Child Abuse & Neglect 37 (2013) 544–554

Contents lists available at ScienceDirect

Child Abuse & Neglect

Treatment of depressed mothers in home visiting: Impact on psychological distress and social functioning☆

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ARTICLE INFO

Article history:
Received 10 January 2013
Received in revised form 6 March 2013
Accepted 8 March 2013
Available online 25 April 2013

Keywords:
Home visiting
Maternal depression
Cognitive behavioral therapy
Psychological distress
Social functioning

ABSTRACT

Objectives: Depression is prevalent in mothers receiving home visiting. Little is known about the impact of treatment on associated features of maternal depression in this population. The purpose of this study was to examine the impact of a novel, adapted treatment for depressed mothers in home visiting on psychological distress and social functioning.
Methods: In-Home Cognitive Behavioral Therapy (IH-CBT) was developed to treat depressed mothers in home visiting. A randomized clinical trial design was used in which subjects were 93 new mothers in a home visiting program. Mothers with major depressive disorder identified at 3 months postpartum were randomized into IH-CBT and ongoing home visiting ($n = 47$) or standard home visiting (SHV; $n = 46$) in which they received home visitation alone and could obtain treatment in the community. Measures of psychological distress, social support, and social network were measured at pre-treatment, post-treatment, and three-month follow-up. Clinical features of depression and home visiting parameters were examined as potential moderators.
Results: Subjects receiving IH-CBT reported decreased psychological distress at post-treatment (ES = 0.77) and follow-up (ES = 0.73). Examination of types of psychological distress indicated broad improvements at both time points. Those receiving IH-CBT reported increased social support over time relative to those in the SHV condition. Effect sizes were modest at post-treatment (ES = 0.38) but increased at follow-up (ES = 0.65). Improvements were seen in affiliative and belonginess aspects of social support, in contrast to tangible support which was statistically non-significant. Findings were not moderated by clinical features of depression or home visiting parameters. No group differences were found in size of and involvement with social networks.
Conclusions: IH-CBT is effective in reducing psychological distress and improving perceived social support in depressed mothers receiving home visiting. To the extent that mothers are better adjusted and feel socially supported, they are more available to their children and more amenable to home visiting services. IH-CBT is a feasible, readily adopted treatment that is compatible with multiple home visiting models. As a result it is a promising approach to help depressed mothers in home visiting. Additional interventions may be needed to support depressed mothers in building sizable and stable social networks.

☆ Supported by Grant R34MH073867 from the National Institute of Mental Health. The authors acknowledge the participation and support of The Health Foundation of Greater Cincinnati, United Way of Greater Cincinnati, Kentucky H.A.N.D.S., Ohio Help Me Grow, and www.OhioCanDo4Kids.org.
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http://dx.doi.org/10.1016/j.chiabu.2013.03.003

Home visiting is a widely-used prevention strategy for young children and their mothers (Boller & Strong, 2010). Although home visiting models use different formats and strategies, they typically share common elements: (1) enrollment prenatally or early in the child's life, (2) engagement of mothers early in their roles as parents, (3) strengthening of individual and family protective factors and mitigating risk factors to promote normative development, (4) frequent contact between home visitors and families, and (5) extended program duration to ensure presence during emerging developmental periods.

There are at least 500,000 children and their mothers served by home visiting programs in the USA (Astuto & Allen, 2009). Mothers served by home visiting are typically socially isolated, impoverished, and undereducated. As a result, home visiting programs spend considerable time working directly with mothers to address issues such as stress and coping, health, and educational advancement. By strengthening these domains, mothers are more available to their children, better able to meet child needs, and are responsive to the psychoeducational approaches used by home visitors. Maternal depression has a profound and negative impact on these areas. Research shows that up to 61% of mothers in home visiting report clinically elevated levels of depression during the course of service (Ammerman, Putnam, Bosse, Teeters, & Van Ginkel, 2010). Home visitors report being unprepared to help depressed mothers (Tandon, Parillo, Jenkins, & Duggan, 2005), that depressed mothers are more difficult to engage and are less able to benefit from services (Stevens, Ammerman, Putnam, Gannon, & Van Ginkel, 2005), and that depression interferes with implementation of program curricula (Administration on Children Youth and Families, 2002). Research on depression in home visiting has relied exclusively on self-report measures of depressive symptoms. As a result, little is known about the prevalence or impact on home visiting of mothers who meet diagnostic criteria for major depressive disorder (MDD), the more severe and clinical manifestation of depression.

