Minding the Baby® Home Visiting (MTB-HV) Replication Planning Guide: Implementation Considerations

A guide for agencies or funders interested in pursuing MTB-HV model implementation

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Minding the Baby® (MTB) began as a collaboration among the Yale Child Study Center, Yale School of Nursing, Fair Haven Community Health Center, and Cornell Scott-Hill Health Center in New Haven, Connecticut.

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This guide provides an overview of the basic components and planning process involved in replicating the *Minding the Baby®* Home Visiting (MTB-HV) clinical model, including considerations for implementation and data collection requirements for evaluation and fidelity monitoring. It is to be used primarily by agency administrators when considering MTB-HV implementation and assessing program fit in a given community. It is **not** a manual for implementation, which cannot be entered into without a contractual agreement with the MTB National Office at Yale University. MTB-HV model replication can only be undertaken in tandem with required training and consultation provided through the MTB National Office. When such an agreement is entered into, Operations and Treatment Manuals are provided as part of implementation start-up. For questions about the model, training, or implementation process, please contact MTB Operations Director Crista Marchesseault at crista.marchesseault@yale.edu.

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PART ONE

Program & Replication Overview

Introduction

This planning guide was developed for funders, states, or agencies interested in implementing the *Minding the Baby®* Home Visiting (MTB-HV) intervention. It is intended for program administrators or potential sponsors when considering MTB-HV model replication and assessing program fit in a given community. It is **not** a manual for replication or implementation of the MTB-HV clinical model. MTB-HV implementation can only be undertaken in tandem with required training and consultation provided through the MTB National Office at Yale University. The MTB name is trademarked and may only be used with explicit permission, and model fidelity must be assured within programs using the MTB name. Once a contractual agreement is entered into, Operations and Treatment Manuals are provided as part of the initial training and implementation start-up.

MTB-HV Overview

The MTB-HV clinical model was developed in 2002 as a preventive, interdisciplinary, reflective home visiting intervention designed to strengthen the health and early relationships of young, first-time parents and families facing economic and social adversity. MTB-HV is the only home visiting intervention in the United States to offer marginalized first-time parents both physical and mental health services. The model's unique emphasis on reflective parenting has helped parents and babies develop robust, secure attachments during the critical first two years of life, through a multi-generational approach. MTB-HV supports early relationships and limits toxic stress, giving children and their parents the tools to overcome the adverse experiences that derail brain development, disrupt learning, and set the stage for a range of chronic health problems. By tipping the scales in favor of healthy growth and development, MTB-HV strengthens families, building a foundation for life-long health and wellbeing.

History: MTB-HV has been delivered to first-time young families in New Haven, Connecticut since 2002. The community-based program grew out of collaboration among the Yale School of Nursing, Yale Child Study Center, and two federally qualified health centers (FQHCs) located in under-resourced New Haven neighborhoods. Registered Nurses and master's level mental health practitioners (typically Licensed Clinical Social Workers in the U.S.) are paired to provide intensive, interdisciplinary in-home mental health and health care, parenting support, and anticipatory guidance to young, first-time parents and their infants. The first MTB Introductory Training Institute was offered in 2010, when a collaborative effort also began with the National Society for the Prevention of Cruelty to Children in the United Kingdom. This involved a replication of the MTB-HV clinical model and research program across 3 UK sites, in Glasgow, Sheffield, and York. This full-scale replication included an independently run randomized controlled trial (RCT) that concluded in October 2018.

After rigorous testing in the New Haven community and two federally funded randomized controlled trials (RCTs), MTB-HV was designated by the Department of Health and Human Services as an evidence-based home visiting model in 2014, one of approximately 20 models nationwide (see: https://homvee.acf.hhs.gov/). Following this designation, a small-scale replication began in Miami, Florida in 2015 through the Young Parents Project at Florida State University. In 2016, a replication began in Frederikshavn, Denmark. Supported by grants from the Donaghue and W.K. Kellogg Foundations, the MTB National Service Office (NSO) was also formed in 2016. MTB senior clinicians continued to serve families in New Haven while also providing an increasing amount of training and consultation. A new replication project supported by the Grossman Family Foundation began in July 2017 in Fairfield County, Connecticut, where 40 families were served in Norwalk and Stamford through December 2019, when funding came to an end. A new collaboration is now underway with Yale New Haven Hospital to offer MTB as part of the Family Home Visiting Partnership of New Haven, funded by the Connecticut Office of Early Childhood.

Goals: MTB-HV is a preventive intervention that explicitly addresses the complexities faced by families with high levels of early adversity and toxic stress, namely the cumulative effects of chronic poverty, lack of access to healthcare and other basic resources, and systemic racism. MTB-HV clinicians aim to help build a solid foundation for wellness and social-emotional competence from the ground up; to provide a level of support for positive health, attachment, and mental health outcomes that other less intensive home visiting interventions cannot; and to intervene before negative patterns become entrenched. Based on an interdisciplinary health and mental health approach that is unique among EBHV programs, highly trained practitioners address the health and mental health needs of both parent and child contemporaneously and coherently. The team works collaboratively to address families' multiple and individual needs. MTB-HV also specifically promotes reflective parenting, which has been linked to behavioral, attachment, and health outcomes. Because reflection can be particularly challenging for those who have faced trauma and toxic stress, MTB-HV clinicians promote reflection by limiting threat, supporting self-regulation, and developing safe and supportive relationships with parents that serve as models for parent-child relationships.

