



The Baby TALK – RefugeeOne Study: A randomized controlled trial examining home visiting services with refugees and immigrants.

Comprehensive Report, January 2018

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TABLE OF CONTENTS

EXECUTIVE SUMMARY.....	vii
SECTION 1: INTRODUCTION	
1.1 Motivation for the study	1
1.2 Project description and expected outcomes.....	1
1.3 Brief review of the literature.....	2
1.4 Research questions	6
1.5 Research hypotheses.....	7
SECTION 2: STUDY CHARACTERISTICS	
A. Intervention Condition.....	8
A.1. Baby TALK Model: General Overview	
A.2. Intervention Condition: Baby TALK Home Visiting Components	
A.3. Training and Implementation Materials	
A.4. Actual Implementation Information for the Study	
B. Control Condition.....	16
C. Setting	16
D. Participants.....	17
E. Funding Source and Author Affiliation.....	23
SECTION 3: STUDY DESIGN AND ANALYSIS	
A. Sample Formation.....	25
B. Measures.....	25
C. Analytic Approach.....	28
D. Statistical Adjustments.....	29
E. Attrition and Missing Data.....	29
SECTION 4: STUDY DATA	
A. Pre-Intervention Data, Baseline Sample	32

B. Pre-Intervention Data, Analysis Sample.....	32
C. Post-Intervention Data and Findings.....	33
D. Additional Analysis.....	36
SECTION 5: DISCUSSION.....	38
SECTION 6: REFERENCES.....	44

LIST OF TABLES

Table 1. General Sample Characteristics.....	17
Table 2. Main Ethnic Grouping by Assignment.....	18
Table 3. Immigration Status by Assignment.....	19
Table 4. Years Displaced Prior to Resettlement in U.S./Chicago by Assignment.....	19
Table 5. Maternal Education Level by Assignment.....	19
Table 6. English-language Learners by Assignment.....	20
Table 7. Marital Status by Assignment.....	20
Table 8. Public Benefit Recipient by Assignment.....	21
Table 9. Racial/Ethnic Composition of the Sample at Baseline.....	21
Table 10. Participant Characteristics by Assignment: Baseline.....	22
Table 11. Participant Characteristics by Assignment: Analytical Sample.....	22
Table 12. Baseline Outcome Measures for the Full Sample (N=200).....	23
Table 13. Baseline Outcome Measures for the Analytic Sample (N=167).....	23
Table 14. Baby TALK RefugeeOne RCT Measures Overview.....	26
Table 15. Changes in Sample from Baseline to 12-Month.....	29
Table 16. Characteristics of the Analytic Sample that Remained at 12-Month.....	30
Table 17. Sample Sizes at Baseline for the Outcome Measures.....	32
Table 18. Outcome Measures Taken at Baseline for the Analytic Sample.....	32
Table 19. Sample Sizes at 12-Month for the Outcome Measures.....	33
Table 20. Outcome Measures and Unadjusted Effect Sizes at 12-Month.....	33
Table 21. Statistical Results from OLS Regression: ASQ SE Total.....	35
Table 22. Statistical Results from OLS Regression: PLS Total Language Standard Score.....	35
Table 23. Statistical Results from OLS Regression: PSI Total Stress T Score.....	35

Table 24. Statistical Results from OLS Regression: RHS Total.....	36
Table 25. Within Group Pre-Post Changes.....	36

APPENDIX: SUPPORTING DOCUMENTS

Appendix A: Measure 5 and 6 Demographic Form.....	69
Appendix B: Measure 7 Personal Encounter Documentation Form.....	70
Appendix C1-C3: Sample Baby TALK Curriculum	73
Appendix D: Baby TALK Training Agenda.....	75
Appendix E: Baby TALK Professional Support Services.....	83

EXECUTIVE SUMMARY

The Baby TALK - RefugeeOne Randomized Controlled Trial Examining Home Visiting Services with Refugees and Immigrants used a randomized controlled trial (RCT) to test the impact of the Baby TALK Home Visiting Program Model on child and maternal outcomes among refugee and immigrant participants. This final report includes a summary of the study's research questions, research design, procedures for data collection and randomization, description of final study sample, measures, data analyses plan, findings, and summary and consideration for future research.

This research study's sample of 200 parents, of either refugee or undocumented immigrant status, with children between ages 3 and 36 months were recruited from the RefugeeOne Wellness Program in Chicago, Illinois. From this sample, 101 parents were randomly assigned to the treatment group and received Baby TALK home visiting services, and 99 parents were randomly assigned to the control group and did not receive home visiting services. Although this study mainly aimed to test for the impacts on parent and child outcomes using the Baby TALK Home Visiting Program Model, the study also examined the impact of home visiting on economic self-sufficiency, improvements in coordination and access to linkages and referrals to community resources, and changes in positive parenting strategies understood to enhance child and family well-being.

RESEARCH QUESTIONS

The study was designed specifically to answer the following research questions:

Research Question 1: What was the impact of Baby TALK Home Visiting Program Model between randomly assigned treatment and control groups on the following outcomes?

