
**Promoting Father Involvement in Home Visiting Services for Vulnerable Families:
A Pilot Study**

Final Report to the Pew Center on the States

University of Chicago

Neil B. Guterman, Ph.D.

November 12, 2012

Table of Contents

Acknowledgements.....	2
Overview.....	3
Development of the Dads Matter Intervention Enhancement.....	5
Overview of the Dads Matter Intervention.....	6
Figure 1: Dads Matter Service Flowchart.....	9
Study Sites, Staffing, and Supervision.....	10
Study Methods and Design.....	10
Table 1: Study Measures.....	13
Study Recruitment and Enrollment Procedures.....	14
Enrollment of Mothers and Fathers.....	15
Figure 2: Study Enrollment Flowchart and Sample Retention.....	17
Demographics.....	18
Table 2: Demographic Comparison.....	19
Summary of Enrollment and Engagement Trends.....	21
Implementation and Fidelity Monitoring.....	21
Table 3: Parent Services Log (PSL) Implementation and Fidelity Check.....	23
Calculation of Outcome Metrics.....	24
Results.....	24
Table 4a: Mother-Father Relationship – Means, Standard Deviations, and D scores.....	27
Table 4b: Parenting Scales – Scale Summary and D scores.....	28
Table 4c: Maltreatment Risk – Summary Table and D scores.....	29
Discussion.....	30
Appendices.....	32
Appendix A: Parent Service Log.....	33
Appendix B: References.....	34

Acknowledgements

We would like to thank the Pew Center on the States for their generous support of this project as well as the Oscar G. & Elsa S. Mayer Family Foundation for funding the initial phases of research, the problem analysis, design, and implementation of the **Dads Matter** intervention. Additionally we are grateful for the collaborative efforts of the staff and supervisors at our two key project sites in the field, ChildServ of Chicago, and Infant Welfare Society of Evanston, and we particularly wish to thank program supervisors Ms. Hummelhire Ibrahim and Ms. Jessica King for their dedicated partnership on behalf of this project.

Promoting Father Involvement in Home Visiting Services for Vulnerable Families: A Pilot Study

Overview

The recent rapid expansion of early home visiting service programs throughout the U. S. stems in part from a cascading set of findings underscoring the unique and dynamic series of fundamental neurological, psychosocial, and behavioral developmental processes occurring during the “sensitive period” of early childhood, both predictive of later-life success and malleable by early supportive intervention [1]. In addition, a now well-developed evidence base has pointed out the clear potential for home visiting services to deliver discernible preventive benefit to vulnerable families and children. However, a number of early home visitation outcome studies have discerned no effects on child development and family outcomes, and those home visiting interventions demonstrating positive effects have commonly reported small to modest effect sizes [2-4], often “washing out” at later follow-up points [3, 5-10]. In an effort to shed light on the ways home visitation can more fully realize the promise of delivering significant and sustained benefit to families with young children, researchers have focused on problems and predictors of successful implementation of services, including sustaining the engagement of families in services [11-13], comparative advantages of specific home visitation program models over others [14], and points of misfit between the etiology of poor developmental outcomes and home visitation strategies, transcending any single specific program model [3]. On this last concern, researchers to date have, for example, begun testing program adaptations and enhancements within home visiting services to better address maternal depression [15], distorted parental cognitions that shape ineffective parenting behavior [16], and intimate partner violence when it is identified [17-19], among other enhancements [20].

Beyond specific program adaptations and enhancements to better fit the challenges mothers face in their parenting, however, the field of home visitation as a whole has largely overlooked the major role that fathers play in young children’s developmental outcomes, and in configuring home visiting services to address this role. It is rather startling to note, for example, that none of the home visitation models that have been rigorously evaluated have been designed to target fathers as primary service recipients, none were designed to address the array of father-related influences on children’s well-being, and none have yet included fathers as subjects of study, leaving a scant evidence base from which to understand how home visiting programs can best address fathers’ roles in promoting positive child and family outcomes [3].

This is an especially significant oversight: A growing body of evidence has indicated that fathers play a central role in the development of young children, influencing a variety of critical outcomes for later life. Although fathers may more commonly play a secondary role in direct child care, a series of studies have refuted preconceived notions that fathers—particularly those in young, low-income single-mother minority families—are uninvolved in parenting [21-24]. Indeed, a growing evidence base has documented a wide variety of fathering roles, levels of involvement, and an array of important developmental outcomes linked with these roles. In addition to discernible benefits accruing to children from fathers’ economic contributions to the family [25-27], evidence indicates that greater positive father involvement in early childhood, regardless of whether fathers live with mothers, has been linked with improved mother-infant attachment quality [28], greater academic achievement [29], lower aggression, lower delinquency, lower depression, and lower anxiety in children [30]. For children with depressed mothers, or who are identified as at unusual risk for later social and academic problems, positive

father involvement appears to be especially influential [31, 32]. On the flip side, studies have shown that harsh and negative fathering behavior toward young children predicts later-life conduct problems, aggression, and disruptive behavior [33, 34]. Perhaps most palpably, fathers' positive involvement appears to protect very young children from risk of maternal physical child abuse [35] and neglect [36], and fathers themselves are substantially overrepresented as perpetrators of the most severe, even sometimes fatal cases of child abuse and neglect [37, 38]. Further, an array of studies have reported that coercive or violent relationships between mothers and fathers are clearly linked with detrimental outcomes for children, including increased aggression, depression, cognitive delays [39], and heightened risk for child abuse and neglect [40, 41].

Perhaps it is not surprising then that available evidence also indicates that fathers also likely play a significant role in shaping the degree to which early home visiting services benefit families. For example, Eckenrode & colleagues' [17] analyses of the nurse home visitation program data originally studied by Olds & colleagues [42] reported that the positive impact of home visitation services declined as the domestic violence in families increased. Similarly, mothers with lower involvement from significant others like fathers report dropping out of home visitation services sooner [43], and participate in significantly fewer home visits [44]. In short, fathers comprise an important "missing piece" in the puzzle of providing efficacious home visiting services that promote positive development in children and families.

As home visitation services engage families at the point of birth or even prenatally, the strategy provides an opportune window to engage and involve fathers, given that fathers are most likely to be involved with their young children earliest in life [45], with evidence indicating declining involvement in high-risk families as children grow older [46]. Despite the recent federal policy emphasis on promoting responsible fatherhood and healthy marriage, the rapidly expanding field of home visitation services to date, while beginning to recognize the importance of fathers, has no evidence-based strategies or training packages yet, and little scientific base or guidance that can inform home visitors' attempts to promote fathers' positive involvement with their children and families, or even in the services themselves.

Given this gap and the paucity of prior empirical evidence at present that might guide home visitation programs to promote fathers' involvement in an evidence-informed fashion, this study engaged in steps prescribed in the Institute of Medicine's "Prevention Research Cycle" [47] to first design and pilot test an empirically-derived, cost-efficient "promoting father involvement" enhancement designed as a flexible add-on module to augment a variety of major home visiting models presently in operation in the U. S. The aim of the study was thus to yield both new preliminary evidence shedding light on a key gap in home visiting services as well as to yield a new intervention package that holds the potential to significantly strengthen the impact of home visiting services and improve the use of public resources on a wide scale. Designing and pilot testing a new "promoting father involvement" enhancement to home visiting, if found feasible and promising at the pilot phase, could then be subjected to more careful study under larger-scale, randomized, clinical trial conditions to establish its efficacy, for later dissemination.

The father involvement service enhancement targeted in the present study was designed to leverage the longer-term potential to significantly magnify the preventive impact of home visiting by addressing the significant father-related influences on child and family outcomes. Therefore, the present study designed and pilot tested in the field an empirically-derived father involvement service enhancement, dubbed "**Dads Matter**," which can readily be adopted for a

variety of home visiting models. The **Dads Matter** enhancement was designed to engage fathers concurrently with mothers' engagement in services and aims to increase fathers' knowledge, skill, and commitment to the fathering role, and foster co-parenting strategies among mothers and fathers on behalf of the child, in order to optimize support and consistency across biological parents and to reduce counterproductive conflict in caring for the child.

A core element of this intervention study is the degree to which fathers and mothers enroll in the study and engage in the **Dads Matter** service enhancement as well as the degree to which there appear to be preliminary indications of benefit to mothers and fathers in their parenting role. The present report provides our initial data on these questions.

This pilot study thus aimed to assess the feasibility, acceptability, and promise of the **Dads Matter** service enhancement. We set out to address the following questions:

- Is the **Dads Matter** service enhancement module feasible to deliver as an enhancement to the home visiting services as usual, drawing from varied types of home visiting programs?
- Do home visitors show evidence of implementing the **Dads Matter** enhancement with fidelity?
- Do biological fathers and mothers engage in services that include the **Dads Matter** service enhancement, and does this engagement, particularly for biological fathers, appear comparatively favorable, when compared against home visiting as usual?
- Does preliminary pilot study evidence show promise of benefit to families from receiving the **Dads Matter** enhancement, over and above benefits that may accrue to families receiving home visiting services as usual?

The pilot study was designed to provide preliminary information on these questions in order to establish the likelihood of whether such an enhancement is indicated for further, more careful study at a larger scale, under random assignment conditions. In laying the groundwork for a subsequent randomized trial of the enhancement, the pilot study was designed to enable the calculation of effect size metrics (preliminary estimates of the magnitude of impact of the intervention), an essential statistical precursory step that enables conducting a statistical power analysis to plan the target sample size for the randomized trial. The aim of this study was not to draw inferences about the efficacy of the intervention (which will be the aim of a randomized trial), but rather to establish preliminary trends, and effects sizes for a subsequent trial. In addition, through the course of this study, the **Dads Matter** intervention enhancement protocol, including intervention manual, training package, and clinical supervision process, was established to support the implementation of the **Dads Matter** enhancement for future studies and implementation efforts in the field.