Results: A total of 237 New Haven families were recruited through prenatal providers at two local FQHCs into two separate RCTs beginning in 2002. Of these, 133 received MTB-HV, and 104 were enrolled in the control group. Participants in the control group received "treatment as usual" at the FQHC, along with intermittent newsletters mailed from MTB NSO staff. Health, mental health, developmental and relationship assessments were collected at baseline (pregnancy), and 4, 14, 18, and 24 months postpartum. The goal was to improve intervention group outcomes in all of these areas, relative to outcomes in control families. Comparisons with control families revealed impacts on a number of public health variables: lower rates of obesity and significantly higher rates of normal weight in MTB-HV toddlers, significantly higher rates of on-time pediatric immunization, lower rates of rapid subsequent childbearing, and lower rates of child protection referrals in MTB-HV families.

MTB-HV parents also became more reflective over the course of the intervention, and MTB-HV infants were significantly more likely to be securely attached and less likely to be disorganized than control group infants. Parent-child interactions were less disrupted in MTB-HV teen mothers. At 1-3 year follow-up, MTB-HV preschoolers had significantly lower rates of maternally reported externalizing (acting out) behaviors. In a longer-term follow-up study, preliminary analysis of data from MTB-HV families with 4-9-year-old children suggests that MTB-HV parents are more supportive and more reflective, and that their children have fewer externalizing and total problem behaviors. Externalizing problems directly predict suspension and expulsion in preschool and elementary age children, which in turn are linked to both academic failure and later psychopathology. Evaluation data continue to be collected and analyzed on an on-going basis in the original New Haven program, as well as at replicating sites.

The Model: Young parents-to-be (largely teens in the U.S.) are recruited into the MTB-HV intervention in the second or early third trimester of pregnancy. They are visited weekly through the child's first birthday, then biweekly until the child is two. The nurse and mental health clinicians work collaboratively to engage three generations of family members (grandparents, parents, child). Service delivery is highly flexible and responsive to families' needs. The nurse focuses on prenatal, pediatric, and maternal health issues and provides education as well as direct care. The mental health clinician focuses on working therapeutically with the parent-infant dyad, and monitoring both infant and maternal mental health. The mental health clinician also provides case management, and links to critical services.

Both home visitors collaborate with families on areas of development, parenting and the parent-child relationship. MTB-HV effects change through relationships. Early interactions shape the basic architecture of the infant brain, and form the foundation for physical health, cognitive, and socioemotional development. They make it possible for children to have the skills to respond to life's inevitable challenges as they explore and learn through their daily interactions. By strengthening early parent-child relationships, MTB-HV clinicians aim to mitigate the disabling effects of toxic stress and promote positive health, mental health, development, life course, and attachment outcomes in babies and their families. The home visitors do this by forging trusting relationships with parents who often,

because of their own early trauma experiences, have not been able to build solid relational foundations. Their relationships with the clinicians allow them to become "reflective" parents, more sensitive to their children's needs. This allows them to "hear" and respond to their babies in a new and fuller way, hence promoting the development of their young children's many skills and talents.

MTB-HV Adapted: In order to provide a more streamlined and less costly version of MTB-HV, the original 27-month model can be adapted to allow for less intensity in the child's second year. The "MTB-HV Adapted" model includes an intensive 15-month intervention (3 months prenatally and 12 months after the birth of the baby) that mirrors the first 15 months of the original model. Once the baby reaches 12 months of age, the intervention dose is decreased to two "booster session" home visits during the baby's second year. When the baby turns 18 months old and again at 24 months, the clinicians visit each family for a booster session to discuss parenting, safety, health, development, and child behaviors. As such, MTB-HV Adapted includes the same components as the original model in the prenatal phase and the first twelve months of the program. In addition to the two booster home visits at 18 and 24 months, electronic newsletters addressing physical health, social-emotional wellbeing, and child development topics, with age appropriate information about the child and helpful parenting advice, are sent to parents for months 13-17 and 19-23. Clinicians are also available by phone and/or text if needed throughout the child's second year.

Training & Replication

Training is available through the MTB NSO for organizations seeking either to implement (or supplement) similar reflective parenting programs, or to replicate the MTB-HV service delivery model (see: http://bit.ly/2xK32jd). These training offerings include a multi-day introductory training, which can stand alone or be supplemented either by a 6-phase replication program for full scale MTB-HV implementation or – for organizations with similar reflective parenting programs – serve as the basis for ongoing consultation and supervision. The MTB Introductory Training provides an introduction to the basic constructs and techniques of the MTB-HV reflective parenting model. It is aimed at preparing clinicians and other program staff to develop and implement interdisciplinary reflective parenting programs in their own unique communities. The training introduces a range of clinical approaches that are key to successful reflective parenting programs. These approaches, which are grounded in a range of theoretical perspectives, are derived from MTB-HV clinician experiences in the field. The introductory training is an important part of MTB-HV program replication, which consists of six sequential phases including technical assistance, training, and consultation through the MTB NSO, extending over at least a 36-month period. All six phases are required in order to implement and use the *Minding the Baby®* trademarked program name.

