nurse.

The IPT adaptation needed to include mothers from diverse ethnic and cultural backgrounds; living in rural, urban, or suburban settings; who were native-born and recent arrivals to the U.S.; and who spoke English or Spanish exclusively. Personalizing the modules with the mother's picture with her child was a key tailoring strategy that avoided stereotypical graphics based on race or culture. When we adapted the materials for newly immigrated Spanish-speaking mothers, we needed to translate the idiom-rich language of the original materials into culturally acceptable and conceptually equivalent Spanish language forms. We conducted multiple forward and backward translations of the materials with EHS Latina mothers, their partners, and EHS Latino staff until the English idioms and confusing phrases were replaced with equivalent phrases in Spanish that conveyed the IPT content. Partners and kin were asked about their reaction to the messages as well as the acceptability of the materials.

A large percentage of the English-speaking EHS mothers were living without partners (63%). To adapt IPT to mothers who were single parents, primary earners for their family, or who had no supporting partner or kin, we deemphasized taking on the sick role and stepping back from role obligations (Klerman & Weissman, 1993). Fathers were present in the home as married or unmarried partners (86% of the Latina mothers lived with a male

partner, most often the father of the EHS child), as non-residing biological fathers, and non-biological surrogate fathers to a mother's child. We created a set of modules that involved fathers, partners, or kin that paralleled those for the mother.

Finally, we learned from our preintervention interviews with mothers and EHS program staff that depressive symptoms were a barrier to the full implementation of EHS family support and child development interventions. EHS staff gave rich descriptions of doing home visits with depressed mothers whose energy was so low and distractibility so high that the EHS staff would have to abbreviate or abandon curriculum materials. EHS staff expressed frustration about mothers who missed or cancelled visits or who were unable to use the books, toys, or parenting enhancement materials. One home visitor recalled:

Week after week, I would arrive for my visit with [the mother]...she would sit on the couch in the same soiled sweatpants...she would watch [child] like he was on a TV show but do nothing spontaneously to engage him in play or conversation...on the TV would be the pile of books I had brought on previous visits with materials on how to read to him...the books were obviously untouched because they had dust on them! She was so sad and so low energy. I felt like my heart was breaking and I was frustrated and angry at myself because I could not see how any of the curriculum materials I was using were helping her at all...

We concluded that to fully achieve benefits for the child, we would need to add a parenting enhancement that focused on the way in which the depressive symptoms were preventing the mother from fully engaging with her infant or toddler in a sensitive, responsive, consistent manner. The next section describes this adaption of IPT in more detail.

Development of a Parenting Enhancement

When we began to develop the parenting enhancement to IPT, there was strong observational evidence supporting two patterns by which depressive symptoms impaired mothering: by blunting or slowing the mother's response; or by provoking irritable and intrusive responses (Hammen, 1991). Both interaction styles had been shown to break the contingency of cue-and-response that promotes learning (Hammen, 1991; Rosenblum, Mazet, & Bénony, 1997). We used the rich observational data to develop the parenting enhancement.

Blunting had been observed to shorten and reduce the frequency of interactions with the child (Field, 1995; Karl, 1995; Lyons-Ruth, Connell, Grunebaum, & Botein, 1990; Watson & Ramey, 1972), limit touch (Stepakoff, Beebe, & Jaffe, 2000), and reduce sensitivity (Murray, Fiori-Cowley, Hooper, & Cooper, 1996; Zeanah, Boris, & Larrieu, 1997). In some mothers, blunting was so severe that their actions no longer corresponded to the cues given by the infant or toddler (Bettes, 1988; Breznitz & Sherman, 1987; Field, 1995; Field et al., 1988; Rosenblum et al., 1997; Rutter & Quinton, 1984), impairing mothers' ability to soothe the infant (Zuckerman, Bauchner, Parker, & Cabral, 1990) and regulate the toddler's activity (Goodman, Brogan, Lynch, & Fielding, 1993; Needlman, Stevenson, & Zuckerman, 1991). Mothers talked more slowly and less often with their child (Breznitz & Sherman, 1987; Rosenblum et al., 1997; Zlochower & Cohn, 1996) using flat voice tones (Bettes, 1988;