Development of the Dads Matter Intervention Enhancement

Given the lack of pre-existing evidence-based strategies for home visiting programs that optimize fathers' positive involvement, we engaged in a series of preliminary research steps proscribed by the Institute of Medicine's "Prevention Research Cycle" and other intervention

research methodological strategies to design, develop, and pilot test the **Dads Matter** intervention. These included:

- 1) Conducting an exhaustive review of the scientific literature identifying fathering influences that promote or hinder child and family outcomes that might be targeted within the context of home visiting services;
- 2) Conducting an exhaustive review of the scientific literature assessing “father involvement” strategies in extant allied service modalities (e. g., Head Start or other center-based programs);
- 3) Conducting an exhaustive search for promising programmatic “father involvement” initiatives operating in the field, and that might inform the design of the pilot intervention (such as the MELD “Young Dads, Young Moms” group-based supplementary curriculum used by some Parents as Teachers home visiting programs);
- 4) Carrying out a process of “blueprinting” a prototype “promoting father involvement” enhancement package that matches the most promising and/or evidence-informed strategies with key fathering influences, and that fit with varying home visiting program models; and
- 5) Conducting a series of focus groups with home visiting staff, home-visited mothers, and biological fathers where mothers were receiving home visiting services, in order to ground the intervention design in the realities of home visiting practices and families that expressed needs for service.

We have also been continuously taking clinical notes as we have implemented the **Dads Matter** intervention in the pilot phase; we are also taking into account the pilot data from this study, and we expect to continue to refine and strengthen the intervention package as it presently stands. Prior to initiating a randomized trial of the intervention package, we also intend to add one additional step of seeking experts’ review of the manual for their views of its strengths, limitations, and any gaps we may have not fully considered.

Overview of the Dads Matter Intervention

The **Dads Matter** enhancement was designed to fit across home visiting models and home visitor types, is short-term, and fits organically with parenting guidance already provided in many home visiting programs. The **Dads Matter** manual (the latest working draft of which is enclosed as Appendix C) is organized as a series of modules that include basic instructions, strategies, and handouts to involve fathers in services and to support fathers in their positive involvement with their babies, and to support the mother and father in their co-parenting teamwork, in the context of their wider family and social networks. The modules were developed and adapted from prior modules that draw from evidence-informed parenting programs, family systems theory, couples support strategies, and prior social support interventions for families with young children. The father involvement modules are designed to be maximally flexible and adaptable for delivery across a variety of potential father roles, ethnicities, and mother-father dyadic relationships, ranging from responding to the needs of married, living together couples where the father already evinces supportive behavior toward the mother and child, to unmarried couples where the father may only be peripherally involved, and/or potentially undermining of the mother and her efforts at parenting the child. To be

eligible for the **Dads Matter** enhancement, however, the father must be the putative biological father of the child and at least geographically accessible to the home visitor and the child.

The **Dads Matter** enhancement is organized into several intervention “modules” that aim to address generic skills, competencies, and attitudes across both fathers and mothers; that can be flexibly adopted as the worker assesses each family’s individual needs; and that transcend individual family differences in ways that promote improved positive father involvement with the child, mother, and home visitation services. The **Dads Matter** modules are developed with consideration to varying home visitor backgrounds and training. Although drawing from well-developed clinical theory, evidence, and techniques, the **Dads Matter** modules were designed to be feasibly implemented by those without advanced clinical training, particularly given that many home visitation program models utilize trained paraprofessionals without advanced clinical training. The primary components of the **Dads Matter** enhancement are designed to be delivered within approximately four to seven sessions during the initial phases of home visiting services and can be flexibly delivered either conjointly (with the mother and father together), or delivered individually with mother and father separately, depending upon the assessed nature of the father’s role in the family, his availability, and the quality of the relationship with the mother. Below is a schematic view of the five constituent intervention modules that comprise the **Dads Matter** enhancement. Given the availability of already well-established parenting curricula focusing on specific parenting skill development, the **Dads Matter** enhancement does not “reinvent” or reiterate any content on parenting skill training, but rather *complements* this content and permits adjusting parenting skill content per se through supervision and training for father inclusion. For example, the **Dads Matter** modules do not reiterate parent-child attachment training for fathers, but rather encourage the home visitor to promote the father-infant attachment behaviors in ways that emphasize verbal and non-verbal responsiveness and that are male appropriate (e. g., such as emphasizing eye contact and soothing of the infant, rather than placing emphasis on attachment behaviors while breast feeding). Derived from our problem analysis and intervention design phase, the overarching aims for home visitors implementing the **Dads Matter** enhancement are:

- To assess a father’s role in the family and the ways this can be improved, managed, or enhanced;
- To reach out in order to successfully engage fathers in services when appropriate, and to support a productive co-parenting role with the mother;
- To build an effective co-parenting team between the mother and the father in parenting the child(ren); and
- To provide direct support to the father specifically with respect to managing the stresses and the challenges of being a father.

To accomplish this, the **Dads Matter** intervention manual (see Appendix C) is specifically organized according to the following intervention modules:

Section 1: Engaging Dad Modules

Engaging Dad Part 1 – Preparing for the First Meeting

Engaging Dad Part 2 – The First Meeting and Future Meetings

Section 2: Topic Modules

Coparenting Part I – Parenting Roles and Expectations

Coparenting Part II – Communication

Coparenting Part III – Goal Setting

Coparenting Part IV – Problem-Solving Skills

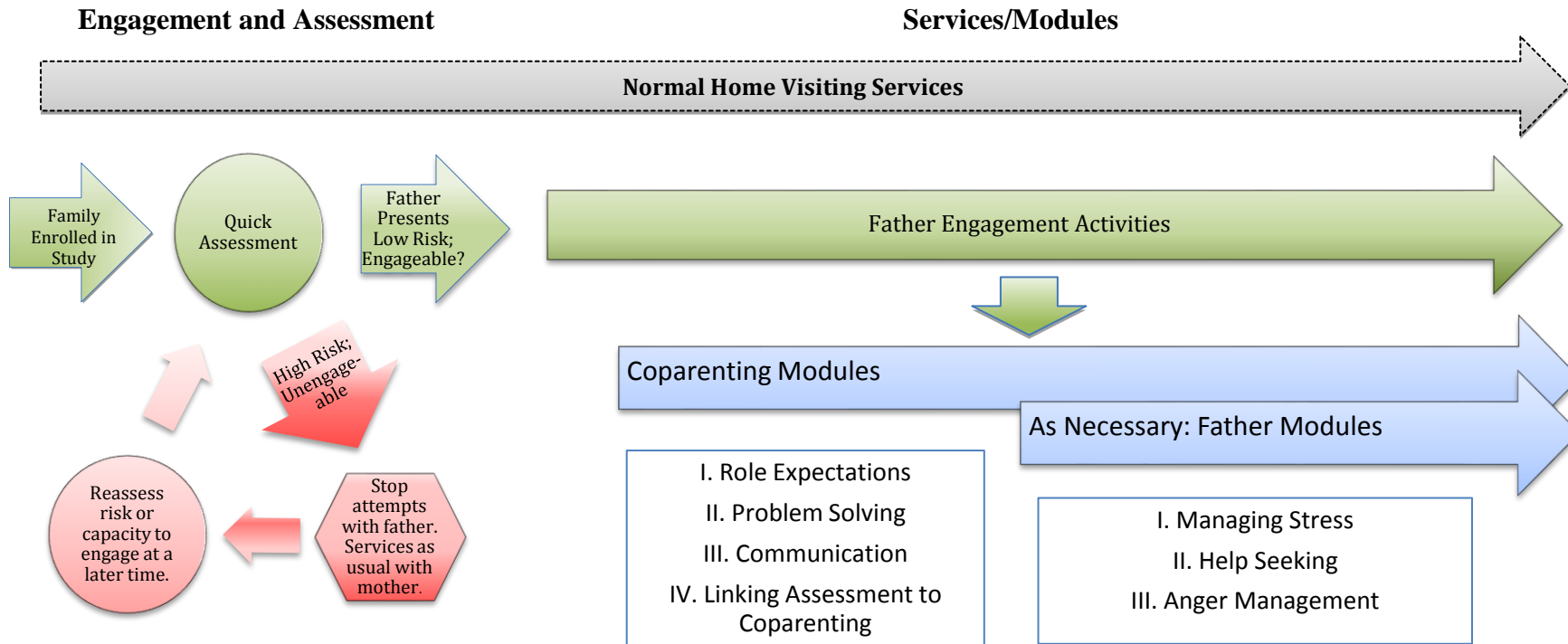
Fathers: Identifying and Managing Stress

Fathers: Help Seeking

Fathers: Anger Management

The schematic that follows visually depicts the process of implementation of the **Dads Matter** enhancement for home visitors in ways that “organically fit” with their standard home visiting services. Activities beneath the “Normal Home Visiting Services” label (gray arrow) represent the possible flow of the **Dads Matter** intervention activities as well as the activities described for home visiting staff in the **Dads Matter** manual. The green arrows represent a process that allows home visitors to assess risk factors prior to moving into engagement and other intervention modules. Red arrows represent a more intensive process for fathers identified as high risk due to a number of risk factors. Finally, blue arrows represent tailored modules in the intervention manual that workers may opt to implement, depending upon the home visitor’s evolving assessment of family need. Please see the **Dads Matter** intervention manual (Appendix C) for details about the intervention package.

Figure 1: DADS MATTER SERVICE FLOWCHART



Study Sites, Staffing, and Supervision

The project initially engaged three study locations: ChildServ of Chicago, Infant Welfare Society of Evanston (IWSE), and Childcare Network of Evanston (CNE). During the period of this pilot, CNE did not receive any appropriate referrals over an extended period for this project, so it was mutually decided to cease continued inclusion of CNE as a field site for this study.