Phases of Replication: While the exact steps and process will vary from site to site and from one organization to another, there are six main phases to replication that are required for MTB-HV implementation.

Phase 1: Planning and Start-up Consultation. The purpose of this phase is to provide the support necessary to plan and organize the initial stages of MTB-HV implementation *prior to hiring and training*. This support can be provided on-site to local programs, and via phone and videoconference for other locations. This consultation is used to discuss program set-up, hiring, staff development and training, cultural factors, and community outreach. Consultation is provided by the model developers, senior MTB clinicians, and the MTB Operations Director, who provides input on a range of administrative and organizational matters.

Phase 2: Introductory Training. An intensive multi-day training modeled largely after the Introductory Training Institute described above is provided to address specific needs of MTB-HV model implementation and is delivered either at Yale or on-site for all clinical and administrative staff, with a preferred maximum enrollment of 30 participants. This is typically delivered over 3-4 days of training, and includes a review of evaluation measures, administrative forms, and the individual roles of each discipline. MTB NSO staff members are also available for individualized consultation throughout the initial training. Due to the COVID-19 pandemic, this training was delivered completely on-line via Zoom for the first time in April 2020.

Phase 3: On-going Clinical Consultation. Once the first families have been enrolled, all clinical staff involved in MTB-HV implementation begin regularly scheduled consultation sessions through the MTB NSO. These sessions are typically conducted via phone or videoconference, and continue through the first 27-month intervention cycle at minimum. This time is used to discuss cases, general program issues, and service delivery concerns. Typically, these take place in the form of Discipline Specific (DS) sessions, one for mental health staff and another for health/nursing staff, and Interdisciplinary (IDS) sessions for the full team. Each of these sessions typically take place 10 times per year, on a semi-monthly basis. Additional consultation time with the MTB Operations Director (and other MTB NSO staff, including the model developers as needed) is provided for program administrators. Once a full intervention cycle has been completed, ongoing consultation and technical assistance are provided as agreed.

Phase 4: On-going Supervisory Consultation. As phase 3 begins, families are enrolled, and implementation gets underway, MTB-HV nursing and mental health supervisors begin regularly scheduled consultation sessions with the MTB NSO. These sessions initially focus on the intended purpose of the sessions, the needs of the supervisors and their teams, implementation questions, and getting to know one another. Once cases are enrolled, topics vary from call to call based on the needs of the supervisors, and the format is flexible. These typically take place 6-10 times per year, based on the level of support needed at each site.

Phase 5: Distance Learning and Optional Train-the-Trainer Component. Within 3-6 months of the initial enrollment of families, quarterly 90-minute distance learning sessions are provided for all clinical and supervisory staff via video conference. Topics are determined based on the implementation phase and needs of the team. These sessions continue regularly, scheduled at a mutually convenient time approximately every three months through at least the first intervention cycle. During this phase of implementation, an optional train-the-trainer component may also begin, wherein qualified supervisors participate in a multi-day intensive training program through the MTB NSO on the Yale Campus, or equivalent number of in-service hours via distance learning sessions if necessary. This training includes a focus on team building skills, training lectures, attendance at MTB NSO meetings as appropriate, case discussion with experienced practitioners, and possible shadowing opportunities at home visits. The aim is to provide additional guidance in the MTB-HV model and to address specific supervisory issues and ongoing hiring/training needs. This is intended for up to 6 supervisors.

Phase 6: Site Monitoring and On-going Consultation. Approximately 10-15 months after the initial families are enrolled, two MTB NSO clinical consultants conduct a required site visit. The purpose and goals of this visit include presenting and discussing cases, providing information to the agency to help answer any questions or concerns, assessing implementation of the model (including a review of fidelity benchmarks and competencies as well as a discussion of gaps or needs), and addressing issues related to replication, including discussion of procedures and practices, and the required evaluation component. Specific goals and an agenda for the visit are developed in collaboration with site administration in advance of the site visit.

Training Logistics: Each replication phase requires a high level of collaborative coordination between the implementing agency and MTB NSO. During the first two phases, there is quite a bit of regular phone and/or video conference and e-mail contact between coordinators at each organization to plan for the training and on-going consultation. Regular, semi-weekly phone/video conference or in-person sessions begin in phase 3 for the clinicians and supervisors as part of the required on-going training and consultation hours. These sessions are scheduled on as consistent a basis as possible, typically via Zoom, a secure and HIPAA-compliant videoconference platform. See Appendix III for descriptions of each of the consultation sessions. Regular phone or video conference calls also continue between the site coordinator(s) at the implementing agency and the MTB NSO Operations Director to discuss administrative and logistical details, evaluation planning, and data management.