Kaplan, Bachorowski, & Zarlengo-Strouse, 1999) that appeared correlated with impaired language acquisition and attentiveness in the child (Bettes, 1988; Fernald & Kuhl, 1987; Kuhl, 2000). Depressive symptoms also blunted these mothers' expression of joy and positive affect (Rosenblum et al., 1997), diminished game-playing (Field et al., 1988), and dampened their ability to reward the toddler for good behavior (Breznitz & Sherman, 1987). Overall, these interactions appeared to impair learning, emotional expression, and behavioral regulation.

Irritability had been observed along with maternal interactions that were intrusive with rough touch and angry-sounding talk (Cohn, Matias, Tronick, Connell, & Lyons-Ruth, 1986; Cohn & Tronick, 1989; Field, Healy, Goldstein, & Guthertz, 1990; Weinberg & Tronick, 1998). In some mothers, the irritability was accompanied by negative appraisals of the child's behavior and inconsistently meted out consequences (Gross, Conrad, Fogg, & Wothke, 1994; Jaenicke et al., 1987; Kochanska, Radke-Yarrow, Kuczynski, & Friedman, 1987; Murray et al., 1996; Radke-Yarrow, Belmont, Nottelmann, & Bottomly 1990; Sachs & Hall, 1991). For toddlers, the inconsistency appeared correlated with difficulty in self-regulation (Cicchetti, Rogosch, Toth, & Spagnola, 1997; Davenport, Zahn-Waxler, Adland, & Mayfield, 1984; Field, 1995, 1998a, 1998b).

The two global patterns of blunting and irritable responses became the foundation for the depressive-symptom-focused parenting enhancement that was integrated into the IPT intervention. Two principles were important. First, depressive symptoms needed to be addressed before parenting. Our thinking was that the mother would have more energy to devote to parenting if she had successfully reduced her symptoms. Second, the parenting enhancement needed to be strength-based and build on the positive behaviors and perceptions that the mother had toward her child. This was achieved by reinforcing the mother's strengths as a parent and reminding her that her love for this child was the reason for overcoming the symptoms that stood in her way of being the best parent she could be. Each of the modules we developed reminded the mother to be vigilant and not let her symptoms compromise her watchfulness over the child's safety.

We developed three modules: *Making the Most of the Moment (Sacando lo más que se pueda del momenta)*, which focused on activating the mother whose interactions were blunted or slowed by depressive symptoms; *Dealing With Negative Behaviors of the Child (Lidiando con el comportamiento negativo del niño)*, which targeted irritable responses; and *Know Yourself, Know Your Child (Conociéndose a sí misma y conociendo a su hijo)*, which helped the mother separate her critical perceptions from her child's actual capabilities. All three modules provided practice in responding sensitively and contingently to the child's cues. The nurse interventionist assessed the mother-child interaction, discussed the findings with the team, and suggested the most appropriate module to the mother on the basis of the assessment. Some mothers did not demonstrate any compromised parenting; one of the modules was used regardless as a strength-building part of the intervention.

The parenting enhancement was designed to bridge the gap between the mother and EHS child enrichment resources. When the mother was learning the parenting enhancement strategies, the nurse encouraged her to use a child development activity that had been

provided by EHS (e.g., books) and to reach out to her EHS home visitor for help in parenting. In this way, the parenting enhancement component did not duplicate EHS content but motivated the mother to push past her depressive symptoms and use EHS resources.