The two remaining study partners utilize three distinct home visiting models: ChildServ and its several home visiting program sites comprise a Parents as Teachers (PAT) program model as well as a home-based Early Head Start model. Infant Welfare Society of Evanston utilizes the Touchpoints parenting curriculum developed by T. Berry Brazelton [48]. Each program in this pilot employs intensively trained and supervised paraprofessional home visitors who provide parent-child interactional guidance in the home, as well as case management support to link families with formalized resources and services in the local community, including public assistance, mental health, or substance abuse services as needed.

At the start of the comparison group phase, workers were oriented to the study and its purposes but informed minimally about the nature of the intervention components. They were asked to simply continue with their services as usual and that select families on their caseloads would be completing baseline and four-month follow-up interviews. No changes with respect to service, including supervisory arrangements, were made during the comparison group phase.

Once the **Dads Matter** phase began (detailed further below), all home visitors and supervisory staff across study sites and programs then took part in a half-day training to overview the **Dads Matter** intervention rationale, protocol, and intervention manual. As new home visitors joined the staff at program sites, they received the identical training overview, only through individually arranged meetings. After all home visitors were trained, and when they received new cases for service that were eligible and consented to study involvement, the research team arranged regular clinical supervisory sessions to pre-brief home visitors on the **Dads Matter** intervention strategies, to adapt the intervention to the specifics of each case (e. g., based on the nature and qualities of the mother-father relationship), and to problem-solve with the home visitors when specific concerns arose in relation to implementing the intervention protocol. These clinical supervisory sessions were held in the interim days between home visits to permit home visitors to receive appropriate session-by-session guidance and feedback to support their efforts at implementing the additional **Dads Matter** activities during their visits. After four months, the data collector completed a four-month follow-up interview, and the clinical supervision specifically designed for the **Dads Matter** intervention ceased.

Study Methods and Design

This pilot study employed a time-lagged comparison group design which balanced out a need to maximize empirical lessons for feasibility and rigor during a pilot test phase, while permitting the establishment of preliminary trends in outcomes within a short time period. This design allowed for an efficient, yet empirically grounded, pilot test and avoided any “leakage” across study conditions (given that the **Dads Matter** enhancement was introduced to the programs and home visitors after the comparison group condition pretests and post-tests were completed), and addressed the ethical problem of withholding services deemed potentially useful to families. We thus enrolled two groups of families sequentially into the pilot study: An initial group of

families received standard home visiting services as a comparison group, and then a subsequent group of families received standard home visiting services plus the **Dads Matter** intervention enhancement, which included intensive home visitor training and ongoing clinical supervision, provided by the research team, on implementing the intervention consistent with the protocol detailed in the intervention manual.

Monitoring the fidelity of the intervention's implementation was achieved through workers' visit-by-visit completion of a "parent services log" (PSL) developed for this study (Appendix A), which asked workers to self-monitor the activities they engaged in during the immediately previous contact with the family. The PSL checklist of activities asked workers to track the activities specifically spelled out in the **Dads Matter** intervention manual (Appendix C).

As the PSL instrument was not yet approved by the University's Institutional Review Board at the start of enrollment of families into the comparison group condition, we solicited from workers a random sample of PSLs, once approved by the IRB, to be completed from home visits conducted on home visitors caseload over a one-month period, shortly prior to the initiation of the **Dads Matter** intervention condition. We received a total of 24 PSLs in the comparison phase, and a total of 47 PSLs in the intervention or **Dads Matter** phase of the study from which to render comparisons, and to check for implementation of the **Dads Matter** protocol. It is important to point out, however, that those cases for which the PSLs in the comparison group condition were completed were not the same as those enrolled in the pilot trial for baseline and follow-up data collection. Some of these families were not in the initial phases of service as were all of those families in the **Dads Matter** condition. Thus, we expected that engagement activities tracked in the comparison group would be lower than in the intervention condition, across both mothers and fathers. Nonetheless, the PSL data provided us a key window into home visitors' implementation of the key components and activities of the **Dads Matter** enhancement.

Starting in October 2010 the study team recruited and enrolled families in the two study conditions sequentially. For the first 11 months, the study team enrolled and collected baseline and four-month follow-up data on families receiving standard home visiting services as the comparison group. After this period, home visiting staff at the partner study sites were trained to implement the **Dads Matter** service enhancement during a half-day training. Immediately following this training, the study team began to enroll a subsequent second set of families to receive home visiting services along with the **Dads Matter** service enhancement as the study intervention group.

The comparison group and treatment group families enrolled in the study completed identical baseline and follow-up data collection instruments. Baseline data collection occurred just prior to the initiation of services, and post-test data collection occurred four months later, a length of time after which the core **Dads Matter** enhancement service activities were completed. Data collection included self-report measures of parenting quality, quality of the biological mother-biological father relationship, and child maltreatment risk collected through a structured interview. Biological mothers and fathers each completed the structured interviews separately.

Data collectors carried out face-to-face paper and pencil research interviews with parents in the home when possible, and only after IRB-approved informed consent procedures were completed. Parents who were under the age of 18 were also required to receive their own parent's consent for participation, and to provide their assent to participate in the study. Data collection

interviews averaged one hour in length for each parent, and parents were given \$20 each for completing the baseline interview and another \$20 for completion of the four-month follow-up.

When possible, study outcome variables were assessed using well-established self-report measures with strong psychometric properties. However, one measure, the Father Attitudes scale, was developed by the study team for the present study due to a lack of a well-established measure for father efficacy. The tables below summarize all study variables and the measures employed to assess each.

Table 1: Study Measures

Variable	Measure
Mother-Father Relationship	
Partner Confidence in Own Parenting, Appraisal of Partner's Parenting, and Shared Philosophy and Perceptions of Parenting	<ul style="list-style-type: none"> • Parenting Alliance Inventory (PAI): Abidin & Brunner, 1991
Relationship Quality: Abuse and Support	<ul style="list-style-type: none"> • Relationship Quality Scale (RQ): Adapted from [49, 50] and [51].
Social Support	
Perceived Support from Partner	<ul style="list-style-type: none"> • Multidimensional Scale of Perceived Social Support (MSPSS): Developed for the Fragile Family and Child Well-being Study
Parenting	
Father Involvement with Child	<ul style="list-style-type: none"> • Fragile Families Father Involvement Scale (Guterman, et al., 2009)
Mother/Father Involvement with Infant: Perceptions of Partner Involvement and Perceptions of Own Involvement	<ul style="list-style-type: none"> • Family Routines Inventory, Adult Literacy Study, and MacArthur Communicative Development Inventory (MFI)
Parenting Stress: Parental Distress, Parent-Child Dysfunctional Interaction, and Difficult Child	<ul style="list-style-type: none"> • Parenting Stress Index-Short Form (PSI-SF): Abidin, 1995
Father's Perceptions of His Role, Child's Health and Education, and Mother's Support	<ul style="list-style-type: none"> • Father Attitudes Scale (FA): Developed for Dads Matter Study
Parent Mental Health	<ul style="list-style-type: none"> • Composite International Diagnostic Interview-Short Form (CIDI-SF): Kessler, Andrews, Mroczek, Ustun & Wittchen, 1998
Maltreatment Risk	
Physical Child Abuse Risk	<ul style="list-style-type: none"> • Parent-Child Conflict Tactics Scales (PC-CTS) (Straus et al., 1996) <ul style="list-style-type: none"> ○ Psychological Aggression ○ Physical Assault ○ Nonviolent Discipline
Child Neglect	<ul style="list-style-type: none"> • CTS-Neglect Scale (Straus et al., 1996)

Study Recruitment and Enrollment Procedures

Participants in this study were recruited from two agency sites in the greater Chicago area: the Infant Welfare Society of Evanston and ChildServ.

In order to be eligible for enrollment into this study, participant families must have met the following inclusion and exclusion criteria. Mothers and fathers (at time of program enrollment) must have been:

- 1) 15 years or older;
- 2) at the beginning of their enrollment in home visitation services at either the Infant Welfare Society of Evanston or ChildServ;
- 3) the biological mother or biological father of the target child enrolled for services (i. e., grandmothers, foster or step-parents, or other family caregivers were not eligible for enrollment);
- 4) fluent in English;
- 5) free of any major mental illnesses in which psychosis is involved, given that this intervention is not equipped to address such major mental illnesses;
- 6) free of prior or current child protective services involvement; and
- 7) in the third trimester of pregnancy, or already delivered.

In addition, as this study sought to learn about strategies to promote fathers' involvement in services and with their children, mothers and fathers were also eligible only if the biological father in the parental dyad was geographically accessible (and therefore potentially engageable in services) and could provide consent (for example, families with incarcerated fathers were ineligible). Mothers and fathers eligible for services at these sites could be primiparous (first-time parents) or multiparous (having one or more children in addition to the child targeted for home visiting services). Finally, in order to be eligible for the study, mothers must have been at least into the third trimester of their pregnancy with the child targeted for home visiting services.

For the comparison group condition, the study team enrolled 12 families from October 2010 to August 2011. These families received home visiting services as usual with no changes to their services. The only research activity experienced by these families included the completion of a baseline and four-month follow-up interview. After training staff in September 2011 on the **Dads Matter** enhancement and implementing a clinical supervision model and monitoring mechanisms to ensure and measure fidelity in implementing the enhancement, the study team then opened enrollment for the intervention group, beginning October 2011.¹ The study's project coordinator maintained intensive contact with the program directors at each of the sites in order to review all families entering the partner home visiting programs for potential eligibility and enrollment into the study.

¹ Because this research study has remaining extramural support from other foundation sources, the study team is continuing to actively seek referrals into the intervention arm of the study at the two remaining study sites.