- a. Child's social-emotional development (as measured by Ages and Stages Questionnaire, Social Emotional, ASQ: SE2)
- b. Child's language development (as measured by Preschool Language Scales, PLS-5)
- c. Parental Stress Level (as measured by Parenting Stress Index, Fourth Edition, Short Form, PSI-4-SF)
- d. Parental Trauma Symptoms (as measured by Refugee Health Screener-15, RHS-15)
- e. Economic Self-Sufficiency (as measured by study-developed questionnaire)
- f. Referral Coordination (as measured by study-developed questionnaire)

In addition, the study had the following research question regarding positive parenting practices:

Research Question 2: What was the change in positive parenting practices (as measured by Baby TALK Home Visiting Personal Encounter Documentation Form) within the treatment group between baseline and 12-months after baseline?

RESEARCH HYPOTHESES

The study tested the following two hypotheses specifically with regard to the parental and child outcomes. These two hypotheses reflect how the Baby TALK Home Visiting intervention might specifically address the parent and child outcomes:

1. Families who experience the Baby TALK Home Visiting intervention have parents with lower levels of stress and lower trauma symptoms than families who do not receive the intervention.
2. Children who experience the Baby TALK Home Visiting intervention have more positive language and social emotional developmental outcomes as compared to families who do not receive the intervention.

KEY FINDINGS

The following key findings show the impact of the Baby TALK Home Visiting Program Model (herein Baby TALK) on parent and child outcomes comparing control and treatment groups at 12 months. Since baseline equivalence was established between the treatment group and the control group, standardized differences between the two groups were determined and these effect sizes show the magnitude of the impact of Baby TALK. The full discussion is provided in *Section 5. Discussion*.

Baby TALK has a statistically significant ($p=0.00$) impact on social-emotional development (child outcome).

- The effect size for social-emotional development as measured by ASQ-SE2 Total was found to be -0.17, indicating that the treatment children were doing better than the control children in terms of social-emotional competency at 12-month. The difference was not statistically significant ($p = .27$), which could be explained by the lack of power thus a within-group analysis was conducted allowing for more power than a direct treatment-and-control comparison. The result was outcomes that became significant.
- When pre-post within-group gains between the treatment and control groups were analyzed, the treatment group made significant gains ($p=0.00$) while the control group's gains were not ($p=0.05$). The two groups started off with baseline equivalence on this measure, making this a rigorous and valid comparison with statistical significance.

Baby TALK has a statistically significant ($p=0.02$) impact on language development (child outcomes).

- The effect size for language development as measured by PLS-5 Total Language Standard Score was found to be 0.37, which is statistically significant ($p = .02$) even after using Bonferroni adjustment to correct for multiple child domain comparisons.

- According to Cohen's (1988) interpretation of effect sizes, this effect size of 0.37 would be considered a small to medium effect size. That is, the 50th percentile of the treatment group would be at the 66th percentile of the control group in terms of their PLS-5 Total Language Standard Score at 12-month. Respectively, the results show both significant and valid gains in this domain.

Baby TALK has an impact on parental stress (maternal health).

- The effect size for parental stress as measured by PSI-4-SF Total Stress T score was found to be -0.12, indicating that the treatment parents were experiencing less stress than the control parents at 12-month. Since the difference was not statistically significant ($p = .44$) and was still not significant even after controlling for baseline, a within-group analysis was also conducted in this measure to allow for more power than a direct treatment-and-control comparison while giving us a better understanding of stress-level change.
- The within-group analysis results showed that both the treatment and the control groups improved significantly on their stress level ($p=0.00$). Together, the PSI-4-SF Total Stress T score and within-group analysis results suggest that treatment parents receiving the intervention were not only experiencing less stress, but their symptoms also improved significantly at 12-months after baseline data collection as compared to control parents.

Baby TALK has an impact on parental trauma symptoms (maternal health).

- The effect size for parental trauma symptoms as measured by RHS Total was found to be 0.23, indicating that the treatment parents might still be exhibiting more trauma symptoms than control parents though this difference is not statistically significant ($p=0.14$).
- Once we controlled for baseline in a regression analysis, however, the treatment parents showed they were lower on the trauma symptoms than the control parents. Thus, it seemed that the treatment group might be coping better as a result of the intervention once we consider their baseline in trauma stress. While we did not detect a significant difference, the findings on lower symptom levels and better coping levels among treatment parents is worth noting given this is one of the few home visiting studies to specifically examine trauma symptoms among refugee and immigrant populations.

Baby TALK has an impact on access to linkages and referrals.

- Examining improvements to community linkages and referrals was measured by reviewing the total referral needs of participants documented through a developed questionnaire for the study. The effect size was found to be 0.22, indicating that treatment parents were more proactive in asking for help and having their needs addressed compared to control parents although this difference was not statistically significant ($p = 0.16$).

Baby TALK has an impact on economic self-sufficiency.

- Examining improvements in family economic self-sufficiency was measured by the data on employment status within the family – full-time, part-time or unemployed. The percent of treatment families with a full-time or a part-time job was 99% (82 out of 83) compared to 95% (77 out of 81) for the control families at outcomes.
- All except one of the treatment families had a job suggesting potentially higher levels of economic stability among treatment families who had access to more supports through the Baby TALK Home Visiting intervention. Though this percent is higher than the control families and not statistically significant, it is a finding worth noting.