Subsequent to the implementation of the parenting enhancement, Forman et al. (2007) verified our observational data with a study that showed that, following reduction of depressive symptoms with IPT, postpartum mothers did not show improvements in their interactions with their infants. This seminal study emphasized the need for additional intervention to help the mother reverse the suboptimal patterns of mothering she had developed while symptomatic. Other studies published after we had implemented our intervention studies showed the value of combining interventions to coach mothers in interactional behavioral change along with depressive symptoms treatment (Cooper, Murray, Wilson, & Romaniuk, 2003; van Doesum, Riksen-Walraven, Hosman, & Hoefnagels, 2008).

Preparation of Nurse Interventionists

Psychiatric mental health advanced practice nurses (“nurses”) were ideal interventionists because they are prepared to do mental health assessment and psychotherapy. However, most of the nurses had practiced in traditional mental health settings and had to learn how to maintain the mother’s privacy when the session was in earshot of other family members, handle children’s reactions to their mother’s tears or anger, adhere to therapeutic boundaries without traditional props, stay safe in high-crime neighborhoods, and manage crises and reportable incidents such as child abuse. In this arena, our EHS staff partners were our teachers and participated as consultants to the research team. As in many of the areas with rapid increases in immigration, the southeastern EHS programs with bilingual staff were serving many newly immigrated Latinos. However, there were few bilingual mental health professionals when we began the intervention work. We developed a nurse-interpreter model of IPT delivery to meet the need. Nurses required training and practice in working with interpreters, and co-author Lewis, a certified interpreter, developed an interpreter training program for EHS staff. The model and program have been fully described elsewhere (Beeber, Lewis, Cooper, Maxwell, & Sandelowski, 2009). Finally, the nurses had to become comfortable working with mothers and families coping with the constraints of economic hardship; this aspect required the most intensive adjustments (Beeber & Canuso, 2005). We addressed the nurses’ need for cultural sensitization, support, and new skill sets through weekly group reflective supervision conducted by telephone and through periodic retraining. We used the detailed field notes and protocol checklists to monitor the fidelity of the IPT.

Adapting the Intervention

EHS programs are designed to reflect the unique qualities of the communities they serve. Consequently, each of the nine participating EHS programs had different features such as the proportion of families receiving home visiting or the inclusion of Spanish-speaking or other non-English language speakers. Our pilot work had shown that EHS staff were essential to the recruitment of mothers into the intervention studies, so initially, we trained all EHS staff to offer screening to mothers in their caseloads. EHS staff needed to learn how

to introduce the study, secure a written informed consent, administer a screening instrument (Center for Epidemiological Studies Depression Scale; Radloff, 1977), protect the mother's data, and communicate with the research team. We quickly discovered that not all EHS staff could effectively execute these functions and that the online training required by our Institutional Review Board (for the protection of research participants) was difficult for many EHS staff. We applied for special Institutional Review Board permission to create an in-person training program that was tailored for EHS by using training examples that were specific to EHS contexts. Likewise, not all bilingual EHS staff could function as interpreters and work with the nurse to deliver the intervention. We remained flexible and, when needed, trained our research team to perform these functions. Ultimately, we designed and tested a curriculum that prepared EHS staff in the functions we needed (see section "Essential Policy and Administrative Supports").

Adaptations for In-home Delivery

In each trial, the adapted IPT reduced depressive symptoms in less than 2 months, and symptom reduction was maintained. This feature is important because infants and toddlers show negative behavioral change with as few as 6 months of exposure to maternal symptoms (Campbell et al., 2004). Over the studies of in-home IPT + PE completed by the authors (see box What Is the Evidence for Impact?), 75% to 100% of mothers completed a full dose of treatment. An analysis of the study that was done with Latina EHS mothers showed that because of higher retention in treatment, in-home IPT+PE was cost-effective as compared to office-based CBT and at least as cost-effective as antidepressant therapy with low-income mothers (Beil, Beeber, Schwartz, & Lewis, 2013). This result was promising, especially because we were able to demonstrate in the most recent study (see box) that the symptom-focused parenting enhancement resulted in significant, positive changes in mothers' interactions with their child compared to mothers who received an equal number of health education visits delivered in the home by a nurse. This result was a key step in reversing the negative cognitive, behavioral, and social outcomes for these infants and toddlers.