Upon their initial contact with families deemed eligible for study enrollment, home visiting staff have been trained by the study team to inform potential participant parents about the study in a general sense. An eligibility screening form was employed by the home visiting staff to guide the introduction of the study to potential participants and assess preliminary eligibility. If the family appeared to meet eligibility criteria, the research staff conducted an IRB-approved informed consent process and then collected baseline data, including a structured interview with mothers and fathers separately.

Approaching four months after this intake interview the data collector contacted the family to arrange a follow-up interview. At that visit the data collector employed the same structured interview with mothers and fathers in order to assess pretest-to-post-test changes.

Enrollment of Mothers and Fathers

During the initial comparison group phase, 22 families were referred to the project. Of these 22, seven were not eligible according to the study criteria. Of the 15 eligible families, 12 enrolled in the study, and three declined to participate, yielding an enrollment rate of 80% of eligible families during this phase. At the start of the project, the home visiting programs initially referred several cases which did not meet eligibility criteria (e. g., due to language or timing in their pregnancy). The three families that opted out of the study when approached by the study's research interviewer noted recent changes to employment, as well as living situations, that they felt precluded their participation due to scheduling or other personal reasons.

As expected, a greater proportion of mothers in the comparison group completed the data collection interviews than fathers at both baseline and four-month follow-up. Of the 12 families enrolled in the comparison group, 100% of mothers were interviewed at baseline, and nine of 12 fathers (75%) completed the baseline interview.

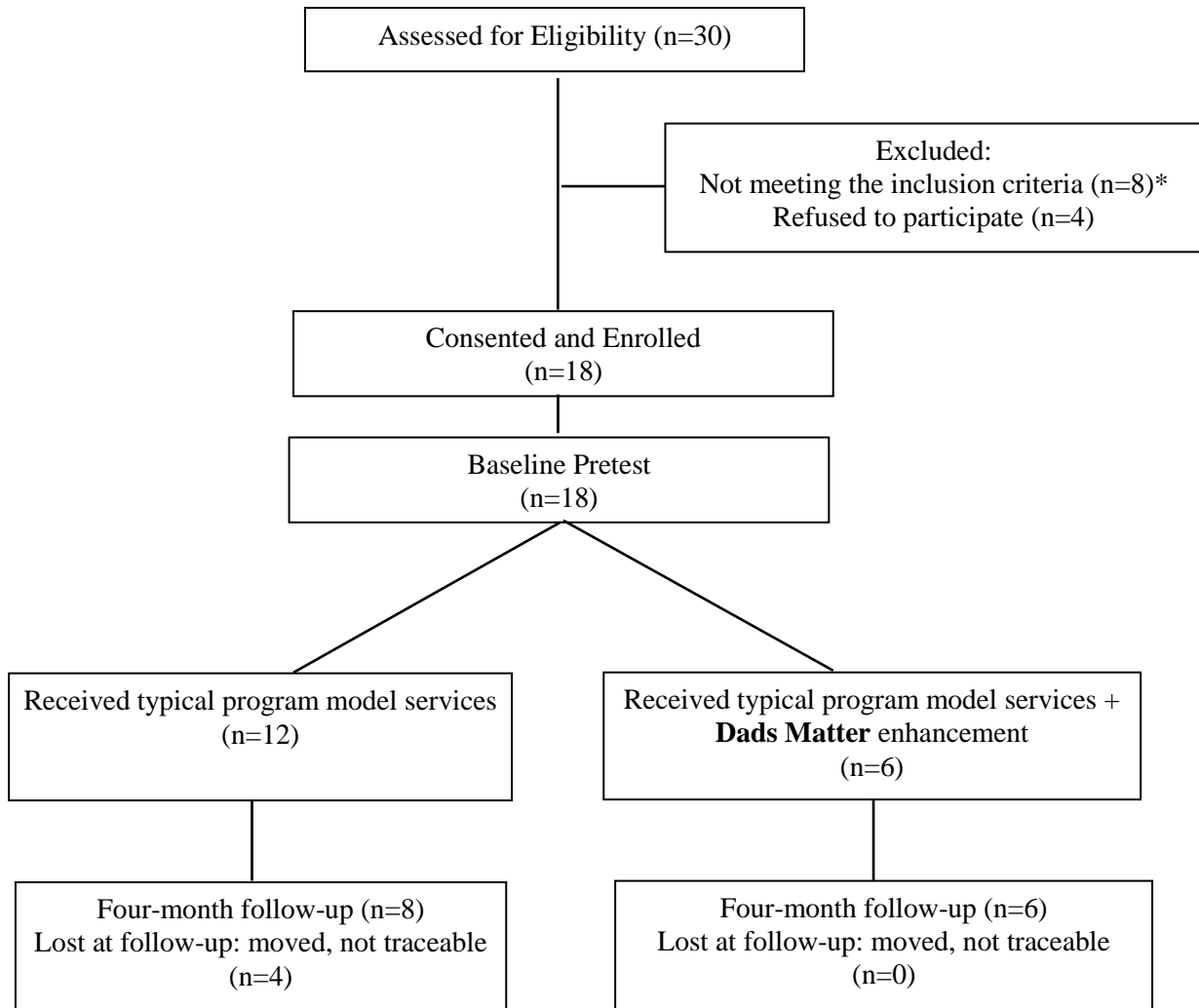
At the follow-up data collection point, eight of the 12 (66.7%) enrolled families completed the four-month follow-up interview. Each of the four families lost to follow-up had also lost contact with the home visiting program staff, and their cases were ultimately closed as a result. At the four-month follow-up, one of the fathers who initially declined the baseline interview decided to participate in the interview, resulting in a total of four of the fathers in the remaining eight families (50% of retained families) successfully completing the four-month follow-up interview. Our partner site, ChildServ, saw three of its eight participants drop out of services and out of contact. ChildServ later reported that they regularly over-enroll participants as they see many more families drop out of services or contact, specifically within two of its service neighborhoods in Chicago. The study participants who dropped out were all from these two neighborhoods. Infant Welfare Society retained a higher percentage of families, only losing one of its four families from our intake to follow-up interview.

During the intervention phase, six families were referred to the project to date. Of these six, all families were eligible and were successfully enrolled, with baseline data collected on all mothers and fathers (100%). At four-month follow up, all parents in the six families completed their four-month follow-up interviews (100%). Although the number of families enrolled in the intervention phase were small, they are comparatively promising, with no dropouts, suggesting a trend toward stronger retention in the **Dads Matter** group, and also providing preliminary evidence that a sample of mothers and fathers can successfully be enrolled and sufficiently

retained in a randomized trial. It should also be noted that the two project sites improved their screening process over time, which likely contributed to an improved study enrollment during the intervention phase of the study.

Figure 2: Study Enrollment Flowchart and Sample Retention

N=number of families in which at least one parent completed an interview



* (n=5) Five families decided not to continue with home visiting program or were later found ineligible by program. (n=3) Three families were ineligible due to language or incarceration.

Intervention numbers do not include recently referred families for which study activities presently continue, including three open and recently baseline interviewed.

Demographics

Table 2 depicts an overview of the demographic composition of the pilot study sample. The study sample predominantly includes low-income African American families with some Latino and Asian families also represented. The average age of parents was slightly younger in the intervention condition, with average ages in the low to mid-20s. The demographic data collected thus far for the intervention group preliminarily indicates that families represent similar demographics and include either African American or Hispanic parents. In both the comparison and intervention groups, biological mothers are typically younger than the biological fathers by several years. Nearly 100% of participants indicated they receive some type of public assistance.

Marital status varied among the comparison group families, while all parents in the intervention condition were never married. Among families in the comparison group, eight mothers (66.6%) and five fathers (55.6%) were never married. Four of the 12 couples (33.3%) were currently married. While all families in the intervention sample noted they were never married, they reported variations in their current relationships. Two-thirds reported they were not married, but living together, while the other third reported being romantically involved but not living together. While comparatively more comparison group families reported being married, they resembled the intervention group families in this respect.

Six fathers (50%) in the comparison group condition were employed, with another four (42%) being unemployed, and one (8%) still in school or a training program. Two fathers (33%) in the intervention condition were employed, three (50%) were unemployed, and one (17%) was still in school or in a training program. Fathers in both conditions had histories of incarceration. Five fathers (42%) in the comparison group condition had ever been in prison, compared to two fathers (33%) in the intervention group.

Table 2: Demographic ComparisonStandard Home Visiting (HV) Comparison Group and Home Visiting + *Dads Matter* (HV+DM) Enhancement Intervention Group

	Baseline Pretest				Four-Month Follow-up			
	HV		HV+DM		HV		HV+DM	
	<i>N(%) or Mean (SD)</i>							
Race	Mother (n=12)	Father (n=9)	Mother (n=6)	Father (n=6)	Mother (n=8)	Father (n=4)	Mother (n=6)	Father (n=6)
Black	10(83%)	7(78%)	4(67%)	4(67%)	7(88%)	3(75%)	5(83%)	5(83%)
Hispanic	1(8%)	1(11%)	2(33%)	2(33%)	--	--	1(17%)	1(17%)
Asian/Pacific Islander	1(8%)	1(11%)	--	--	1(12.5%)	1(25%)	--	--
Marital Status								
Never Married	8(67%)	5(56%)	6(100%)	6(100%)	5(63%)	3(75%)	6(100%)	6(100%)
Ever Married	4(33%)	4(44%)	--	--	3(38%)	1(25%)	--	--
<i>Of those ever married:</i>								
<i>Married</i>	4(100%)	4(100%)	--	--	3(75%)	--	--	--
<i>Separated/ Widowed</i>	--	--	--	--	1(25%)	--	--	--
<i>Divorced</i>	--	--	--	--	--	--	--	--
Current Relationship of Biological Parents								
Married/Living Together	4(33%)	4(44%)	--	--	1(13%)	1(25%)	--	--
Not Married/Living Together	6(50.%)	4(44%)	3(50%)	3(50%)	2(25%)	1(25%)	4(67%)	4(67%)
Romantically Involved/Not Living Together	1(8%)	1(11%)	3(50%)	3(50%)	1(13%)	1(25%)	2(33%)	2(33%)
Friends Only/Not Living Together	1(8%)	--	--	--	1(13%)	1(25%)	--	--
We hardly ever talk	--	--	--	--	2(25%)	--	--	--
We never talk	--	--	--	--	1(13%)	--	--	--
Age								
Mean(SD)	25.9(6.3)	27.3(5.9)	23.5(5.3)	22.0(4.6)	--	--	--	--
Father Work or School								
Working	6(50%)	--	2(33%)	--	5(63%)	--	2(33%)	--
Unemployed	5(42%)	--	3(50%)	--	--	--	3(50%)	--
School or Training Program/Working	1(8%)	--	1(17%)	--	2(25%)	--	1(17%)	--
Jail/Prison	--	--	--	--	1(13%)	--	--	--