Funding & Sustainability: It is important to have a funding and sustainability plan prior to undertaking program implementation. This should include consideration of training and consultation costs. As part of the work of developing a funding and sustainability plan for the MTB NSO, a PowerPoint entitled *Making a Case for MTB-HV* was developed to aid in our fundraising efforts, along with a more recently developed informational webinar providing a detailed overview of MTB-HV implementation (see: https://vimeo.com/390787621) that also includes a brief animated video on the MTB Approach (see: https://vimeo.com/329826593). The PowerPoint files are available by request, along with an MTB-HV Executive Summary and MTB NSO Fact Sheet. These materials are intended to assist implementing agencies in outreach and fundraising efforts. Additional cost information and budgeting assistance is also available by request.

Each implementing agency, state, and/or country will have its own unique funding structure and set of challenges surrounding sustainability. Blended funding is typical of this sort of service delivery model, and in fact the original MTB-HV program in New Haven has relied on a combination of federal research grants and private foundation support over the years. Such blended or braided funding streams may include private foundation support; government/state funding; research grants; a fee for service structure; and in the United States, Medicaid reimbursement and/or state funds through the Maternal, Infant, and Early Childhood Home Visiting (MIECHV) Program. States and localities differ in terms of how they fund and support home visiting programs. Articulating the need for MTB-HV services is key in securing funding from a variety of sources.

Training Cost and Continuation: Individualized and replication training costs are determined via contract negotiation; these contracts are typically entered into for a minimum of a 12- to 36-month period. See Appendix IV for a price sheet indicating base costs for contracted training and consultation services. In some cases, training and consultation may be provided as part of a grant arrangement, but this is unusual.

As the first families enrolled in a replication program near graduation, assuming continuation funding has been secured, next steps are discussed with regard to consultation and technical assistance beyond the initial contract period(s). In many cases, a decrease in the regular consultation and supervision with the National Service Office is appropriate after the first 2-3 years, though this is determined on a site-by-site basis and may not be the best course of action if there has been clinician or supervisor attrition. If a decrease is agreed upon, a scaled back consultation plan is determined. This typically involves regular consultation sessions, "booster" distance learning sessions, and on-going fidelity and evaluation data submission.

Associated costs are negotiated based on the agreed level of training, consultation, and technical assistance provision. At minimum, an annual implementing agency fee will be applied, with agreement to participation in on-going fidelity monitoring and program evaluation requirements.

PART TWO

Planning & Start-Up

Essential Elements for MTB-HV Implementation

There are several core elements of the MTB-HV model that distinguish the preventive intervention from other home visiting programs. While there is some room for adaptation, it is essential that several key elements are part of implementation, in order for the program to be called *Minding the Baby®* and to ensure fidelity to the model as it was tested and originally shown to be efficacious in New Haven. These essential elements are listed in Appendix I. MTB-HV is a manualized and trademarked intervention, and fidelity to the model is key in achieving positive outcomes. Any adaptation requests must be discussed in depth with the model developers.

Implementation Considerations

There are a number of issues to consider prior to making the decision to implement MTB-HV and moving forward with program replication. This process should begin with a thorough review of the model for appropriateness to the agency, community, and client population. A complete checklist of tasks to complete prior to and throughout implementation is included in Appendix II. As the initial community-based tasks are undertaken, MTB National Service Office staff members are available to answer questions and discuss program fit. Some helpful questions to consider as these initial discussions begin include the following.

- Do the primary aims of the MTB-HV model and the general MTB approach align with the key values of your organization or agency?
- Are the program's essential elements doable within the context of your organization and population served?
- Are you likely to have access to the families who will be most well served by MTB-HV?
- Is there a referral system in place that will work well with MTB-HV recruitment?
- Are program outcomes in line with those that are a priority within your organization and community?
- Does your agency currently employ clinical and supervisory staff who meet MTB-HV requirements, and if not, is this workable within your agency context?
- Do you have the infrastructure and administrative capacity to administer and supervise MTB-HV?
- Are you able to budget fully to enable practitioners to deliver MTB-HV, including attending training, participating in on-going consultation, undertaking weekly home visits, and participating in related meetings; in addition to providing supervision for home visitors, and covering the costs of training and consultation?

Once the decision to proceed with implementation has been made, discussions begin with the MTB NSO with regard to timeline, costs, and contractual needs. It is imperative that hiring of staff does not take place until an agreement is in place and/or the model developers are consulted with regard to clinician and supervisor selection. Some important hiring considerations are included below.

Hiring Considerations: Based on a desire to match the advanced level of skills of the nurse with families' complex needs and issues, MTB-HV incorporates an experienced Registered Nurse (RN) or master's-prepared nurse practitioner (NP) or Advanced Practice Registered Nurse (APRN), preferably with pediatric or midwifery experience, into the health and nursing component of the home visiting intervention. MTB-HV has been delivered successfully by registered nurses (RNs) with additional training and experience in maternal-child nursing. Previous studies with researched samples indicate that parents with substantial mental health issues do not do as well in nurse-only home visitation programs, as their needs are overwhelming and often may make full participation in the nursing intervention nearly impossible (Ammerman, Putnam, Margolis, & Van Ginkel, 2009).