In the most recent study, we put IPT+PE to a stronger test by trying it out in more EHS programs and comparing it to EHS services plus home visits by a nurse who provided health education for the mothers. Both IPT+PE and health education comparison condition reduced mothers' depressive symptoms. It is plausible that the therapeutic effect of the outreach efforts by the health education nurses combined with the stress reduction effect of the health education were sufficient to reduce depressive symptoms. However, only the mothers who received IPT+PE showed significantly more positive interactions with their child. This finding was a crucial result that needs to be replicated with other high-risk populations such as these EHS mothers where maternal depressive symptoms carry so much importance to the development of the very young child.

Essential Policy and Administrative Supports

Following authorization of EHS by the U.S. Congress in 1994, key scientific and policy innovations paved the way for our program of research in EHS. These were as follows:

- In 1994, authorizing legislation directed that rigorous and continuous evaluation of EHS occur; the EHS Research and Evaluation Project was launched with the first 17 programs (Chazan-Cohen, Roderick Stark, Mann, & Fitzgerald, 2007);
- In 1996, the Head Start Program Performance Standards were revised to include support for optimal parental mental health (Raikes & Love, 2002);
- In 2000, a key report *From Neurons to Neighborhoods* (National Research Council & Institute of Medicine, 2000) called attention to mental health issues in children and across the lifespan;
- In 2000, the EHS Research and Evaluation Project documented that that depression was prevalent in EHS parents, followed by successive reports in 2001 and 2002;
- In 2000, the Infant Mental Health Forum was held at the urging of the EHS Technical Work Group in which broad-based action and policy items were issued; one of the outcomes was the Department of Health and Human Services (DHHS) infant mental health initiative that included support for research to advance infant mental health in EHS;
- In 2001, the DHHS infant mental health initiative launched the Early Prevention and Intervention Research Consortium of five studies testing approaches to improve infant mental health in EHS (Beeber, Chazan-Cohen, et al., 2007).

What is striking about these events is the systematic way in which programmatic, scientific, and policy changes moved together to emphasize the importance of maternal depressive symptoms in the larger context of infant and toddler mental health. Each initiative brought sweeping changes and created fertile ground for our studies testing IPT in EHS to occur. First, as we built the intervention structure to test IPT, the new Head Start performance standards increased motivation of programs to partner with us around maternal depression intervention. The growing interest in infant mental health prompted DHHS to call for proposals through which our adaptation for Latina mothers was funded. The subsequent formation of the Early Prevention and Intervention Research Consortium brought together five national research teams under the leadership of Rachel Chazan-Cohen. Gathering together five multidisciplinary research teams created a richly supportive meta-team where EHS-specific research issues could be solved and the teams could collaborate on shared issues (Malik et al., 2007).

Leadership at each level of the EHS program was essential to the success of the IPT trials. We always formally introduced our projects to the EHS sponsoring agency leadership after informally approaching the EHS program directors and mental health coordinators. EHS program directors were the liaisons to the EHS parent Policy Council who authorized each research study. The Policy Council looked to the program director for an enthusiastic and confident endorsement which we believed hinged on the respect and transparency with which we presented the project, the flexibility of our implementation procedures, and the clarity with which we responded to concerns. One frequent concern was the requirement of a control condition in which the intervention was withheld from randomly assigned mothers. Program directors and staff were universally negative about this requirement, perceiving that it was unfair to withhold treatment from some mothers and provide it for others. We

responded with three statements: we do not know whether this intervention will help—the control group condition protects half the available pool from investing time and energy in treatment that doesn't work; in a scaled-up, fully implemented version, it would be unlikely that every mother could be offered such a service at one time—the wait-list structure provided watchful monitoring with the promise of the intervention for control group mothers; and we promised every control mother the full intervention. Programs were grateful to have mental health services for their mothers, as well as the training that the staff received as incentives to partner with us. In the final study, mothers received the health education condition in which a nurse visited with the same frequency and duration as the intervention condition; programs were much more comfortable with this model. Scientifically, the model is a stronger test of the intervention than a comparison to regular EHS services without additional visits by a nurse. However, this comparison is difficult to implement in a way that is neutral and does not overlap with elements of the intervention.