	Baseline Pretest				Four-Month Follow-up			
	HV		HV+DM		HV		HV+DM	
	<i>N(%) or Mean (SD)</i>							
Father Ever in Prison								
Yes	5(42%)	--	2(33%)	--	5(63%)	--	2(33%)	--
Highest Grade of School Completion								
High School	6(50%)	6(67%)	5(83%)	6(100%)	--	--	--	--
College or University	6(50%)	3(33%)	1(18%)	--	--	--	--	--
Annual Income								
Mean(SD)	14,549 (11986)	15,355 (16,370)	8,125 (3792)	2039 (1801)	--	--	--	--

Summary of Enrollment and Engagement Trends

As noted in the earlier enrollment report, recruitment of families into the comparison group condition reflected some anticipated obstacles related to enrollment of fathers into the study as well as some unanticipated obstacles with enrollment related to the study sites. In the initial comparison group phase, the research team was able to engage 75% of fathers, or nine out of the 12 eligible father participants for the baseline interview. This lower rate of participation by fathers was expected, as fathers typically enroll in similar studies at significantly lower rates than mothers. Also, fathers typically have not been engaged in home visiting services, making it more difficult to maintain contact. In the intervention group condition, 100% of fathers in the intervention group enrolled and completed the baseline interview. This rate has continued through the intervention phase of the study and is one positive trend, supporting the feasibility of conducting a randomized trial with satisfactory enrollment of fathers as study subjects.

While the intervention phase of the study is still underway, the families that have been enrolled to date into the intervention group have been well engaged in program services, including both mothers and fathers. All of the intervention group families who reached the four-month follow-up completed all study interviews. Compared to the comparison group condition, one difference that may account for this high completion rate thus far can be seen in the stability of relationship status at follow-up. As noted earlier, comparison group families reported significant changes in relationship or father accessibility, including several reports of little to no contact with the father, parents becoming separated between the measurements, and in one case the father going to jail. The study team will continue to monitor any emerging patterns in study enrollment vis-à-vis family and program characteristics in order to maximize learning about participant recruitment, enrollment, and retention.

Overall, the enrollment and retention rates achieved are on par or better than similar clinical trials in the home visiting field, and, in particular, the enrollment of 75% of eligible fathers provides one indication that we can run a larger-scale randomized clinical trial feasibly and with sufficient retention and sample integrity. Although we saw only a 50% retention of fathers in the comparison group condition at the four-month follow-up phase, this is due, at least in part, to troubles at the primary study site (ChildServ) retaining families in specific neighborhoods at their programs. While a bit too early to assess, the preliminary 100% enrollment and retention of fathers completing the baseline phase further underscores not only the feasibility of sample enrollment in a larger-scale randomized trial with sufficient data from fathers, but if this holds up, might suggest a favorable receptivity of fathers to their involvement in the **Dads Matter** project. Once the study enrollment and data collection are completed both at baseline and at follow-up, we can better assess these variables in preparation for a larger-scale clinical trial.

Implementation and Fidelity Monitoring

Home visitors were asked to complete a “Parent Service Log” (PSL) immediately after each contact with study families in the intervention condition and for a random selection of families on the current caseloads one month prior to the start of the intervention condition. The PSL is organized by and thus allows for documentation of specific usage of the intervention manual sections. It further asks workers to designate whether the activity was carried out with the mother or father, or both parents. Home visitors were asked to complete the PSL after each home visit or some other “significant contact” with the family, which could have been over the phone or in person out of the home. A copy of the PSL instrument is included (Appendix A.)

We wish to underscore that the PSL comparison group sample differs from the study comparison group cases. The PSL comparison group was created by asking home visitors to complete PSLs with existing, eligible families within the ChildServ project site. To maximize comparability, families must have met the study eligibility requirements; however, these families were not necessarily just beginning services. Home visitors were asked to complete PSLs for these families during a specified two-month period (August – September 2011), which coincided with the study comparison group data collection, and just prior to the initiation of the intervention group condition. The PSLs completed during the intervention condition, however, are comprised one-to-one with cases that were enrolled in the intervention study condition. Home visitors at all sites were asked to complete PSLs following all significant contacts with families during the **Dads Matter** intervention phase.

Due to the nature of the comparison and intervention PSL data collection, fewer PSLs were completed per family in the comparison group than in the intervention group; we expected to see fewer assessment and engagement activities completed with the comparison group families, as some of the families had been receiving services for some time and engagement and assessment activities were no longer the focus of home visiting services.

Table 3 provides a descriptive representation of the PSL data as a measure of intervention implementation fidelity. Although direct comparisons cannot be made, given that the sampling strategy for the comparison PSLs was different than the intervention group, preliminary trends in differences in the comparison versus intervention group are rather substantial and indicate that workers increased the number and frequency of activities aimed at fathers after receiving training in the **Dads Matter** enhancement. Only a third of comparison group families received any father service activity, while 100% of intervention families received some type of father service activities. Also interesting to note is that workers appear to also increase a number of intervention-related activities for mothers as well, although not to the same extent as fathers. This suggests that home visitors did indeed change their practice in ways in accordance with the **Dads Matter** intervention that would be predicted, given the content of the training, manual, and supervision provided to the workers.

With respect to the intervention group, home visitors noted that they provided some direct services from each of the primary **Dads Matter** modules in almost all cases. As expected, the exceptions to this were found in more specialized modules (stress management and anger management for both mothers and fathers), as these were not planned nor expected to be delivered across-the-board to all families. Table 3 also shows that significant dosage of core intervention components (for example, father assessment and engagement activities) were delivered, given that these activities were engaged in across approximately half of the contacts workers held with each family.

Please note that in some cases the worker may leave materials specifically for the father at a visit when he was not present. For example, a worker may leave a personal note for a father saying she missed him at the meeting and inviting him to the next visit and include this in the PSL as a father engagement activity. This reflects the flexibility inherent in the manual to allow workers to attempt to engage fathers in services, even when they do not participate in home visits.

Because the PSL data collection procedures do not allow for a direct comparison (and due to small Ns), significance testing for group differences was not performed.

Table 3: Parent Services Log (PSL) Implementation and Fidelity Check

	Group			
	Comparison Group		Intervention Group	
	% of Families Ever Receiving Service Component	% of Visits Component Used	% of Families Ever Receiving Service Component	% of Visits Component Used
Mother				
Assessment Activities	53.3%	37.0%	100.0%	85.1%
Father Engagement Activities	60.0%	37.0%	100.0%	76.6%
Roles and Expectations Activities	66.7%	51.9%	100.0%	70.2%
Communication Activities	60.0%	44.4%	100.0%	74.5%
Goal Setting Activities	93.3%	81.5%	100.0%	68.1%
Problem Solving Activities	86.7%	66.7%	100.0%	57.4%
Stress Management Activities	80.0%	59.3%	83.3%	55.3%
Help Seeking Activities	46.7%	33.3%	100.0%	63.8%
Anger Management Activities	46.7%	29.6%	83.3%	23.4%
Father				
Assessment Activities	6.7%	3.7%	100.0%	42.6%
Father Engagement Activities	33.3%	18.5%	100.0%	51.1%
Roles and Expectations Activities	0.0%	0.0%	100.0%	42.6%
Communication Activities	13.3%	7.4%	100.0%	38.3%
Goal Setting Activities	20.0%	11.1%	100.0%	31.2%
Problem Solving Activities	20.0%	11.1%	100.0%	29.8%
Stress Management Activities	26.7%	14.8%	50.0%	27.7%
Help Seeking Activities	0.0%	0.0%	100.0%	29.8%
Anger Management Activities	6.7%	3.7%	50.0%	17.0%
Total Father Activity	33.3%	18.5%	100%	59.6%
N	27 Parent Service Logs, 15 Families		47 Parent Service Logs, 6 Families	

Calculation of Outcome Metrics

Tables 4a through 4c summarize the preliminary evidence collected from the baseline and four-month follow-up interviews. Raw mean scores and their standard deviations are presented for each parent across conditions and show change from baseline to four-month follow-up interview. Changes in these scores, pre-to-post were standardized according to Cohen's D statistic to provide a common metric from which to estimate the magnitude of effect sizes observed in this small sample. D scores for a selection of child maltreatment proxy variables could not be calculated due to a lack of any variability across pre- and post-test administrations, and also due to the small sample size in the present study.

Cohen's D scores were calculated to compare the changes (baseline and four-month follow-up) within each group to give an estimate of the magnitude of the effect of the intervention using the following formulae:

$$D - score = \frac{Mean_{4MonthFollowUp} - Mean_{baseline}}{\sigma_{pooled}}$$

$$\sigma_{pooled} = \sqrt{\frac{sd_{baseline}^2 + sd_{follow-up}^2}{2}}$$

* $D score_{Intervention} - D score_{Comparison} = Difference: Intervention minus Comparison$

Given the small sample size of this study, D score calculations were not corrected for dependence among means with within-subject studies (as recommended by Morris & Deshon, [60]), as such calculations resulted in wide variations and biases in some scales. After calculating D scores within groups for pre-post measures, we then subtracted D scores observed in the intervention group, minus D scores observed in the comparison group to assess the comparative magnitude of changes observed in key study variables across groups. With the few scores that were collected only at post-test, we subtracted the D comparison from the D intervention group to calculate a comparative effect size metric.

