Parent engagement in a Head Start home visiting program predicts sustained growth in children's school readiness

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ABSTRACT

This study examined three components of parent engagement in an enriched Head Start home visiting program: intervention attendance, the working alliance between parents and home visitors, and parents' use of program materials between sessions. The study identified those family and child characteristics that predicted the different components of parent engagement, and the study tested whether those components predicted sustained growth in children's school readiness skills across four years, from preschool through second grade. Ninety-five low-income parents with four year-old children attending Head Start (56% white; 26% black; 20% Latino; 44% girls) were randomly assigned to receive the home visiting program. Assessments included home visitor, parent, and teacher ratings, as well as interviewer observations and direct testing of children; data analyses relied on correlations and hierarchical multiple regression equations. Results showed that baseline family characteristics, such as warm parent–child interactions, and child functioning predicted both working alliance and use of program materials, but only race/ethnicity predicted intervention attendance. The use of program materials was the strongest predictor of growth in children's literacy skills and social adjustment at home during the intervention period itself. In contrast, working alliance emerged as the strongest predictor of growth in children's language arts skills, attention skills, and social adjustment at school through second grade, two years after the end of the home visiting intervention. To maximize intervention effectiveness across school readiness domains over time, home visiting programs need to support multiple components of parent engagement, particularly working alliance and the use of program materials between sessions.

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1. Introduction

Children living in poverty often show low levels of the literacy, attention, and social adjustment skills that contribute to school readiness (Blair, 2002). In part, this reflects the adverse conditions and corresponding lower levels of parent support for learning that often accompany stressful economic circumstances (Ryan, Fauth, & Brooks-Gunn, 2006). Factors such as family instability, less formal education, elevated rates of maternal depression, and social isolation can undermine positive parenting practices and reduce parents' efforts to support children's developing competencies (Abenavoli, Greenberg, & Bierman, 2015). A number of group-based and individual home visiting programs have been developed to support low-income families, promote positive par-

enting practices, and encourage children's learning at home, with the ultimate goal of improving school readiness (see reviews by Brooks-Gunn & Markman, 2005; Welsh, Bierman, & Mathis, 2014). In theory, group-based programs should help foster a sense of community among parents and be more efficient in terms of service delivery, but individual home visiting programs should be more nimble in adapting to and meeting the needs of specific families. Although some parenting programs have produced benefits for children, there is concern that program effects are sometimes weak and often variable (Brooks-Gunn & Markman, 2005; Gomby, 2005). Key challenges include recruiting and retaining parents into parenting programs and promoting the level and type of parent engagement needed to alter children's development (Golas, Horm, & Caruso, 2006; Korfmacher et al., 2008).

The purpose of this study was to examine parent engagement in a home visiting program designed to promote school readiness among children living in poverty. A randomized controlled

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trial demonstrated that the Head Start REDI-P (Research-based Developmentally Informed-Parent) program, compared to the Head Start REDI-Classroom program alone, produced significant benefits for children in areas of literacy skills and social/behavioral adjustment at the end of the intervention period in kindergarten (Bierman, Welsh, Nix, Heinrichs, & Mathis, 2015) and two years later, in second grade (Bierman, Heinrichs, Welsh, Nix, & Gest, 2016). This study investigated natural variation in intervention response among the families randomly assigned to REDI-P. It sought to understand which parents engaged in the home visiting program and how that engagement affected children's school readiness.

1.1. Parenting programs that support school readiness in preschool children

Prior research documents the benefits that accrue to young children when their parents support early learning at home by talking and reading with children, playing games and engaging in educational activities, and interacting in a warm and responsive manner (Fantuzzo, McWayne, Perry, & Childs, 2004). For children in Head Start, this kind of home-based family involvement is linked to multiple dimensions of school readiness, including vocabulary, learning motivation, task persistence, attention, and positive behavior (Fantuzzo et al., 2004).

Parent-focused interventions designed to promote the school readiness of low-income preschool children have focused on improving support for learning at home by: teaching parents to use interactive reading strategies that encourage conversation and highlight print concepts (see reviews by Mol, Bus, DeJong, & Smeets, 2008; Reese, Sparks, & Leyva, 2010); promoting play-based learning activities and strategies, with the goals of enriching parent–child conversation, improving parent–child interaction quality, and increasing cognitive stimulation (see review by Welsh et al., 2014); and teaching positive parent–child interaction and behavior management skills (Brotman et al., 2013; Webster-Stratton, Reid, & Hammond, 2001). Conceptually, all of these parent-focused interventions exert their effects on children primarily as a function of changes in parenting behaviors and attitudes, making parent engagement in intervention a critical lever for change (Korfmacher et al., 2008).