One asset that our projects brought to programs was enhancement of the skill of EHS staff in identifying, screening, and referring EHS parents who had significant symptoms of depression. Over time, the training programs we created for staff evolved into a manualized curriculum with training and support materials such as staff “Tip Sheets” for identifying, screening, and referring with parents with depressive symptoms. As we completed the IPT trials, we secured funding to test it with two EHS programs (*Alumhrando el camino/Bright Moments: A Curriculum for Staff Working With EHS Parents With Depressive Symptoms* (Beeber & Canuso, 2009). The curriculum included an enhanced reflective supervision component to support EHS supervisory staff and video simulations in English and Spanish language using actors to demonstrate optimal behaviors for EHS staff. After completing the curriculum, staff demonstrated greater self-efficacy in approaching, screening, and referring parents with moderate to severe depressive symptoms. Depressed parents who received intervention from staff showed improved interactions with their infant or toddler. By the third year of the curriculum project, the directors of the participating EHS programs reported that screening and referral of parents with depressive symptoms had significantly increased. All participating EHS supervisors developed unique reflective supervision systems that fit their EHS programs.

EHS mental health coordinators were key to the success of the IPT trials; in each site they served as the “point person” for the project. EHS program staff looked to the mental health coordinators for ongoing support and guidance in day-to-day questions as they screened mothers and referred them to the projects. Inherent in the trials was the need to monitor mothers' symptoms to be certain that all mothers and children were safe. The research protocols required that we maintain confidentiality in regard to mothers' participation in the projects. This required that the EHS staff, particularly the mental health coordinators, develop sufficient trust in the research team to detect and safely refer mothers in crisis for help. Within the direct service staff, there were “champions”: staff who were the enthusiastic supporters of the project and built staff trust and participation in the studies. These staff had deep insight into the needs of parents and welcomed the opportunity to have tailored services for mothers. Each champion understood the connection between the mother's

depressive symptoms and the child's mental health. We were deeply grateful to each of these devoted EHS staff.

Conclusion

We concluded that the adaptation of IPT+PE for in-home delivery was a successful treatment for depressive symptoms and that the addition of parenting enhancement intervention that was focused on how depressive symptoms compromised parenting did not duplicate EHS services. While treatment of severe levels of symptoms would typically be viewed as something to be addressed by mental health resources outside the EHS program, our experience and data suggest the opposite. The mixed results from the final and largest test of IPT+PE showed that intervention that was nonspecific to depression (the control condition; health education) in the context of a relationship and regular visits from the nurse was as effective as the IPT+PE condition in reducing symptoms. However, the mothering interaction improvements only occurred when IPT was used. This is a critical finding because maternal depressive symptoms affect the cognitive, behavioral, and social-emotional development of infants and toddlers. Our preliminary data on the response to the IPT+PE showed that mothers who had mild to moderate levels of depressive symptoms benefitted the most (Beeber & Schwartz, 2010). These data support our initial hypothesis that mothers who were less severely affected might have the energy and focus to make the transformative changes in their interpersonal sources of depressive symptoms as well as in their parenting. Offering more intensive care to less-affected mothers is consistent with the prevention and early intervention thrust of the Affordable Care Act and EHS. Finally, without the full engagement of EHS in shaping the screening, delivery, and supporting structures and in providing the overriding policy and performance standards that support mental health care for parents and children, this program of in-home depression treatment would not have been successful.