Although we present estimated effect sizes here, differences between comparison and intervention groups should be interpreted with caution, given the small sample sizes and the pilot nature of this project. Caution should be taken as D scores are interpreted with regard to the standard deviation of the sample which can be large in relatively small samples. Likewise, we would caution against a fine-tuned interpretation of results on specific measures, but we would rather encourage the reader to interpret the following tables as suggestive of potential trends that merit further investigation in a larger randomized trial.

Results

Table 4a presents the summary and D scores for comparison versus intervention group parents on measures designed to assess the mother/father relationship. Please note that for all measures presented, positive and higher scores indicate a more positive outcome, except for the abuse subscale (RQ). Baseline relationship measures appear to be roughly equivalent for both the

comparison and intervention group, suggesting that the groups are roughly comparable in terms of the mother/father relationship.

Most of the D scores for the comparison group suggest that the mother-father relationship declined in quality over the four-month study period. Although the D scores for the intervention group also evidence some declines in the quality of the mother-father relationship, the deterioration does not appear to be as great, and in some cases the relationship quality appears to be improved. This is reflected in the intervention-comparison D score differences presented in the last column of Table 4a, which are in the hypothesized direction in most instances, with the magnitudes ranging from small observed effects (partner confidence in other parent's abilities), to large (emotional appraisal of the partner, partner abuse, and overall quality of the parenting alliance). Mothers in the intervention group rate fathers as being more involved with children following the intervention. These trends suggest that the **Dads Matter** enhancement may serve as a generally protective intervention for mother-father relationships. The exception to this apparent trend is perceived social support. Parents in the comparison group, especially mothers, show gains in perceived social support, whereas both parents' evidence declines in social support in the intervention group. The unexpected trend on these measures would nonetheless be interpretable as a small to potentially negligible effect size (in a larger study sample).

Table 4b presents the summary and D scores for comparison versus intervention group parents on measures designed to assess differences in parenting. Please note that for each of the measures, a higher score indicates a more positive outcome, except for the PSI measures, while a lower score indicates a more positive outcome.

Overall the results for mothers specifically are in general as expected but also show some mixed elements. The intervention-group mothers did not report across-the-board improvements in parenting relative to the comparison group. Mothers in the **Dads Matter** condition report a clear relative improvement in fathers' involvement with the child, and conversely a modestly sizeable decline in their perceptions of their own involvement with the child. Mothers in the intervention group report a comparative improvement in parenting distress, but also comparatively (small) relative declines in the child-related stresses.

The trend with respect to parenting indices for fathers also reports some interesting preliminary trends. Fathers receiving the **Dads Matter** enhancement services appear to more highly value their contribution to their child's well-being and report less parenting stress and child-related problems than fathers in the comparison group condition. Whereas fathers in the intervention group report greater behavioral involvement with their child and no change in their perceived importance to the child, fathers in the comparison group report substantially lower behavioral involvement with their child, while also reporting a greater self-assessment of their importance to the child. Finally, while fathers do not differ substantially across groups with regard to their assessment of mothers' actual involvement, fathers in the **Dads Matter** intervention group report a comparatively large (one full standard deviation change) on their assessment of mothers' importance to the child.

Although the results of the child maltreatment risk measures are presented in Table 4c, since the prevention of child maltreatment is a key outcome of interest targeted by home visiting services and the **Dads Matter** service enhancement, the potential for data interpretation here is somewhat limited. There was very little variability in terms of the responses provided by parents on these items. The lack of variance combined with the small sample size makes even the broad

interpretation of trends inadvisable. Some of the measures included in the CTS have very low rates of incidence, likely due to the severity of the maltreatment described in the scale. Nonetheless, parents successfully completed these measures, and studies from numerous prior randomized trials in the home visitation field indicate these measures can be feasibly and validly employed in a larger randomized trial of this enhancement.

The measures of parenting quality presented in the aforementioned tables, however, have been found to be consistently correlated with maltreatment risk and serve as more interpretable and intermediate indicators of maltreatment risk.

Finally, not shown in the outcome tables and measured only at the four-month follow-up interview, the Relational Health Index, a measure of relationship quality with the home visitor, indicated that mothers receiving the **Dads Matter** enhancement reported a higher positive relationship with their worker at follow-up interview (Mean = 47.7, s. d. = 2.7) than mothers in the comparison group (Mean = 45.1, s. d. = 10.1). Particularly notable, fathers receiving the **Dads Matter** enhancement reported a substantially more favorable relationship quality with the home visitor at follow-up (Mean = 46.8, s. d. = 6.7) when compared with those in the comparison group (Mean = 35.8, sd = 12.5).

Table 4a: Mother-Father Relationship – Means, Standard Deviations, and D scores

	Comparison		D score	Group		D score	D: Intervention - Comparison
	Mean(SD) <i>at baseline</i>	Mean(SD) <i>at follow-up</i>		Mean(SD) at baseline	Mean(SD) at follow-up		
Mother/Father Relationship							
Mother Report							
Total Parent Alliance (PAI)	135.7(13.7)	115.0(27.9)	-.94	138.2(9.0)	137.5(9.2)	-.07	0.87
Emotional Appraisal of Spouse (PAI)	64.1(6.1)	53.5(14.5)	-.95	64.8(4.3)	65.0(3.7)	.04	0.99
Shared Philosophy and Perceptions of Parenting (PAI)	52.9(6.2)	43.5(12.4)	-.96	55.5(3.7)	54.5(4.4)	-.25	0.71
Partner Confidence in Own Parenting (PAI)	18.7(2.5)	18.0(2.6)	-.26	17.8(2.3)	18.0(1.7)	.08	0.35
Support Subscale (RQ)	13.5(1.7)	10.1(3.7)	-1.17	14.0(1.3)	12.8(1.7)	-.78	0.39
Abuse Subscale (RQ)	5.4(2.1)	7.0(3.4)	.56	4.3(0.8)	4.0(0.0)	-.57	-1.13
n	12	6		8	6		
Father Report							
Total Parent Alliance (PAI)	137.1(12.5)	128.3(29.5)	-.39	134.5(13.6)	129.0(18.5)	-.34	0.05
Emotional Appraisal of Spouse (PAI)	63.9(8.3)	61.8(11.6)	-.21	63.2(6.6)	60.2(8.6)	-.39	-0.18
Shared Philosophy and Perceptions of Parenting (PAI)	55.1(3.3)	49.8(13.4)	-.55	53.5(5.4)	51.5(7.7)	-.30	0.25
Partner Confidence in Own Parenting (PAI)	18.1(2.5)	16.8(4.6)	-.37	17.8(1.8)	17.3(2.4)	-.23	0.14
Support Subscale (RQ)	13.9(1.6)	12.0(4.2)	-.59	13.5(2.5)	13.2(2.5)	-.13	0.46
Abuse Subscale (RQ)	5.0(0.7)	5.5(1.0)	.58	4.5(0.8)	4.5(0.8)	.00	-0.58
n	9	6		4	6		
Social Support							
Mother Report							
Perceived Social Support (MSPSS)	36.7(16.2)	39.6(15.1)	.19	34.5(10.1)	34.8(13.2)	.03	-0.16
Father Report							
Perceived Social Support (MSPSS)	33.3(7.9)	40.5(17.1)	.54	35.5(7.6)	38.3(6.7)	.40	-0.14
n	9	6		4	6		

Table 4b: Parenting Scales – Scale Summary and D scores

	Comparison		D score	Group		D score	D: Intervention - Comparison
	Mean(SD) <i>at baseline</i>	Mean(SD) <i>at follow-up</i>		Intervention			
				Mean(SD) at baseline	Mean(SD) at follow-up		
Parenting Scales							
Mother Report							
Father Involvement with Child(ren)	24.8(9.2)	17.1(8.3)	-.88	27.1(4.5)	29.8(5.2)	.56	1.44
Perceptions of Partner Involvement (MFI)	32.3(12.9)	21.9(19.6)	-.63	43.8(2.5)	38.0(9.2)	-.87	-0.24
Perceptions of Own Involvement (MFI)	41.8(8.4)	44.3(6.7)	.32	48.5(6.0)	45.5(9.6)	-.38	-0.69
PSI: Parental Distress (PSI-SF)	31.2(9.6)	32.5(9.8)	.14	26.2(3.5)	25.0(4.2)	-.30	-0.44
Parent-Child Dysfunctional Interaction (PSI-SF)	18.7(4.4)	17.3(2.8)	-.38	18.3(4.7)	17.5(4.2)	-.19	0.20
PSI: Difficult Child (PSI-SF)	21.3(6.9)	19.4(6.8)	-.27	21.3(7.9)	21.3(6.9)	.00	0.27
n	12	6		8	6		
Father Report							
Father Involvement with Child(ren)	26.8(6.6)	22.3(3.6)	-.87	29.9(4.0)	30.2(5.6)	.05	0.92
Importance to Child's Health/Education (FA)*	40.4(2.2)	40.8(2.5)	.13	37.3(5.1)	38.5(4.3)	.25	0.12
Importance to Mother/Coparent (FA)*	19.9(1.5)	17.3(6.9)	-.53	18(3.3)	19.3(2.3)	.47	1.00
General Importance to Child (FA)*	40.2(2.8)	41.8(0.5)	.77	38.7(4.1)	38.7(5.3)	.00	-0.77
Father Attitude Total Scale (FA)*	100.6(5.4)	99.8(6.4)	-.14	94(9.8)	96.5(10.2)	.25	0.39
Perceptions of Partner Involvement (MFI)	42.1(7.5)	44.8(14.2)	.23	40.7(14.7)	43.2(16.1)	.16	-0.07
Perceptions of Own Involvement (MFI)	33.6(10.1)	35.3(16.9)	.12	37.5(13.3)	35.7(12.4)	-.14	-0.26
PSI: Parental Distress (PSI-SF)	22.8(8.2)	23.3(7.7)	.06	31.2(9.1)	24.7(13.9)	-.55	-0.61
Parent-Child Dysfunctional Interaction (PSI-SF)	19.8(7.3)	19.0(5.6)	-.12	22.5(7.2)	18.5(6.1)	-.60	-0.48
PSI: Difficult Child (PSI-SF)	21.7(8.6)	21.3(8.3)	-.05	27.3(5.5)	22.5(8.1)	-.70	-0.65
n	9	6		4	6		

*Only father completed scale.