Preliminary evidence shows Baby TALK has an impact on positive parenting practices.

- Examining improvements in parenting skills or positive parenting practices was measured using the *Baby TALK Personal Encounter Documentation* form completed after each home visit with the treatment group who received the Baby TALK Home Visiting intervention. The change in positive parenting practices was examined between baseline scores and at 12-months. A within-group analysis showed that the treatment group increased significantly in the number of positive parenting practices (*e.g.*, increased child engagement, communication, eye contact), as measured by the number of positive parent-child interactions observed during home visit ($p=0.00$).

Overall, there were significant findings in child outcomes, which is one of the main domains that the Baby TALK Home Visiting Program Model targets for intervention. In particular, there was a significant effect size for language development while there was a significant gain in socio-emotional development. In addition, all the other effect sizes in the maternal health, referral, and economic self-sufficiency domains were in the desired direction. Preliminary evidence also showed a significant improvement in positive parenting practices for the treatment group. The lack of significance in the effect size estimation could be due to the small sample size for this study, thus a within-group analysis was conducted allowing for more power than a direct treatment-and-control comparison to confirm significance when appropriate. Overall, the findings establish evidence of effectiveness as well as inform future research on the Baby TALK Home Visiting Program Model with different populations and larger sample sizes that could yield more significant findings.

I. INTRODUCTION

MOTIVATION FOR THE STUDY

The early years matter. We now have a better understanding of the ways in which experiences and relationships in early childhood are directly tied to developmental and mental health outcomes for children and parents. The implications of those early experiences are far reaching, as both positive and negative effects can be observed through adulthood. The purpose of this report is to examine the Baby TALK Model, a community-based early intervention model used to support developmental and mental health outcomes for young children and their parents/caregivers, and its Home Visiting Program Model that guides delivery of home visiting services.

The Baby TALK Model has been implemented in 32 states since 1986 with over 1,200 Baby TALK-trained professionals supporting families across the country. Since 2005, the Illinois State Board of Education has designated the Baby TALK Model as one of its approved evidence-based models for use with children ages birth-to-three years, as it meets the early intervention service requirements listed in the Illinois School Code (105 ILCS 5/2-3.89), specifically with its Home Visiting Program Model which is at the center of this study. Additionally, the Baby TALK, Inc. and the Baby TALK Home Visiting Program Model have also been widely supported by local, state and national leaders who have shown support for the long history and value of the Baby TALK Model in combating the potentially harmful problems that can impact families with substantial risk factors, specifically those of refugee or undocumented immigrant status.

This report briefly reviews the literature on home visiting practices that have been implemented with young children and their families, and explains its relevance for trauma-exposed refugee and immigrant populations. This review is followed by a detailed overview of the Baby TALK Home Visiting Program Model and the findings of one randomized controlled trial that was completed in the last year, currently being submitted to the Home Visiting Evidence of Effectiveness (HomVee) Review. The final section summarizes the lessons learned from the study and addresses the valuable potential behind the Baby TALK Model's innovative framework for identifying and serving children and families of refugee or undocumented immigrant status.

PROJECT DESCRIPTION AND EXPECTED OUTCOMES

The Baby TALK - RefugeeOne Randomized Controlled Trial (RCT) Examining Home Visiting Services with Refugees and Immigrants was designed to rigorously examine the differences in outcomes across parental stress, parent trauma symptoms, child language development, and child social-emotional development based on whether or not families received Baby TALK Home Visiting services. The aim of this study was to provide rigorous evidence of the positive parental and child outcomes associated with Baby TALK's Home Visiting intervention. This was done through randomly assigning families to home visitation (treatment/intervention condition) or no services (control/comparison condition). Our study screened for risk factors that parallel studies currently conducted by Maternal Infant Early Childhood Home Visiting (MIECHV) and the

Mother and Infant Home Visiting Program Evaluation (MIHOPE). The risk factors include the following: low-income, young mother, single parent, low social support, parent with physical or mental health needs, history of domestic violence, history of substance abuse, child with special needs/disability, and adult with disability. The study also specifically targeted families of refugee and undocumented immigrant status, as this is a growing dimension of risk among the general population and the study heeds the growing call around culturally-sensitive approaches to working with immigrant and refugee families. This rigorous randomized study sets the foundation for performing larger-scale and more refined randomized studies that take into account lessons learned. An overview of the study is provided in ***Section III. Study Design and Analysis.***

BRIEF REVIEW OF THE LITERATURE

Home Visiting Overview. Documentation of home visiting programs can be found as early as the 1880s (Charity Organization Society, 1883) and it continues to play a key role in early childhood intervention systems today (Duggan et al., 2013). Although home visiting has been used across disciplines to reach individuals from pregnancy to old age (Howard & Brooks-Gunn, 2009), early intervention and early childhood literature has focused on the delivery of service to pregnant women and families with children birth through school age (Avellar and Supplee, 2013). According to Sweet & Appelbaum (2004), “home visiting programs are linked by their method of service delivery, their goal of helping children by helping the parents of those children, and their focus on younger children” (p. 1435).