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Biographies

LINDA S. BEEBER, PhD, PMHCNS, BC, FAAN, is the Frances Hill Fox Distinguished Term Professor in the School of Nursing, University of North Carolina at Chapel Hill. Dr. Beeber has focused on reducing maternal depression and its impact on infants and toddlers. She has specialized in high-risk, low-income mothers and has studied how to tailor, reduce stigma, and embed effective depression treatment into maternal infant-toddler enrichment and support programs such as Early Head Start, the Nurse-Family Partnership, and Early Intervention services for infants and toddlers with developmental delays and disabilities.

TODD A. SCHWARTZ, DrPH, is a research associate professor in the Department of Biostatistics, Gillings School of Global Public Health and School of Nursing, University of North Carolina at Chapel Hill. Dr. Schwartz has provided design consultation and statistical analyses for numerous health-related clinical trials and public health initiatives including Dr. Beeber's randomized clinical trials with low-income mothers of infants and toddlers.

DIANE HOLDITCH-DAVIS, PhD, RN, FAAN, is the Marcus Hobbs Distinguished Professor of Nursing and the associate dean for research affairs in the School of Nursing, Duke University. Dr. Holditch-Davis has conducted observational studies of parent-child interactions and infant sleep to determine long-term health and developmental outcomes of infants, particularly those who are premature, adopted, seropositive for HIV, medically fragile, or the children of low-income, depressed mothers. As part of her studies, Dr. Holditch-Davis has refined methods to study mother–infant behavioral interactions in the home and hospital environments, and designed the methods used in the studies described in this article.

REGINA CANUSO, MS, PMHCNS-BC, is coordinator, Hard to Place Children's Unit, New York State Council on Children and Families, Rensselaer, NY. Ms. Canuso is a psychiatric-mental health clinical nurse specialist with years of expertise in providing mental health intervention with mothers, infants, and toddlers. In Early Head Start, she served as a center nurse, a disabilities coordinator and, ultimately, as the mental health coordinator. She was a national Head Start Fellow and currently works with at-risk children. As the field expert, Ms. Canuso contributed to the design and implementation of the interventions delivered to depressed mothers.

VIRGINIA LEWIS works in the School of Nursing, University of North Carolina at Chapel Hill. Ms. Lewis served as the project director on several of Dr. Beeber's studies where, as a bilingual specialist in Latino culture and community partnerships, she co-designed and implemented the nurse–interpreter model used to deliver the intervention to Spanish-speaking mothers. She served as the community liaison for many of the clinical trials described in this article.

YUI MATSUDA, PhD, RN, is a postdoctoral fellow in the School of Nursing, University of North Carolina at Chapel Hill. Dr. Matsuda has studied family planning decision-making in Latino couples and currently works with Dr. Beeber on the influence of maternal mental health issues in health decision-making. As a trilingual specialist in community health issues, she is also studying health services usage and the influence of stress and mental health issues on Latina mothers' use of Early Intervention services.

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What Is the Evidence for Impact?

Three studies provide evidence for the impact of in-home interpersonal psychotherapy and parenting enhancement (IPT + PE) on maternal depressive symptoms and mother-child interactions.

Study 1

- **Sample:** 16 mothers in 2 Early Head Start (EHS) programs, 1 in Southeastern and 1 in Northeastern U.S.
- **Characteristics:** 63% African American; Average age 26.6 years; Education 4–14 years; 88% living without a partner
- **Results:** Mothers receiving IPT + PE compared to usual EHS care had statistically significant reduction in depressive symptoms at Time 2 (8 weeks after 8 face-to-face sessions) and Time 3 (16 weeks after 8 boosters sessions); there was a trend toward a statistically significant improvement in parenting in the intervention group
- **Read about this study:**

Beeber, L. S., Holditch-Davis, D., Belyea, M. J., Funk, S. G., & Canuso, R. (2004). In-home intervention for depressive symptoms with low-income mothers of infants and toddlers in the United States. *Health Care Women International*, 25, 561–580. doi:10.1080/07399330490444830