Table 4c: Maltreatment Risk – Summary Table and D scores

	Group						
	Comparison			Intervention			D: Intervention - Comparison
	Mean(SD) <i>at baseline</i>	Mean(SD) <i>at follow-up</i>	D score	Mean(SD) at baseline	Mean(SD) at follow-up	D score	
Maltreatment Risk Scales							
Mother							
Child Neglect Scale (CTS)	1.25(2.26)	0.88(1.81)	-.18	0.83(2.04)	0.83(2.04)	.00	0.18
Physical Assault (PC-CTS)	5.92(2.15)	7.13(6.01)	.27	5(0)	5(0)	--	--
Psychological Aggression (PC-CTS)	8.42(4.89)	10(6.44)	.28	5(0)	5.83(2.04)	.58	0.30
n	12	6		8	6		
Father							
Child Neglect Scale (CTS)	0(0)	0.5(1)	.71	0.83(2.04)	0.83(2.04)	.00	-0.71
Physical Assault (PC-CTS)	6.67(3.32)	7.75(5.5)	.24	5(0)	5(0)	--	--
Psychological Aggression (PC-CTS)	8.11(5.11)	10(6.63)	.32	5(0)	5(0)	--	--
n	9	6		4	6		

Discussion

This pilot study was designed to assess the feasibility and promise of a brief modular intervention, the **Dads Matter** service enhancement, targeting fathers within families receiving typical home visiting services. The focus of the intervention was to provide home visitors with additional tools and support to engage and serve fathers within the context of standard home visiting models from the outset of services.

The results of the pilot study are promising in that they are generally supportive of the feasibility, acceptability, and potential benefit of the **Dads Matter** home visiting service enhancement as well as the potential for carrying out a larger, more rigorous test that examines the efficacy of the intervention. Fathers were well engaged in the service enhancement, as well as in the pilot study, above and beyond that evidenced in standard services and prior home visiting research. Home visitors appeared to change their practice in ways that were reflective of the intervention following training in the modules. In addition, valuable data were gathered in service of informing improvements to the intervention modules, training, and clinical supervision model employed. Results from this pilot study are encouraging and supportive of future research and development of the **Dads Matter** service enhancement.

A time-lagged comparison group design was implemented to maximize empirical lessons for feasibility and rigor during a pilot test phase, while permitting the establishment of preliminary trends on observed outcomes within a short time period. Due to a small sample size, all enrolled cases were included in the final results and analysis, which may introduce bias in results from extreme outliers influencing small effects. Although a relatively small sample of families was recruited into the pilot study, and outcomes were only examined after the brief intervention was delivered, some of the potential benefits of the intervention are particularly noteworthy including: a sizeable increase in the inclusion of fathers in services, the strong trend toward retention of mothers and fathers in the study, mothers' reports of fathers' involvement, and increases in fathers' perception of their contributions to their children's well-being.

The findings presented suggest that a full randomized study is warranted to assess the full potential of preliminary trends, and re-test an improved version of the **Dads Matter** service enhancement, which will have the benefit of refinement based on data collected during this study. The successful implementation of the intervention under "real world" conditions support its potential for application in the field and broad dissemination, should future research continue to support its effectiveness. While preliminary trends in this study are encouraging and indicate initial positive trends, a larger sample, under random assignment conditions, will help clarify the effects of **Dads Matter** across study measures (including the potential to more successfully track child maltreatment outcomes), and a lengthened post- or follow-up assessment will help understand the prolonged effects of the intervention on future father involvement and relevant outcomes.

Methodological and pragmatic lessons learned through this pilot work will be essential for the design and development of a larger, more rigorous test of the service enhancement and suggest adjustments that may be needed. For example, some home visitors were not able to implement the "advanced" modules with fathers, given the short time horizon of the intervention study. Depending on the needs of the father and family, the worker may have focused much of the early

months on engaging fathers (a challenge that has been often described by service providers). The intervention may easily be extended into the later months of services.

Another contribution of this project to the field was the development of a new measure, the “Father Attitudes” scale. Following a thorough review of available measures, the study team could not identify an existing scale designed to tap fathers’ sense of their own importance or efficacy in improving their child’s well-being and contributing to the co-parenting team. Improving fathers’ sense of ability to support their children’s health, education, and generally well-being as well as his value as a partner in parenting with mothers is a key clinical target within the **Dads Matter** modules. The results suggest that the intervention may benefit fathers as measured by this scale. Although the study sample is too small to allow for thorough psychometric testing of the scale, it does provide some early and tentative support for its validity. Increased sample size will allow for conceptual analysis of these possible subscales.

Process documentation of pilot implementation indicate several future changes to the manual and procedures that warrant manual revisions. One example includes the development of all the manual components for use with both mother and father as increases in the usage of components with mothers was noted on the PSL analysis. In the intervention orientation training, it was suggested that workers would be welcome to use any of the materials for moms too, and that some of the activities are indeed aimed at both parents (e.g., co-parenting). Preliminary evidence suggests that this was indeed the case, but across more components than initially planned.

The results of the pilot study are certainly encouraging in that they are generally supportive of the feasibility, acceptability, and promise of the **Dads Matter** home visiting service enhancement as well as the potential for successfully carrying out a larger, more rigorous test of the intervention, under randomized clinical trial conditions. Fathers were successfully engaged in the service enhancement, as well as in the pilot study, above and beyond that evidenced in standard services and prior home visiting research. Home visitors appeared to change their practices in ways that were reflective of the intervention following training. Promising trends appear to include benefits in parenting as well as fathers’ perception of their own value and efficacy as parents and contributors to their children’s well-being. In addition, valuable data were gathered in service of informing improvements to the intervention modules, training, and clinical supervision model employed.

This study forged a significant step toward establishing a strategy to include biological fathers in home visiting services by successfully pilot testing a manualized enhancement that can next be subjected to rigorous scientific study under randomized clinical trial conditions. It provided invaluable data that suggests a randomized trial of this intervention is warranted, and will, with the effect sizes reported in this report, provide the basis to conduct a power analysis that will help determine the optimal sample size for such a randomized trial. If found beneficial in the next phase, under these more carefully controlled conditions, such an intervention holds the potential to significantly inform and undergird the advance of home visitation services, across a variety of program models, by better including biological fathers in ways that benefit mothers and children. Lacking this information, we believe the evidence reported here, and prior empirical work on the importance of fathers in early childhood, indicates that the potential benefits of home visitation for vulnerable families will remain less than fully realized.

APPENDICES

Appendix A: Parent Service Log

PARENT SERVICES LOG

SITE: IWSE CNE
 Childserv

LOG GROUP #: _____

CASE ID:
(Mother's Initials) _____

DATE OF CONTACT: ___/___/___ 20___/___
Month Day Year

TYPE OF CONTACT: Phone Face-to-face
 Other (specify: _____)

WHO DID YOU WORK WITH DURING THIS CONTACT? (Check all that apply)

- Biological mother (of at least one child) Target child/children
 Biological father (of at least one child) Other (specify: _____)

Father	Mother	ASSESSMENT
		Assessed risks and strengths associated with the mother-father relationship
		Assessed father's risks and strengths
		Assessed whether or not father and mother are able to participate in visits together
FATHER ENGAGEMENT		
		Provided something specifically to the father (information, materials, activity, note) during or after the visit
		Personally invited the father to attend the next visit in person or through a phone call, email or letter to him
		Addressed barriers (scheduling, transportation, etc.) that make it difficult for the father to participate
		Told the parent how helpful it is to have both mothers and fathers participate in services when possible
ROLES AND EXPECTATIONS		
		Helped the parent identify his or her own parenting roles and expectations
		Discussed the parent's understanding of the other parent's roles and expectations
		Provided parent with information about how fathers' positive parenting helps child development
COMMUNICATION		
		Discussed communication styles and challenges in the mother-father parenting relationship
		Provided the parent with tips about good communication skills
		Practiced communication skills with the parent using an activity or role play
GOAL SETTING		
		Helped the parent identify his or her goals for the child
		Pointed out to the parent how the other parent's goals for the child are similar to their own
		Discussed with the parent how their own parenting can help reach the goals they have for their child
		Helped the parent identify his or her own parenting goals
PROBLEM SOLVING		
		Discussed the parent's own problem solving strategies and challenges related to parenting
		Provided the parent with tips on good problem solving skills
		Practiced parenting problem solving with the parent using an activity or role play
STRESS MANAGEMENT		
		Discussed sources of parenting stress with the parent
		Provided the parent with information on the symptoms, impact and management of stress
		Helped the parent practice stress management techniques using an activity or role play
HELP SEEKING		
		Discussed help seeking needs and challenges with the parent
		Provided the parent with information or tips on formal and informal help seeking strategies
		Helped the parent practice help seeking skills or strategies using an activity or role play
ANGER MANAGEMENT		
		Discussed parent's experience with anger , it's impact on parenting, and anger management strategies
		Provided the parent with information on the impact of anger on parenting and anger management tips and strategies
		Helped the parent practice anger management skills using an activity or role play