There is a belief that home visiting programs have a prevention element; prevention from poor child outcomes (Peterson, Luze, Eshbaugh, Jeon, & Kants, 2007), reliance on public assistance (Sweet & Appelbaum, 2004), birth outcomes (Issel, Forrestal, Slaughter, Wiencrot, & Handler, 2011), breastfeeding (McInnes & Stone, 2001), immunization rates (Koniak-Griffin, et al., 2002), positive maternal behaviors (Nievar & Van Egeren, 2005), and lead levels (Brown, McLaine, Dixon & Simon, 2006). Home visiting has also been tied to improved families’ health care usage, and improvements in the areas of child well-being, including cognitive development and reduction in child maltreatment (Avellar & Supplee, 2013).

Effective home visiting programs often share common characteristics related to theory of change (Harden, 2010), dosage, service protocols and materials, and the relationship between home visitor and family (Paulsell, Boller, Hallgren, & Exposito, 2010). To begin, each model needs to have a theory of how change is conceptualized with families which shapes the mechanisms by which a program model can achieve and track program goals for the parent, child, and home visitor (Harden, 2010). According to the National Human Service Assembly (2007), high-quality home visiting programs must also maintain a high level of engagement (*i.e.*, once a week for 3 to 6 months to yield benefits with a service period of two years as optimal). Others have found that targeted exposure, even though the dosage (*i.e.*, duration of services) varied could also yield benefits (Depanfilis & Dubowitz, 2005). As for the service protocols and materials, home visiting models typically provide a structure for information sharing that addresses child health and development and parenting competence, often through parent-child activities and linkages to other services (Avellar & Supplee, 2013). Most models also have a mechanism for recording the visits and storing participant information to track outcomes.

The parent-professional relationship is particularly important in home visiting programs. The literature suggests a professional's approach to engaging families and the relationship between parent and home visitor appears to be even more important than the specific home visiting model (Sweet & Appelbaum, 2004). Families are more engaged when the home visitor is able to develop a positive helping relationship with the family (Korfmacher, Green, Spellman & Thornburg, 2007). This positive relationship is often successfully developed when home visitors have personal characteristics such as strong listening, observation, organization, probing, interpretation, and prompting skills (National Commission on Infant Mortality, 1989) as well as conscientiousness and persistence with families (Brooks, Summers, Thornburg, Ispa & Lane, 2006). Home visitors must also be trained, monitored and supported, particularly when working with psychologically vulnerable families; the visitor must have the knowledge and skills of knowing how to support the physical and mental health of both parent and child (Jones Harden, 2010). And finally, a successful home visitor is one who understands that parenting practices are bound to culture, so there needs to be both respect and understanding for the cultural undertones that come with parenting (Gomby, 2005).

Today's home visiting programs have evolved to be more client-centered, emphasizing culturally appropriate interventions, and bringing attention to a person-in-environment framework (Bader, 1998). Across 40 U.S. states, it is estimated that 400,000 and 500,000 children and their families receive home visits each year (Astuto & Allen, 2009). Although home visiting programs today have similar goals and objectives reflecting the importance of advocacy and community collaboration (Roibal, 2016), there are different home visiting models that have different strengths offering a range of possibilities to meet specific needs (Astuto & Allen, 2009). With the evolving changes of home visiting programs, the services have enabled workers to reach families with greater flexibility and provide parent-child interactions and learning information (Astuto & Allen, 2009). The changes have also accounted for the greater cultural diversity we are seeing in families needing home visiting programs.

Home Visiting Research. The long history of home visiting, particularly in early childhood systems, comes with a history of research efforts to validate the promise of positive outcomes tied to the services and the specific home visiting models employed with families. Aggressive research efforts have been conducted locally and nationally to build empirical evidence around home visiting impact and the best practices that support mental health outcomes for participants. The findings of the research are not conclusive, however, and there is still much to learn from the field. We understand that home visiting programs cannot be considered the "cure-all" (Mercy & Saul, 2009), that available studies suggest there must be collaboration with other programs including pediatricians (Avellar & Supellee, 2013) and other service and agency providers to provide wrap-around services (LPC Consulting Associates, 2007). We do, however, know there is substantial empirical evidence suggesting home visitation can promote positive health and mental health gains for children and parents. There are qualities of the home visitor and a framework for home visiting models that lead to successful outcomes; specifically, promising outcomes are tied to home visitors who have professional qualities that support engagement and program models that have a dosage of services, training and support to staff, and collaborative linkages with other programs in support of the family.

Current research in the early childhood field is increasingly discussing the importance of relational interventions with families. A relationship as a core approach to the intervention is believed to be important because families are able to engage in the intervention, are more open, and feel respected and supported (Hsieh & Bean, 2014). Some suggest that building a collaborative relationship happens through effective communication and it is seen particularly impactful in engaging ethnically diverse families (King, Desmarais, Lindsay, Pierart, & Tetreault, 2015).