In addition, the difficulties faced by these families often preclude their ability to make use of the nursing aspects of the visit, as they are so preoccupied with their own difficulties that they cannot concentrate on the baby's most basic needs. In the original MTB-HV model tested in New Haven, a Licensed Clinical Social Worker (LCSW) provided

mental health services in the home, in tandem with an Advanced Practice Registered Nurse (APRN). MTB-HV has also been delivered successfully by masters' level mental health workers who are not specifically trained as LCSWs, or are in the process of obtaining their license.

Staff Roles: Depending on the size of the implementing agency and program replication, some of the recommended staff and support positions may be shared or overlapping. Full time or part time status depends on program size and funding. Sample job descriptions and required competencies for clinicians and supervisors are provided in the MTB-HV Operations Manual. Administrative roles may include a Program Coordinator/Director, a Program/Research Assistant, and/or an Administrative Assistant. Supervisory roles include at least one Mental Health Clinician and one Advanced Practice Registered Nurse (or professionals in these disciplines with an equivalent mix of credentials and experience). As described above, each home visiting team consists of a credentialed mental health clinician (in the United States, this is typically a Licensed Clinical Social Worker) and an experienced nurse or nurse practitioner. Both should have a proven ability to work collaboratively on a multidisciplinary team.

Caseloads

A full-time caseload for a single home visiting team typically builds up to approximately 22-24 families by the second year of implementation, resulting in around 10-12 home visits per week for each full-time clinician. A full caseload cannot be expected at the outset of implementation, and there are several important factors to consider during initial enrollment and on-going caseload management when determining caseload sizes. For example, home visits decrease in frequency to every other week during the second year of intervention, and – depending on the number of families enrolled and retained – this may lead to a larger number of families on a given caseload over time. Other factors may include long distances between homes, heavy traffic in certain urban areas, or other issues individual to certain geographic areas or agencies.

Program Eligibility & Recruitment Guidelines

Exact eligibility requirements and recruitment procedures vary depending on the implementing agency and collaborating health center(s), if applicable. In the original New Haven program at Yale University, MTB-HV was a voluntary and preventive intervention delivered primarily to young English-speaking families living in resource-constrained urban neighborhoods. Medically low-risk pregnant parents were eligible if they were between the ages of 14 and 25, expecting their first child, had no active serious drug use, and had no serious physical or psychotic illness. The nurse-midwives at the two collaborating community health clinics asked eligible parents in their 16th-20th week of pregnancy if they were interested in MTB-HV; they gave a brief informational flyer to those who expressed interest. These procedures vary from one implementing agency to another, and referral processes are determined collaboratively with the MTB NSO during the start-up phase of implementation.

Evaluation & Fidelity

MTB-HV implementing agencies are required to collect specific data for evaluation and fidelity purposes. The intervention outcomes assessed in the original New Haven program include a) maternal outcome variables including the quality of the parent-infant relationship, maternal reflective functioning (RF), maternal health and life course outcomes; and b) infant outcome variables including reported cases of child abuse or neglect (over 24 months), and infant health and development (over 24 months). Information on demographic and health variables is also collected, along with mental health information. Fidelity of intervention elements is also evaluated, including clinical approaches with young parents, intervention dosage, program attrition, and ongoing application of the existing training materials and treatment manual. Suggested and required evaluation measures are discussed as part of the start-up phase of replication, and a final Evaluation Plan is determined collaboratively with the MTB NSO.

PART THREE

Replication Process

The MTB-HV intervention proceeds in a series of phases, as does the training and consultation involved in replication, outlined in Part One. The first two phases of technical assistance (planning/start-up and the introductory training) occur prior to the first intervention phase, recruitment/consent and engagement/assessment. This is followed by six phases of the intervention proper: 1) prenatal phase, 2) delivery and postnatal phase, 3) first year phase, 4) transition phase, 5) second year phase, and 6) goodbye phase.

The third, fourth, and fifth training phases (on-going distance learning and consultation; supervisor training; and site visits) occur sequentially during the first year of implementation, in line with the first three phases of the intervention proper. The last phase of training occurs during the second-year phase of the intervention, during which regularly scheduled on-going consultation and distance learning also occur via phone and/or video conference, as agreed at the outset of implementation.

The table below illustrates the progression of phases of the replication process layered with the phases of the intervention proper, across a 30-36 month period (or approximately one replication cycle for an initial cohort of families). A sample implementation calendar integrating these phases follows below the table.

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<tr><td colspan="2">Planning & start-up consultation & training</td><td colspan="5">Ongoing distance learning & consultation including regular phone/video conference sessions (approximately 4 per month)</td></tr>
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Sample Implementation Calendar

Year One

January – March:	Planning and start-up consultation
April:	Introductory training with consultation
April – June:	On-going planning and start-up consultation
May:	Enrollment of first 5 families (start-up)
	Begin regular consultation sessions, for minimum of 27 months
September/October:	Begin quarterly distance learning
	Train the Trainer/Supervisor Training at Yale (Optional)

Year Two

Spring/Summer:	Site Visit

Intervention Phases

The initial intervention phase is focused on engagement and assessment and typically lasts about five visits, but may be extended if needed. When these visits have been completed, the intervention formally begins with the *Prenatal Phase*. During this time, participants are seen weekly, on alternate weeks by each of the home visitors. This schedule

continues through the *Delivery, Postnatal* and the *First Year Phases*. The *Transition Phase* begins several months before the baby turns one, when the clinicians assess the appropriateness of shifting a family to biweekly visits. During the *Second Year Phase,* families are visited once every other week, seeing the nurse and social worker each only once a month. Finally, during the *Goodbye Phase,* the goal is to graduate families just after the child's second birthday. Families are reminded of the impending goodbye at least four months before the last visit, so that they will have adequate time to say goodbye to each of the home visitors. Both home visitors come together for the last visit. More detailed descriptions of these phases are provided in the MTB-HV Operations Manual, while even more in-depth details and techniques used throughout these phases are provided in the Treatment Manual.