Mark with a check any of the following you did during your contact with the child's biological mother and/or father

Appendix B: References

1. Shonkoff, J.P. and D.A. Phillips, *From neurons to neighborhoods: The science of early childhood development* 2000, Washington, D. C.: National Academy Press. 4-7.
2. Bilukha, O., et al., *The effectiveness of early childhood home visitation in preventing violence: A systematic review*. American Journal of Preventive Medicine, 2005. **28**(2S1): p. 11-39.
3. Guterman, N.B., *Stopping child maltreatment before it starts: Emerging horizons in early home visitation services*. 2001, Thousand Oaks, Calif.: Sage Publications. xv, 247 p.
4. Sweet, M.A. and M.I. Appelbaum, *Is home visiting an effective strategy?: A meta-analytic view of home visiting programs for families with young children*. Child Development, 2004. **75**(5): p. 1435-1456.
5. Guterman, N.B., *Enrollment strategies in early home visitation to prevent physical child abuse and neglect and the "universal versus targeted" debate: A meta-analysis of population-based and screening-based programs*. Child Abuse & Neglect, 1999. **23**(9): p. 863-890.
6. Olds, D.L. and H. Kitzman, *Review of research on home visiting for pregnant women and parents of young children*. The Future of Children, 1993. **3**(3): p. 53-92.
7. Barkauskas, V.H., *Effectiveness of public-health nurse home visits to primarous mothers and their infants*. American Journal of Public Health, 1983. **73**(5): p. 573-580.
8. Osofsky, J.D., A.M. Culp, and L.M. Ware, *Intervention challenges with adolescent mothers and their infants*. Psychiatry-Interpersonal and Biological Processes, 1988. **51**(3): p. 236-241.
9. Brayden, R.M., et al., *A prospective-study of secondary prevention of child maltreatment*. Journal of Pediatrics, 1993. **122**(4): p. 511-516.
10. Fraser, M.W. and J.D. Hawkins, *The Social Networks of Opioid Abusers*. International Journal of the Addictions, 1984. **19**(8): p. 903-917.
11. Daro, D., et al., *Sustaining new parents in home visitation services: key participant and program factors*. Child Abuse & Neglect, 2003. **27**(10): p. 1101-1125.
12. Gomby, D.S., *Promise and limitations of home visitation*. Journal of the American Medical Association, 2000. **284**(11): p. 1430-1431.
13. Gomby, D.S., P.L. Culross, and R.E. Behrman, *Home visiting: Recent program evaluations--analysis and recommendations*. Future of Children, 1999. **9**(1): p. 4-26.
14. Olds, D.L., et al., *Effects of home visits by paraprofessionals and by nurses: Age 4 follow-up results of a randomized trial*. Pediatrics, 2004. **114**(6): p. 1560-1568.
15. Ammerman, R.T., et al., *In-home cognitive-behavior therapy for depression: An adapted treatment for first-time mothers in home visitation*. Best practices in mental health, 2005. **1**(1): p. 1-14.
16. Bugental, D.B., et al., *A cognitive approach to child abuse prevention*. Journal of Family Psychology, 2002. **16**(3): p. 243-258.
17. Eckenrode, J., et al., *Preventing child abuse and neglect with a program of nurse home visitation: The limiting effects of domestic violence*. Journal of the American Medical Association, 2000. **284**(11): p. 1385-1391.
18. Olds, D.L., *personal communication*, 2009.
19. Sharps, P., et al. *Domestic violence enhanced home visitation program*. 2008 [cited 2008 December 12]; Available from: <http://endabuse.org/health/ejournal/archive/1-6/dove.htm>.

20. Guterman, N.B., *Expanding prevention's reach: Extending the impact of home visitation*, in *23rd Annual International San Diego Conference on Child and Family Maltreatment* 2009: San Diego, CA.
21. Danziger, S.K. and N. Radin, *Absent does not equal uninvolved: Predictors of fathering in teen mother families*. *Journal of Marriage and Family*, 1990. **52**: p. 636-642.
22. Hossain, Z., et al., *Fathers' caregiving in low-income African-American and Hispanic-American Families*. *Early Development and Parenting*, 1997. **6**(2): p. 73-82.
23. Tamis-LeMonda, C., R. Kahana-Kalman, and H. Yoshikawa, *Father Involvement in Immigrant and Ethnically Diverse Families from the Prenatal Period to the Second Year: Prediction and Mediating Mechanisms*. *Sex Roles*, 2009. **60**(7-8): p. 496-509.
24. Perry, A.R., D.K. Harmon, and J. Leeper, *Resident Black Fathers' Involvement: A Comparative Analysis of Married and Unwed, Cohabiting Fathers*. *Journal of Family Issues*, 2012. **33**(6): p. 695-714.
25. Black, M.M., H. Dubowitz, and R.H. Starr, *African American fathers in low income, urban families: Development, behavior, and home environment of their three-year-old children*. *Child Development*, 1999. **70**(4): p. 967-978.
26. Crockett, L.J., D.J. Eggebeen, and A.J. Hawkins, *Father's presence and young children's behavioral and cognitive adjustment*. *Journal of Family Issues*, 1993. **14**(3): p. 355-377.
27. Tamis-LeMonda, C., et al., *Fathers and mothers at play with their 2- and 3-year-olds: Contributions to language and cognitive development*. *Child Development*, 2004. **75**(6): p. 1806-1820.
28. Hossain, Z., et al., *Infants of "depressed" mothers interact better with their nondepressed fathers*. *Infant Mental Health Journal*, 1994. **15**(4): p. 348-357.
29. Roggman, L.A., et al., *Playing with daddy: Social toy play, Early Head Start, and developmental outcomes*. *Fathering*, 2004. **2**(1): p. 83-108.
30. Amato, P.R. and J.G. Gilbreth, *Nonresident Fathers and Children's Well-Being: A Meta-Analysis*. *Journal of Marriage and the Family*, 1999. **61**(3): p. 557-573.
31. Elder, G.H., et al., *Families under economic pressure*. *Journal of Family Issues*, 1992. **13**: p. 5-27.
32. Field, T., *Maternal depression effects on infants and early interventions*. *Preventive Medicine*, 1998. **27**(2): p. 200-203.
33. DeKlyen, M., M.L. Speltz, and M.T. Greenberg, *Fathering and early onset conduct problems: Positive and negative parenting, father-son attachment, and the marital context*. *Clinical Child and Family Psychology Review*, 1998. **1**: p. 3-21.
34. Stormshak, E.A., et al., *Parenting practices and child disruptive behavior problems in early elementary school* *Journal of Clinical Child Psychology*, 2000. **29**(1): p. 17-29.
35. Guterman, N.B., et al., *Fathers and maternal risk for physical child abuse* *Child Maltreatment*, 2009. **14**(3): p. 277-290.
36. Dubowitz, H., et al., *Fathers and child neglect*. *Archives of Pediatrics & Adolescent Medicine*, 2000. **154**(2): p. 135-141.
37. Sinal, S.H., et al., *Is race or ethnicity a predictive factor in shaken baby syndrome?* *Child Abuse & Neglect*, 2000. **24**(9): p. 1241-1246.
38. Stiffman, M., et al., *Household composition and risk of fatal child maltreatment*. *Pediatrics*, 2002. **109**(4): p. 615-621.
39. Shipman, K.L., B.R. Rossman, and J.C. West, *Co-occurrence of spousal violence and child abuse: Conceptual implications*. *Child Maltreatment*, 1999. **4**(2): p. 93-102.
40. Appel, A.E. and G.W. Holden, *The co-occurrence of spouse and physical child abuse: A review and appraisal*. *Journal of Family Psychology*, 1998. **12**(4): p. 578-599.

41. Edleson, J.L., *The overlap between child maltreatment and woman battering*. Violence Against Women, 1999. **5**(2): p. 134-154.
42. Olds, D.L., et al., *Improving the delivery of prenatal care and outcomes of pregnancy: A randomized trial of nurse home visitation*. Pediatrics, 1986. **77**(1): p. 16-28.
43. Navaie-Waliser, M., et al., *Factors predicting completion of a home visitation program by high-risk pregnant women: The North Carolina Maternal Outreach Worker Program*. American Journal of Public Health, 2000. **90**(1): p. 121-124.
44. Stevens-Simon, C., D. Nelligan, and L. Kelly, *Adolescent at-risk for mistreating their children Part II: A home and clinic-based prevention program*. Child Abuse & Neglect, 2001. **6**: p. 153-169.
45. Reichman, N., et al., *Fragile families: Sample and design*. Children and Youth Services Review, 2001. **32**(4/5): p. 303-326.
46. Duggan, A., et al., *Evaluating a statewide home visiting program to prevent child abuse in at-risk families of newborns: Fathers' participation and outcomes*. Child Maltreatment, 2004. **9**(1): p. 3-17.
47. Mrazek, P.J. and R.J. Haggerty, *Reducing Risks for Mental Disorders: Frontiers for Preventive Intervention Research 1994*, Washington, D. C.: Institute of Medicine.
48. Brazelton Center *A review of the early care and education literature: Evidence base for Touchpoints*. n.d.
49. Straus, M.A., *Measuring intrafamily conflict and violence: The Conflict Tactics (CS) Scale*. . Journal of Marriage and the Family, 1979. **41**: p. 75-88.
50. Straus, M.A., et al., *The Revised Conflict Tactics Scale (CTS2): Development and preliminary psychometric data*. . Journal of Family Issues, 1996. **17**: p. 283-316.
51. Lloyd, S., *Physical aggression, distress, and everyday marital interaction*, in *Family violence from a communication perspective*, D.D. Cahn and S.A. Lloyd, Editors. 1996, Sage: Thousand Oaks, CA. p. 177-198.