Effective communication comes, in part, in the form of empathic verbal and nonverbal strategies that consider a person's culture, level of engagement and familiarity in working with members outside of her community. Effective communication is also evident in professionals who practice self-reflection, as it allows the professional to reflect on possible biases and differences in cultural values and beliefs (Hsieh & Bean, 2014; Tan, 2011) that can directly combat unintended assumptions that may impede relationship-building (King, Desmarais, Lindsay, Pierart, & Tetreault, 2015). Consequently, relational approaches are directly tied to effective communication, cultural awareness, and self-reflective practice. These are all necessary elements of best practices with ethnically diverse populations.

Unique Risk Among Refugee and Immigrant Families with Young Children. While there are many families considered as vulnerable or at-risk for poor child and parent/family outcomes, recent events have highlighted the unique needs of refugees and immigrants who are fleeing their home country as a result of regional conflicts, climate change, lack of access to basic resources such as healthcare, education, and employment, and the hope of greater opportunities elsewhere. There has been a surge in migration patterns across the globe with greater discussion around the needs of refugee and immigrant populations, particularly those resettled in our country. Many refugee and immigrant families face many challenges and are exposed to violent and traumatic events in their home countries that greatly impact their mental and physical health (Hart, 2009; McMullen et al., 2013). While many who resettle in the United States are hopeful for new opportunities, there are many challenges that they face including adverse effects on trauma-exposed children who may experience emotional and behavioral difficulties in school and within their families (Goldfinch, 2009; Marans, 2013; Montgomery, 2011; Niaz, 2015). It is not the only experience from their home countries that impacts children and their families, but also the changes and having to adapt to a different environment (Hart, 2009; McMullen et al., 2013; Montgomery, 2011). Parents might try to hide what is going on from children with the goal of protecting them, yet that limits the opportunities children have to talk about what they are feeling and ask about what is happening (Hart, 2009). Additionally, parents own traumatic experiences (and the resultant mental and physical health implications) may also affect the child; in some cases, parents may not be able to adequately be attentive to the needs of their children (Montgomery, 2011; Van Ee, Kleber, & Mooren, 2012).

Additionally, many of the children that have experienced a traumatic event are at a very high risk of developing Post-Traumatic Stress Disorder (PTSD) (Hart, 2009; Niaz, 2015), and have often been misdiagnosed with other disorders (Hart, 2009). Then, if there is misdiagnosis, symptoms are unrecognized or untreated, there can be a significant increase in PTSD, depressive and anxiety disorders, personality disorders, alcohol and drug abuse, and many more risks (Marans, 2013). Children who experience trauma can be highly impacted by their ability to function

effectively in school and in their social life (Dyregrov, 2004 as cited in Hart, 2009; Marans, 2013). Children's early exposure to trauma or untreated trauma can have long-lasting effects in their physical, social, and emotional development as studies have shown that there can be an impact on brain function and development over the lifespan (Hart, 2009; Niaz, 2015). Consequently, there is a great need for culturally-sensitive interventions that are both accessible to new arrivals who may not be familiar with resources in the U.S. and the critical information early intervention can provide to ethnically and linguistically diverse refugee and immigrant families.

Examining the Impact of Home Visiting on Refugee and Immigrant Families.

Although there is great support for the need of interventions to help immigrants and refugees who are in psychological distress and have been affected by war, there is very limited research on the impact of home visiting on these families (Knox, 1996; Willimson, Knox, Guerra, & Williams, 2014). Waisbroad, Buchbinder, and Possick (2012) point out that home visitation creates an open space for the home visitor and the family to connect, build rapport, and to touch on important issues affecting the family as they are in their natural environment; critical elements of connecting with trauma-exposed new immigrants. Despite the limited research on home visits for refugee or immigrant families specifically, what is available has shown that home visiting as interventions are effective and greatly support families (Knox, 1996; Willimson, Knox, Guerra, & Williams, 2014). Specifically, there were gains in parenting skills, family functioning, and child's readiness for preschool (Willimson, Knox, Guerra, & Williams, 2014). Additionally, home visiting improves connections with the community and resources available to them, the positive impact on parent-child interaction, home safety, and reduction of social isolation (Knox, 1996); all critical to supporting new refugees and immigrants who are adjusting to life in a new country.

The Baby TALK Home Visiting Program Model: An Approach to Working with Trauma-exposed Refugee and Immigrant Families. Taking all of this into consideration, the Baby TALK Model integrates a research-informed home visiting component in its approach to intervening with all families, including families with high-risk characteristics, who are in need of early intervention services. Much of what the literature has cited as necessary in a high-quality home visiting model – trained professionals with the qualities to engage families, a level of service intensity and duration to support positive outcomes, access to protocols and materials that support professional competence, parent learning and engagement, and a framework for building community connections – is embodied in the Baby TALK Home Visiting Program Model. The Home Visiting Program protocol includes extensive early childhood material and Baby TALK trained professionals who complete the four-day core training are eligible for implementing the engagement strategies and materials in their respective early intervention programs (see Section 2 for full details of the training). Additionally, the methods of engagement in Baby TALK's Home Visiting Program Model embody the critical concepts of engaging families through a relational process that affirms parent competence and allows the parent to help guide and develop the quality of the parent-child relationships (Baby TALK Training Manual, 1997). Moreover, the Baby TALK home visiting approach emphasizes the critical nature of building a “trustworthy system of support” through linkages to services and resources to help parents help themselves by fully integrating families into their community.