On-Going Training & Consultation

As outlined in Part One, on-going training, technical assistance, and consultation is required as part of MTB-HV implementation. This includes regular, scheduled sessions (typically via phone and/or video conference) with MTB NSO staff. Clinicians and supervisors should participate regularly in the various types of supervision and consultation sessions, as described in Appendix III.

Data Collection & Submission

As outlined briefly in Part Two, the evaluation research component is finalized as part of the replication start-up phase. Research data include descriptive family information as well as checklists and measures to assure treatment fidelity. Detailed descriptions of suggested and required evaluation and fidelity measures are provided in the Operations Manual. Data collection forms should be collected immediately following completion and stored in a locked file cabinet at a secure, central office location. Data can be submitted to the MTB NSO through a secure on-line data collection system, for which instructions are provided upon program start-up. A submission schedule will also be outlined upon mutual. An additional fee may apply for data analyses and/or reporting by the Yale team. This is discussed and negotiated on an individual agency basis.

Next Steps

Once the decision to proceed with implementation has been made, a realistic implementation timeline and budget is agreed upon with the MTB NSO. Contractual needs can then be pursued as applicable, and initial meetings/discussion with the model developers can begin to plan for hiring, evaluation, and implementation. The MTB-HV Operations Manual provides additional detail with regard to next steps, procedures, and requirements.

Appendices

APPENDIX I: ESSENTIAL ELEMENTS FOR MTB-HV IMPLEMENTATION

There are a number of MTB-HV model elements that make the intervention distinct from other home visiting programs. These must be part of implementation in order for the program to be called *Minding the Baby*® and to ensure fidelity to the model as it has been tested and demonstrated efficacy in New Haven. While certain adaptations and modifications may be necessary, especially to fit international contexts, the following core elements are essential to MTB-HV implementation.

Any *Minding the Baby*® program must include the following implementation and clinical elements.

Implementation Process

- Delivered by a master's level (or equivalent) interdisciplinary team including a mental health clinician and nurse home visitor trained explicitly in the MTB-HV model and working jointly to promote positive health, mental health, and parenting outcomes.
- Prioritize first-time parents and enroll families prenatally, ideally between 16 and 30 weeks, allowing time for essential relationship building.
- Deliver intensive services in the home with appropriate duration beginning during mid to late pregnancy, preferably late second trimester, including mental health care when needed.
- Screen potential participants for drug use and exclude those who are known to have a history of serious substance abuse due to the additional complex needs related to recovery and treatment, referring these families to a treatment-focused service alternative.
- Screen potential participants for involvement with child protective services and refer to an alternate program in cases where there is a plan for the unborn child to be removed at birth.
- Include an evaluation component with agreed upon data submitted to the MTB National Office at regular intervals.

Clinical Content

- Focus on the enhancement of health, mental health, parent-child relationships, attachment, child development, parenting support, and life course outcomes within young families.
- Liaison with families' Primary Care Providers to promote child and parental health and safety, providing mental health assessment and in-home therapeutic services when needed.
- Integrate reflective parenting into layers of direct care and supervision, with an aim to enhance parental capacities to reflect upon thoughts and feelings as a means to better understand and make sense of them.
- Work intergenerationally to promote nurturing and supportive relationships, as well as the development of secure attachment and regulatory capacities.
- Focus on the development of the clinician-parent relationship as the primary agent of change, working with families in partnership to promote shared decision-making with a non-judgmental stance and strengths-based perspective.
- Emphasize cultural awareness and respect for diverse family structures via diversity-informed practice.
- Focus on prevention via a trauma-informed approach, promoting the development of resources to buffer the impacts of trauma, adverse childhood experiences, and toxic stress on health and mental health.
- Utilize a flexible curriculum based on MTB-HV training, manuals, and the theories on which the model is based but matched to meet families' individual needs.
- Provide reflective supervision as described and defined in MTB-HV training; including supporting clinicians in maintaining a reflective stance, establishing a warm non-judgmental relationship with families, and promoting self-care.

APPENDIX II: REPLICATION PLANNING CHECKLIST

Prior to implementing MTB-HV program replication, the following tasks should be completed by the implementing agencies and/or MTB National Office staff.

Discussion phase (considerations prior to implementation)

- ☐ Review the MTB-HV model for appropriateness to agency, community, and client population
- ☐ Examine current programming in the community
- ☐ Conduct a needs assessment
- ☐ Talk to other providers in the community
- ☐ Talk to key staff in the agency to gauge acceptance of the key elements
- ☐ Decide if MTB-HV will be implemented by a single agency or collaborative across agencies
- ☐ Determine contractual needs and next steps with MTB National Office
- ☐ Prepare a budget and/or cost analysis

Once the decision to proceed with implementation has been made, the following steps are taken. Refer to the Implementation Start-Up Check List for next steps once teams are hired/trained.

