Commentary: Toward the Next Generation of Home Visiting Programs—New Developments and Promising Directions

Finello, Terteryan, and Riewerts (this issue) have provided a thorough and concise overview of the current state of home visiting. They note the historic roots of this intervention, and describe the recent incarnation of home visiting that has emerged from a growing evidence base.[1] Indeed, one of the striking things about home visiting is the role that research has played in the design, features, and evaluations of home visiting programs. Typically, social service programs of this type are developed and rapidly scaled up before foundational research is conducted. Such rapid expansion precludes the use of research to test and refine models. Although some would say that even home visiting has expanded too rapidly before more foundational research has been conducted, it is noteworthy that multiple clinical trials of different home visiting models have been performed,[2] and data collection and evaluation have been integral parts of implementation across the United States of America. The Maternal and Infant Early Childhood Home Visiting Program[3] has further ensured that data collection and data-driven decision-making are critical features of home visiting. As a result, the field is in an excellent position to improve over time as data are used to identify challenges to deployment and intervention efficacy. Several areas in need of improvement have emerged in the past decade, and the next generation of home visiting is emerging as they become the focus of programmatic research efforts focused on enhancing effectiveness and optimizing outcomes.

The impetus for this recent work comes from conclusions drawn from meta-analyses[4,5] and systematic reviews of the literature on the efficacy of home visiting programs.[2] They consistently find that home visiting has a number of beneficial impacts, although the effect sizes are modest. For example, Filene et al.[4] conducted a meta-analysis to determine the program characteristics associated with six outcomes (maternal life course, birth outcomes, parenting behavior, child cognitive, child physical health, and child maltreatment). A mean effect size of 0.20 was found, indicating that home visiting is an effective intervention but that there is considerable room for improving outcomes. The field has answered this call to action. There is recognition that, to maximize the impact of home visiting, changes need to be made in program content and delivery. Three areas have been the primary foci of this work: improving program retention, enhancing program content to address issues that are insufficiently handled in standard models, and improving program implementation through increased model fidelity and continuous quality improvement.

Program retention is one of the most significant issues facing home visiting and a likely contributor to differential outcomes. Typically, home visiting programs enroll mothers during pregnancy or shortly after the baby's birth and expect participation for 2–3 years. Yet, all home visiting programs struggle to retain mothers to the end of services. For example, findings from the Nurse–Family Partnership and Parents as Teachers clinical trials revealed that 40–60% of mothers received fewer home visits than was called for in their models.[6] In summarizing retention in Healthy Families America programs, Harding et al.[7] reported that 100 programs in nine states had attrition rates of 50% at 1-year post-enrollment. The consistency of these rates of attrition across models and programs is striking. This is clearly a problem for the field in general and is not specific to any one model. Efforts to retain mothers represent an enormous investment of time and money in providing only partial intervention for high-risk mothers and their children, all of whom are otherwise expected to derive full benefit from home visiting only when they receive all or most of the visits called for in each of the models.

Given the salience of program attrition, it is important to understand the reasons why mothers leave home visiting and the consequences of premature dropout. Quantitative studies identifying predictors of attrition have

Curr Probl Pediatr Adolesc Health Care 2016;46:126-129
1538-5442/$ - see front matter

http://dx.doi.org/10.1016/j.cppeds.2015.12.010

yielded mixed and often contradictory findings. Some studies have found that mothers with more psychosocial needs are more likely to be retained,[8] that race and age predict retention,[9] and that home visitor characteristics are important.[10] No single predictor or group of variables has been identified that reliably relate to premature dropout or program retention. Qualitative studies suggest reasons for why some mothers stay and others leave home visiting programs early. Stevens et al.[11] identified a mismatch between program content and maternal needs, inflexibility of home visiting curricula, and maternal questioning of home visitor knowledge as reasons for leaving home visiting. Holland et al.[12] found subgroups of mothers who either reported low levels of need for home visiting or who were so overwhelmed by interpersonal and clinical challenges that they were unable to consistently participate in the program. They also found that the period following birth is a high-risk time for dropout as initial concerns and worries about pregnancy outcomes diminish among those with healthy births.

A recent study by Holland et al.[13] provides compelling empirical support for the qualitative findings described above that mothers with lowest and highest needs are most likely dropout or be non-adherent to dose requirements. They conducted a latent class analysis of 228 mothers who participated in a clinical trial of the Nurse–Family Partnership. The objective was to characterize adherence to visit schedules over the course of 2.5 years of service. Three groups were identified: low attenders (33%) who had consistently low adherence to visits, increasing attenders (18%) who had low levels of adherence in the first year but increased over time, and high attenders (48%). Both high and low attenders had good outcomes (delayed subsequent pregnancy, nurturing home environment at age 2, and child academic achievement at age 12) relative to controls, in contrast to increasing attenders who had the poorest outcomes. Low attenders had higher education levels and more psychological resources, and the authors note that these "mothers may have had less need for the program" (p. e61). Increasing attenders were poorer, less educated, and lower psychological resources. Although they had the second highest number of home visits, their outcomes were the worst of the three groups.

Taken together, these findings suggest that the next generation of home visiting approaches would benefit from more refined efforts to match program services to family needs rather than focusing on keeping all mothers in the program for the full duration of services. This would be a significant development in the field that promises to increase efficiency, save costs, and deliver more effective and needed services. To this end, Olds et al.[14] tested an intervention in which nurse home visitors were given more flexibility in the delivery and content of home visits, which in turn was found to improve retention relative to typical home visiting in the Nurse–Family Partnership model.

Enhancing home visiting involves adding new components to the service or augmenting home visiting curricula with material, content, or practices that are designed to address unmet needs and improve mother and child outcomes. Approaches that are furthest along in development and testing focus on maternal mental health[15,16] and intimate partner violence.[17] Illustrative are enhancements designed to ameliorate depression in mothers. Between 28% and 61% of mothers have clinically elevated symptoms at some point during the home visiting service.[18] Maternal depression can undermine home visiting outcomes,[19] and depressed mothers in home visiting infrequently are able to access effective services in the community. Home visiting offers a unique opportunity to reach and engage depressed mothers who would otherwise not receive treatment. Engagement is facilitated by leveraging the strong relationship that mothers have with their home visitors. Encouraged to consider treatment by a trusted home visitor, depressed mothers may be more open to receiving treatment.

A novel approach to treating for depressed mothers in home visiting (entitled In-Home Cognitive Behavioral Therapy, or IH-CBT) was tested in a clinical trial.[20,21] IH-CBT leverages ongoing home visiting and engages the home visitor as an explicit partner in bringing about recovery from major depressive disorder (MDD). Mothers receiving IH-CBT and concurrent home visiting were contrasted with those who received home visiting alone. First identified using a screen administered by home visitors, 93 mothers were enrolled and randomized following a diagnosis of MDD using a semi-structured interview. Mothers were assessed at pre-treatment, post-treatment, and at a 3-month follow-up. Results indicated that mothers receiving IH-CBT experienced significant benefits in terms of depression reduction 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, reported fewer depressive symptoms, and obtained lower scores on clinician ratings of depression severity. Mothers receiving IH-CBT also reported increased social support, improved functioning in day-to-day activities, and decreased psychiatric symptoms. Gains were sustained through 3-months follow-up. Mothers received a significantly larger