Beeber, L. S., & Canuso, R. (2005). Strengthening social support for the low-income mother: Five critical questions and a guide for intervention. *Journal of Obstetric, Gynecologic, & Neonatal Nursing*, 34, 769–776. doi:10.1177/0884217505281885

Study 2

- **Sample:** 80 mothers in 3 EHS programs in Southeastern U.S.
- **Characteristics:** 100% newly immigrated Latina; Spanish first language with limited English language proficiency; Average age 26.0 years; Education 2–16 years; 14% living without a partner
- **Results:** Mothers receiving IPT+PE compared to usual EHS care had statistically significant reduction in depressive symptoms at Time 2 (14 weeks after 5 face-to-face sessions and 5 booster sessions) and Time 3 (22 weeks after 5 face-to-face sessions and 5 booster sessions) and Time 4 (26 weeks after 1 month of no treatment); there was no statistical difference in parenting between the two groups
- **Read about this study:**

Beeber, L. S., Holditch-Davis, D., Perreira, K., Schwartz, T. A., Lewis, V., Blanchard, H. Goldman, B. D. (2010). Short-term in-home intervention reduces

depressive symptoms in Early Head Start Latina mothers of infants and toddlers. *Research in Nursing & Health*, 33, 60–76. doi: 10.1002/nur.20363

Beeber, L. S., Lewis, V. S., Cooper, C, Maxwell, L, & Sandelowski, M. (2009). Meeting the “now” need: PMH-APRN-interpreter teams provide in-home mental health intervention for depressed Latina mothers with limited English proficiency. *Journal of American Psychiatric Nurses Association*, 15, 249–259. doi:10.1177/1078390309344742

Beil, H., Beeber, L. S., Schwartz, T. A., & Lewis, G. (2013). Cost-effectiveness of alternative treatments for depression in low-income women. *Journal of Mental Health Policy and Economics*, 16, 55–65. Retrieved from <http://europepmc.org/abstract/MED/23999203>

Study 3

- **Sample:** 226 mothers in 6 EHS programs, 5 in Southeastern and 1 in Northeastern U.S.
- **Characteristics:** 61% African American; Average age 26.0 years; Education 6–19 years; 63% living without a partner
- **Results:** Both IPT + PE and Attention-control (health education visits by a nurse) reduced depressive symptoms at Time 2 (14 weeks after 10 face-to-face sessions) and Time 3 (22 weeks after 4–5 booster sessions) and Time 4 (26 weeks after 1 month of no treatment); IPT+PE mothers had a statistically significant increase in maternal involvement (staying close to the child, making eye contact, expressing positive affect, showing affection and warm touch)
- **Read about this study:**

Beeber, L. S., Schwartz, T. A., Holditch-Davis, D., Canuso, R., Lewis, V., & Hall, H. W. (2013). Parenting enhancement, interpersonal psychotherapy to reduce depression in low-income mothers of infants and toddlers: A randomized trial, *Nursing Research*, 62, 82–90. doi: 10.1097/NNR.0b013e31828324c2

Beeber, L. S., Cooper, C, Van Noy, B. E., Schwartz, T. A., Blanchard, H. C, Canuso, R.,... Emory, S. L (2007). Flying under the radar: Engagement and retention of depressed low-income mothers in a mental health intervention. *ANS Advances in Nursing Science*, 30, 221–234. doi:10.1097/01.ANS.0000286621.77139.f0



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Depressive symptoms were a barrier to the full implementation of EHS family support and child development interventions.



PHOTO: ©ISTOCKPHOTO.COM/DEREJE8

Parenting enhancement built on the positive behaviors and perceptions that the mother had toward her child.



PHOTO: STEPHEN BOBBS

Early Head Start programs are designed to reflect the unique qualities of the communities they serve.