Planning and start-up phase (first 3-6 months of replication process)

- ☐ Meet with MTB National Office staff to plan for next steps
- ☐ Develop and finalize job descriptions in collaboration with MTB National Office
- ☐ Pursue contractual needs with MTB National Office and/or other agencies
- ☐ Identify key staff, clinical and administrative, integral to collaborative efforts and schedule initial meetings to build or strengthen relationships and community buy-in
- ☐ Determine what evaluative research data will be collected and pursue Institutional Review Board (IRB) review and/or Yale Human Investigation Committee (HIC) approval
- ☐ Submit materials to IRB(s) as needed/required
- ☐ Assess current and needed resources for staffing, supervision, and other operational needs; develop a plan to cover or acquire needed resources
- ☐ If the program will involve collaboration with another agency, set up initial and/or regular meetings and introduce systems that will keep all partners informed
- ☐ Develop procedures and guidelines for eligibility, recruitment, intake, treatment, tracking, retention, discharge, staffing caseloads, supervision, etc. (revisit in training & internally)
- ☐ Post job descriptions; interview and hire staff in consultation with MTB National Office
- ☐ Plan for and schedule initial training with MTB National Office staff (typically over 4 days)
- ☐ Review and discuss evaluative research measures; provide training and/or time to complete on-line HRPP and HIPAA training as needed
- ☐ Add project description and/or study personnel to Yale HIC protocol(s) as needed
- ☐ Plan for logistics/technology needs and schedule on-going training and consultation calls with MTB National Office
- ☐ Develop promotional materials for clients and/or referring agencies; submit to IRB if applicable
- ☐ Provide time for newly hired clinicians and supervisors to review competencies; once self assessment is complete, meet with supervisor(s) to plan for additional time and resources for training in identified gaps

APPENDIX III: ON-GOING CONSULTATION & TRAINING COMPONENTS

Descriptions of the ongoing training and consultation required for MTB-HV replication (beyond the initial introductory training) are provided below. Consultation and training sessions are scheduled regularly following the introductory training and initial enrollment of families.

Ongoing Consultation Sessions*

Three types of regular consultation sessions (typically equating up to a total of four per month for ten months of the year; two for clinicians and two for supervisors) are required as part of MTB-HV replication. Descriptions of each session type follow. Regular sessions, typically via phone or video conference call, also continue between the site coordinator(s) at the implementing agency and the MTB National Office to discuss administrative and logistical details, evaluation planning, and data management.

Interdisciplinary (IDS) Sessions: A joint session for all clinicians and supervisors involved with MTB-HV replication with one or two MTB National Office clinical consultants from each discipline. These sessions initially focus on implementation questions and getting to know one another. Once cases are enrolled, these meetings often focus on case review following a specified format, with clinicians presenting and discussing a case. Some IDS sessions are more informal, involving a joint clinical discussion or conversation or addressing an interdisciplinary issue surrounding service delivery. When formal case presentations are provided, one case is presented per session, and a brief written case summary is often provided by the implementing agency the week before the scheduled session.

Discipline Specific (DS) Sessions: Individual sessions for the clinicians in each discipline (Mental Health and Nursing) involved with the MTB replication with one MTB National Office clinical consultant each, in the relevant discipline. These sessions initially focus on the intended purpose of the sessions, the needs of the replicating clinicians, implementation questions, and getting to know one another. Once cases are enrolled, topics vary based on the needs of the clinicians and the format is flexible. In general, they often begin with greetings and a moment of pause to reflect on the work, followed by a check-in to identify pressing concerns, processing and discussion, and recommendations for the next session.

Supervisory Sessions: A joint session for the supervisors (in both disciplines) involved with the MTB replication with one or two MTB National Office clinical consultants from each discipline. These sessions initially focus on the intended purpose of the sessions, the needs of the supervisors and their teams, implementation questions, and getting to know one another. Once cases are enrolled, topics vary from session to session based on the needs of the supervisors, and the format is flexible, typically focusing on topics such as the needs of the supervisors and their teams, implementation questions, issues surrounding staff turnover, evaluation data, and fidelity.

Note: in general, the semi-monthly rotation begins with IDS, then DS, followed by Supervisory sessions, rearranged as needed. The initial sessions often involve the full MTB National Office clinical consultation team in order for everyone to get to know one another and agree upon the format for future sessions; then a rotation is put in place so that there is a single participant from the MTB National Office participating in most subsequent sessions.

Distance Training and Optional Train-the-Trainer Component

Distance Learning & Training Sessions: The local clinical team and their supervisors meet for 90 minutes via videoconference with two MTB National Office staff members (one nurse and one mental health clinician) to address a professional development or extension training topic.