Additionally, the Baby TALK Home Visiting Model is ideal in its approach to engaging trauma-exposed families – particularly those of refugee or immigrant status – because its core design emphasizes a relational approach since Model’s beginnings in 1986. The core concepts and framework of the model emphasize the importance of meeting families where they are, using effective communication strategies that honor culture, promote parent confidence and self-efficacy, and approaches that ensure families are engaged from a place of respect and curiosity. When considering the importance of engaging at-risk families with young children, early identification and the delivery of home visiting services can be incredibly valuable. For culturally-diverse, trauma-related refugee and immigrant families, home visiting approaches that employ a relational approach truly matter because it influences level of engagement and ultimately, if the gains of home visiting can be realized for the family.

Although the Baby TALK Model is not currently listed in the HomVEE list, it is a model recognized as a “Promising Practice” under the SAMHSA National Review of Evidence-based Practices (NREPP) Registry and is approved as an evidence-based model for use in ISBE-funded Prevention Initiative programs that serve children birth to age three (Request for Proposals can be retrieved at http://www.isbe.net/earlychi/pdf/pi_rfp_12.pdf). Documentation from programs and home visitors have indicated a level of success in identifying and retaining families in need of home visiting services, positive engagement with parents, positive developmental outcomes for young children, and increased parenting competence among parents (C. Quigg, personal communication, December 2, 2015). The following study sought to quantify the outcomes that have been informally collected across Baby TALK home visiting programs throughout Illinois over the last two decades but with a specific focus on relational approaches to engaging culturally-diverse, trauma-exposed refugee and immigrant families.

RESEARCH QUESTIONS

The study was designed specifically to answer the following research questions:

Research Question 1: What was the impact of Baby TALK Home Visiting Program Model between randomly assigned treatment and control groups on the following outcomes?

- a. Child’s social-emotional development (as measured by Ages and Stages Questionnaire, Social Emotional, ASQ: SE2)
- b. Child’s language development (as measured by Preschool Language Scales, PLS-5)
- c. Parental Stress Level (as measured by Parenting Stress Index, Fourth Edition, Short Form, PSI-4-SF)
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- e. Economic Self-Sufficiency (as measured by study-developed questionnaire)
- f. Referral Coordination (as measured by study-developed questionnaire)

In addition, the study had the following research question regarding positive parenting practices:

Research Question 2: What was the change in positive parenting practices (as measured by Baby TALK Home Visiting Personal Encounter Documentation Form) within the treatment group between baseline and 12-months after baseline data collection?

RESEARCH HYPOTHESES

The study tested the following two hypotheses specifically with regard to the parental and child outcomes. These two hypotheses reflect how the Baby TALK Home Visiting intervention might specifically address the parent and child outcomes:

1. Families who experience the Baby TALK Home Visiting intervention have parents with lower levels of stress and lower trauma symptoms than families who do not receive the intervention.
2. Children who experience the Baby TALK Home Visiting intervention have more positive language and social emotional developmental outcomes as compared to families who do not receive the intervention.

II. STUDY CHARACTERISTICS

A. INTERVENTION CONDITION

Baby TALK® (Teaching Activities for Learning and Knowledge) began in Decatur, Illinois in 1986 as a result of a collaboration between Decatur Public Schools, Macon County Health Department, Decatur Public Library, Millikin University, and Richland Community College. The Model has also been affiliated with the Brazelton Touchpoints Center with its Founding Director serving as a Touchpoints faculty member. The Baby TALK Model employs a relationship-based universal approach, building community systems to cast a net over the childrearing population, particularly effectively identifying families with newborns who may be in need of intervention services.

The mission of Baby TALK is to positively impact child development and nurture healthy parent-child relationships during the critical early years. Baby TALK carries out this mission through less intensive group services for families with fewer risk factors and more intensive home visiting and case management with families whose needs are greater. Since it was established, the training faculty at Baby TALK has provided early childhood professionals from across the country with training, consultation, curriculum, and parent materials on its unique approach to working with high-risk families.

“Like many states, Illinois has placed a great deal of emphasis on using research-based intervention models to target high-risk children who are at greater risk for developmental delays, mental health needs, and/or school failure” (Hilado, Leow, & Hornstein, 2012, p.4). In Illinois, the Baby TALK Model has been used extensively in birth-to-three programs overseen by the Illinois State Board of Education (ISBE), Early Head Start (EHS), Chicago Public Schools and Chicago Department of Family Support Services (DFSS) because of its evidence-based approach to serving young children through the age of three years. The priorities of these government-approved entities are in line with federal and state-level priorities as each focuses on the health and well-being of our youngest members of society and their families.