1.2. Components of parent engagement in interventions

Several different components of parent engagement in interventions have been identified, showing differential associations with family characteristics and intervention outcomes.

1.2.1. Intervention attendance

The first challenge is to encourage parents to attend sessions so they receive sufficient exposure to intervention content to bolster positive change. Motivating attendance in parent-focused group programs can be difficult, with attendance rates hovering around 50% of sessions (Dumas, Nissley-Tsiopinis, & Moreland., 2007; Webster-Stratton et al., 2001). In most home visiting programs, attendance rates are also about 50% (Paulsell, 2012).

In general, when parents are younger, have less education, or are depressed, they are less likely to attend parent groups (Baydar, Reid, & Webster-Stratton, 2003; Raikes et al., 2006; Wagner, Spiker, Linn, Gerlach-Downie, & Hernandez, 2003). In one study that offered parent groups and individual home visits, black parents were less likely than white parents to attend groups but more likely to receive home visits (Nix, Pinderhughes, Bierman, Maples, & the Conduct Problems Prevention Research Group (CPPRG), 2005). The presence of child behavior problems may motivate parents to attend sessions in preventive interventions for parents (Nix, Bierman, McMahon, & CPPRG, 2009). Likewise, difficult parent–child interactions and children's academic problems may motivate parents to participate in home visits (Nix et al., 2005).

Several studies have found that higher rates of attendance in parenting programs are associated with more positive child outcomes. For example, when Brotman et al. (2013) offered parent group sessions in kindergarten, they found a strong linear association between intervention attendance and improvement in children's reading skills. Similarly, when Gross et al. (2009) offered a behavior management group program to parents of preschool children, they found that parents who attended at least 50% of sessions experienced the greatest improvements in parenting skills and child behavior. When Raikes et al. (2006) examined dose-response relations in home visiting, they also found that attendance was related to improvements in parenting, albeit to a smaller extent.

1.2.2. Quality of the working alliance

Although less often studied than intervention attendance, the formation of a trusting working alliance between the parent and the group facilitator or home visitor also may make important contributions to intervention outcomes (Brookes, Summers, Thornburg, Ispa, & Lane, 2006; Korfmacher, Green, Spellmann, & Thornburg, 2007; Sierau, Brand, & Jungmann, 2012). The working alliance refers to parents' emotional orientation to the intervention and group facilitator/home visitor, reflecting the degree to which parents believe the intervention objectives and methods align with their own goals and the degree to which they trust and feel respected by the group facilitator/home visitor (see summary in Horvath & Greenberg, 1989). Conceptually, the working alliance is associated with parent interest, motivation to change, and enthusiasm about implementing program strategies (Wagner et al., 2003).

Prior studies suggest that the quality of the working alliance and quality of participation in an intervention is predicted by many of the same family factors that predict intervention attendance. For example, socioeconomic disadvantage, parent education, being a parent of color, and maternal depression have predicted lower levels of working alliance and quality of participation in parent groups, as has the severity of child behavior problems (Baydar et al., 2003; Nix et al., 2009).

Working alliance and the quality of participation also predicts therapeutic change. For example, the quality of participation in a parent group intervention has been linked with improvements in positive discipline and behavior management strategies (Nix et al., 2009). Likewise, the quality of participation in a home visiting program has been linked to parents' support for language and improvements in children's vocabulary (Raikes et al., 2006).

1.2.3. Parent use of program materials at home

Most parent-focused school readiness interventions urge parents to practice targeted skills with their children between sessions. Sometimes parents are given explicit homework assignments or are provided with specific play and learning activities to complete with their children (Anthony, Williams, Zhang, Landry, & Dunkelberger, 2014; Wagner et al., 2003). In virtually all programs, the extent to which parents engage their children in the use of learning materials and the extent to which parents generalize the new strategies across contexts are considered fundamental to sustained change (Reese et al., 2010; Wagner et al., 2003; Whitehurst et al., 1994).

A number of studies have demonstrated positive effects on parent behaviors and child outcomes when parents are provided with home learning materials and taught how to use them (Ford, McDougall, & Evans, 2009; Justice & Ezell, 2000). However, few studies have examined the predictors of parent use of program