Train-the-Trainer Component: For an additional training fee, qualified experts in the fields of Health/Nursing and Mental Health can be trained as MTB trainers and supervisors by MTB National Office staff during the first years of implementation. These experts must have teaching and/or training experience, and meet the requirements listed in the MTB Supervisor Competencies (included in the MTB Replication Operations Manual For Implementing Agencies). MTB trainer teams receive specialized train-the-trainer intensive training with MTB National Office staff including on-going consultation video calls with MTB National Office trainers and a multi-day train-the-trainer intensive training with MTB National Office staff in New Haven, Connecticut at an agreed upon time after the initial introductory training.

APPENDIX IV: TRAINING & CONSULTATION PRICE SHEET

Current base costs associated with MTB National Office training and consultation are provided below. All costs may be subject to a 3% annual increase. DVD and webinar fees are payable via credit card, while the costs for individualized group training, as well as the training and consultation required for MTB-HV implementation, are negotiated via contractual agreement through Yale University. These costs do not include any travel or accommodation costs that may be part of future in-person training and consultation.

Parental Reflective Functioning DVD

- A limited number are available for mail order within the continental U.S.
- Cost: $125 per DVD, plus shipping and handling

Training Webinars

- Topics and fees announced on an on-going basis
- Cost: US$40-$200 per person depending on length and topic

Individualized Group Training and Consultation

- Topics and dates are determined with the agency or organization
- Cost: US$250-$2,500 depending on length, topic, and group size; as agreed via contractual agreement and subject to an additional 18% assessment fee by Yale

Full Scale Replication Program

- Timeline: minimum of a 36-month period covering 6 required phases
- Materials: electronic versions of all copyrighted training materials, to be printed by site and including licensed use of the trademarked program name and intellectual property
- Cost: the base price for the initial 36-month period including all 6 required phases and materials (not including optional train-the-trainer component) is approximately US$55,500 for up to 2 clinical teams and 4 supervisors; subsequent annual fees range US$9,000-$13,000 per year
    - This includes use of Zoom phone and video conference technology through Yale.
    - This does *not* include printing, food, travel, and lodging costs for trainings or other meetings that occur at the host organization's location, nor does it include any data analyses of evaluation data collected and submitted to the MTB National Office; the final amount is negotiated via contract and subject to an additional 18% assessment fee by Yale.
    - A detailed breakdown of fees with start-up worksheet is available upon request.
    - Provided that the implementation progresses smoothly, there is adequate retention of trainers/supervisors, and monitoring of fidelity indicates adherence to the essential elements of the evidence-based model, continuation beyond the first 3 years of clinical implementation involves a substantially lower level of support and consultation, with annual fees starting at a base cost of US$9,000 per centralized implementing entity. This includes participation in an annual meeting, team consultation three times per year for quality insurance, use of Zoom phone and video conferencing, access to electronic training materials and updates, use of trademarked program name, branding, & logo, and fidelity monitoring.

For more information or to schedule training, please contact Crista Marchesseault, MTB Operations Director, at crista.marchesseault@yale.edu.

REFERENCES

Ammerman, R.T., Putnam, F.W., Margolis, P.A., & Van Ginkel, J.B. (2009). *Quality improvement in child abuse prevention programs*. In K.A. Dodge & D.L. Coleman (Eds.), Preventing child maltreatment: Community approaches (pp. 121-138). New York: Guilford.

Brooten, D., Youngblut, J., Deatrick, J., Naylor, M., & York, R. (2003) Patient problems, advanced practice nursing (APN) interventions, time, and contacts among five patient groups. *Journal of Nursing Scholarship, 35*, 73-79.

Londono Tobon, A., Condon, E., Holland, M., Slade, A., Mayes, L. C., & Sadler, L. (2018). Lasting Effects of *Minding the Baby*® Home Visiting Program for Young Families. *Journal of the American Academy of Child & Adolescent Psychiatry*, *57*(10), S159.

Olds, D. (2002) Prenatal and infancy home visiting by nurses: From randomized trials to community replication. *Prevention Science, 3,* 153-172.

Ordway, M., Sadler, L. S., Holland, M., Slade, A., Close, N., Mayes, L. (2018). A Home Visiting Parenting Program and Child Obesity: A Randomized Trial. *Pediatrics, 141(2)*; e20171076.

Ordway, M., Sadler, L., Slade, A., Close, N., Dixon, J., & Mayes, L (2014). Lasting Effects of an Interdisciplinary Home Visiting Program on Child Behavior: Preliminary Follow-up Results of a Randomized Trial. *Journal of Pediatric Nursing, 29(1)*.

Sadler, L.S., Slade, A., Close, N., Webb, D.L., Simpson, T., Fennie, K., & Mayes, L.C. (2013). *Minding the Baby®*: Improving Early Health and Relationship Outcomes in Vulnerable Young Families in an Interdisciplinary Reflective Parenting Home Visiting Program. *Infant Mental Health Journal, 34(5),* 391-405.

Slade, A, Holland, M.L., Ordway, M.R., Carlson, E.A., Jeon, S., Close, N., Mayes, L.C., & Sadler, L.S. (2019). Minding the Baby®: Enhancing Parental Reflective Functioning and Infant Attachment in an Attachment-based, Interdisciplinary Home Visiting Program. *Development and Psychopathology,* 1-15.