The efforts of ISBE are illustrative. ISBE has implemented standards that specifically emphasize the need for collaboration with families and providers to provide “early identification of and response to educational risk factors among children from birth through three years of age” (www.isbe.net, n.d.). ISBE’s *Early Childhood Care and Education Position Statement* further calls for “collaboration with families, community organizations, child care organizations, Head Start and other state agencies to meet the physical, mental, social and emotional needs of young children, including their physical care and protection; share resources, services and accountability” (www.isbe.net, n.d.) and service requirements are listed in the Illinois School Code (105 ILCS 5/2-3.89).

Since 2005, the Baby TALK Model is included in the list of evidence-based models that may be used by ISBE-funded programs through the Prevention Initiative Grant serving children birth-to-

three years and their families (see Prevention Initiative Funding Request for Proposal (FY2012) available at http://www.isbe.net/earlychi/pdf/pi_rfp_12.pdf. The Baby TALK Model's inclusion in the approved list is in part because of its evidence-based and research-informed curriculum that supports the identification of at-risk families, and its track record of providing effective intervention services across the state.

Previous research on the Model has shown that the Baby TALK Model does indeed identify high-risk families with young children, early in the life of the child (Hilado, et al., 2012). In comparing program, county, and federal data on risk characteristics of families enrolled in early intervention services, Baby TALK participants were aligned with the characteristics of high-risk families seen in county and federal data (Hilado et al., 2012). In a study comparing time of identification, the researchers found that the Baby TALK Model implemented in Decatur, Illinois was able to identify mothers in prenatal and hospital services, and begin supportive service before or at the time of delivery (Hilado et al., 2012).

Prior research has also shown that children receiving Baby TALK interventions also showed positive gains in the area of verbal ability upon entering kindergarten (Mandernach, 1997). Moreover, families receiving Baby TALK services showed greater compliance with Well Child visits during the first three years of their child's life (Mandernach, 1995). This last finding is particularly critical in considering the importance of identifying development and mental health needs early, and the ability to seek services when appropriate.

Quick Facts about the Baby TALK Model:

- Since 1986 the Baby TALK Model has been serving families in **32 states** across the country, including Illinois, and in Canada.
- There are **1,200 professionals** trained in the Baby TALK Model in programs across the United States through Baby TALK's National Learning Institute.
- In Illinois, more than **100 publicly-funded** programs use Baby TALK as their model for working with families. ISBE Prevention Initiative programs make up the greatest number of these programs.
- As of FY17, **6,781 of 13,330 children (51%)** served by the ISBE Prevention Initiative program are served using the Baby TALK Model in Illinois, making Baby TALK more widely applied in ISBE-funded birth-to three programs than children served by other early childhood intervention models (*e.g.*, Parents as Teachers, Nurse/Family Partnership, Health Families) combined.

General Model Components. The mission of the Model is achieved through four components:

- (1) Building a staff of trained Baby TALK professionals to provide relationship-based universal screening;
- (2) Strategic placement of Baby TALK staff throughout the community;
- (3) Creating a “trustworthy system of care” for participants; and
- (4) Providing extensive early childhood family support services through personal encounters employing Baby TALK “critical concepts” and using Baby TALK protocols and curriculum.

Component 1: Building a staff of trained Baby TALK professionals to provide relationship-based universal screening. A fundamental goal of the Baby TALK Model is to universally screen all families with young children within a community and provide interventions that will support the child and family unit. To reach this goal, a body of early childhood professionals is assembled and required to complete four days of training on the Baby TALK intervention model and related early childhood development curriculum. Baby TALK leaders hold at least a Bachelor's degree in early childhood or related field. Leadership is defined as those directly overseeing home visiting professionals. Related fields:

- Human Service
- Behavioral Science
- Social Science
- Early Childhood
- Child Development
- Early Childhood Special Education, Special Education, Elementary Education
- Health related field

The Model also suggests staff receive regular reflective supervision with opportunities to meet with a program coordinator on a case-by-case basis. Once a staff is trained, these Baby TALK professionals are sent to critical locations in the community to screen families with young children who may be in need of services.

Component 2: Strategic placement of Baby TALK staff throughout the community. The Baby TALK Model's implementation format requires that trained Baby TALK professionals be a visible presence in the community. For example -- in the Baby TALK Decatur, Illinois demonstration program, early childhood professionals are placed in prenatal clinics, hospital obstetric units, public health clinics, Women, Infant, and Child (WIC) programs, preschool programs, and in high school settings. Other programs using the Baby TALK Model nationwide have placed trained professionals in libraries, community centers, and in religious institutions in addition to the locations used in the demonstration program.

The strategic placement of trained professionals is a unique feature of the Baby TALK Model. Placing professionals throughout the community increases opportunities to encounter populations who may otherwise remain below the radar when it comes to social and educational services. This approach also enables the early identification of families. For example, professionals in prenatal clinics and hospital units can locate expectant mothers who may be in need of pre- and post-natal support services. Those supportive services can then be continued after new moms are discharged from the hospital. The idea is to place Baby TALK professionals in locations frequented by high-need families to help families make the first connection to early childhood services at those locations.