Maternal depression affects other areas of adjustment that are relevant to home visiting. Psychological distress and social functioning are particularly salient. Psychological distress and comorbid symptoms are common associated features of depression (Scott et al., 2000). These include anxiety, preoccupation with physical concerns, and disturbing thoughts. As with depression, psychological distress interferes with maternal functioning, and negatively impacts motivation, learning, and nurturing parenting. Although co-occurring with depression, psychological distress may emerge and be maintained by separate and independent processes. Remission from depression can lead to corresponding improvements in psychological distress, but this is not always the case and significant symptoms may remain after depressed mood has resolved (Rhebergen et al., 2010). Successful strategies for helping depressed mothers in home visiting must demonstrate effectiveness in reducing general psychological distress in addition to depressive symptoms.

Social functioning, including perceived social support and the size and quality of social networks, is critically important for new mothers and is another secondary focus of home visiting (Howard & Brooks-Gunn, 2009). High levels of social support provide mothers with outlets to discuss challenging situations, and receive affirmation from others that contributes to feelings of belongingness and self-efficacy (Lakey & Orehek, 2011). Lack of social support is linked to increased parenting stress, poorer coping, and risk for depression (Balaji et al., 2007; Lakey & Cronin, 2008). Research has demonstrated that perceived support contributes to psychological well-being even in the context of an unstable social network. Yet, strong and large social networks provide resources and tangible support to new mothers and contribute independently to maternal effectiveness and adjustment. Together, perceived social support and stable networks provide a context for healthy maternal and child functioning. Low levels of social support and social isolation are frequently observed in depressed adults (Rhebergen et al., 2010). Although these may improve as depressive symptoms remit, there is considerable evidence that social support and social network are independent constructs that may only partially recover or be unchanged following successful treatment for depression (Denninger et al., 2011). As with psychological distress, successful treatments for depressed mothers in home visiting will also impact social functioning.

Clinical trials suggest that home visiting alone provides little to no benefit in reducing maternal depressive symptoms (Duggan, Fuddy, Burrell et al., 2004), or that symptom reduction is temporary (Landsverk et al., 2002) or occurs only after the end of services (Chazan-Cohen et al., 2007). Home visitors often do not identify depression (Duggan, Fuddy, McFarlane et al., 2004), and depressed mothers rarely obtain mental health treatment even when the need is recognized (Tandon, Parillo, Mercer, Keefer, & Duggan, 2008). In response, Ammerman et al. (2011) systematically adapted cognitive behavioral therapy to address the needs of depressed mothers receiving home visiting. In-Home Cognitive Behavioral Therapy (IH-CBT) is implemented by therapists who provide treatment concurrently with ongoing home visiting. IH-CBT combines the core principles and techniques of CBT (Beck, 2011) with procedures and strategies that promote engagement, make content relevant to the needs of mothers in home visiting, facilitate delivery in the home, and explicitly foster a collaborative relationship between the therapist and home visitor in order to smoothly coordinate services. IH-CBT is an enhancement to standard home visiting that emphasizes the reduction of maternal depressive symptoms and recovery from MDD, thereby allowing home visitors to attend to issues related to parenting, maternal functioning, and child development.

Empirical support for IH-CBT in treating maternal depression was obtained in a clinical trial (Ammerman et al., 2013) comparing mothers who received IH-CBT and concurrent home visiting with those who received home visiting alone. In this study, 93 mothers participating in home visiting were first identified using a screen (Edinburgh Postnatal Depression Scale; Cox, Holden, & Sagovsky, 1987) administered at three months postpartum. This was followed by determination of major depressive disorder (MDD) using the Structured Clinical Interview for DSM-IV Axis I Disorders (SCID; Spitzer, Williams, Gibbon, & First, 1992). Following random assignment to treatment and control groups, mothers were re-assessed at post-treatment and at a three-month follow-up. Results indicated that mothers receiving IH-CBT experienced significant benefits in terms of depression relative to controls. Compared to those receiving home visiting alone, mothers in the IH-CBT condition were less likely to meet diagnostic criteria for MDD at post-treatment (70.7% vs. 30.2%), reported fewer depressive symptoms,