Consequently, the Model focuses on “going where parents and children already are” and creating a “trustworthy system of care” starting from the first encounter (www.babytalk.org, n.d.). These two phrases are critical concepts of the Model’s approach. Baby TALK professionals build trusting relationships with families by being in the community, providing universal screening, and directing families to wrap-around services through a coordinated network of support, inclusive of all community-based service providers.

Component 3: Creating a “trustworthy system of care” for participants. Creating a coordinated network of support is an additional feature of the Baby TALK Model. During the screening process, and in identifying the locations frequented by families with young children, the Baby TALK Model helps early childhood professionals get a sense of the types of needs presented in their given community. Once needs are identified, Baby TALK provides guidance and tools to develop a “trustworthy system of care.”

To illustrate, one program using the Baby TALK Model serves high-risk families who are isolated and lack transportation. To address these specific barriers and get families access to needed early childhood services, that specific program focuses on service delivery in the home and providing transportation to programming. This is one example of how programs using the Baby TALK Model can adapt programs to meet specific client interests and circumstances.

At the same time, the goal of the trustworthy system of care is to coordinate information and resources throughout the community. The Baby TALK Model makes it easier to achieve this goal because of the placement of Baby TALK professionals in community locations.

Coordinating the resources at each of these social service offices is easier because Baby TALK staff is already at these locations, providing greater access and coordination of access to additional services for families. In the current study, Baby TALK-trained professionals were staffed in a local refugee resettlement program so as to easily identify refugee and immigrant families with young children who may already be accessing services from the agency.

Component 4: Providing extensive early childhood family support services through personal encounters employing Baby TALK “critical concepts” and using Baby TALK protocols and curriculum. Lastly, the Baby TALK Model provides an extensive curriculum on early development and age-appropriate protocols for delivering interventions. The Model also provides detailed guidelines to professionals who will share this information with families. To illustrate, the Baby TALK Model provides professionals with protocols for home visitation and center-based programming to guide interactions with parents. In these settings, age-specific early child development curriculum is shared with the family. Baby TALK provides content that ranges from prenatal development (*i.e.*, expectant mothers who are three to nine months pregnant) through school entry (*i.e.*, children up to age five). The content provides information on typical development and also methods to engage children and parents in the context of facilitating parent/child interaction at each stage of development. When families present high levels of risk, protocols and curriculum may be tailored to provide the most relevant information for parents, including conversations and reflections with parents using trauma-informed content.

Together, the approach to locating families with young children, the extensive protocols and curriculum to guide encounters with families while being flexible to meet the needs of each family, and the ongoing coordination of services, sets the Baby TALK Model apart from other models used in the field. Most importantly, the Model’s approach to identifying at-risk families allows early childhood professionals to identify high-risk participants *early* and implement supportive or intervention services soon thereafter. These are core Baby TALK concepts that directly inform the Baby TALK Home Visiting Program Model that is at the center of this study.

THEORETICAL FRAMEWORK FOR THE BABY TALK MODEL

Model Framework: A relational approach to supporting at-risk families. The Baby TALK Model is based on the work of several groundbreaking child development and social learning experts. These experts have shaped our understanding of child development, early learning, and development throughout the lifespan, and the importance of social supports and interventions in helping children reach their developmental potential. Each of the experts cited by Baby TALK has identified a parallel process to how the Baby TALK Model recognizes the importance of parents and the need to support both child and parent through an engaged relationship (Baby TALK Training Manual, 1997). Erik Erikson (1959) cited the first 18 months of life as a critical period for an infant to learn trust versus mistrust. The Baby TALK Model sees this same period as one where parents are adjusting to their new roles and learning to trust their system of care. To this end, the Model focuses on affirming parent confidence in parenting their child and recognizing the parent/caregiver as the expert through a consistent and supportive relationship that integrates education and builds parenting competence.

Jean Piaget (1964) and Lev Vyogtsky (Chaiklan, 2003) provided knowledge around the development of a child's changing ability to think, and that through supportive social experiences, children develop cognitive and language skills. The Baby TALK Model integrates these concepts through its engagement with parents, knowing that parents develop and think about their children differently over time. Additionally, the Model recognizes that parents' learning needs to be as equally scaffolded as the child's learning in order to promote growth and development for both parties.

B.F. Skinner (1957) and Albert Bandura (2001) contributed to our understanding of behavioral conditioning and the learning that happens through social exchanges with, and observations of, others. The Baby TALK Model integrates these concepts by engaging parents in ways that affirm positive parenting skills so those are repeated, while extinguishing behaviors that are less serving to the parent and child. The Model also recognizes the attention new parents have on the basic needs of their child prior to thinking about global development (Baby TALK Training Manual, 1997), much in line with Abraham Maslow's (1962) conceptualization of Maslow's hierarchy of needs. In response, the Baby TALK Model meets parents where they are and provides supportive structures to advance their thinking about needs of the child beyond feeding, sleeping, and physical care.

Finally, the work of T. Berry Brazelton (Brazelton & Sparrow, 2001) greatly informs the Baby TALK Model, specifically informing the Newborn Encounter Protocol and the idea of scoring a child's "best performance" rather than where the child demonstrates mastery. Brazelton taught us that children learn in bursts, pauses, and possible regressions, which can lead to a great deal of stress for the family. In response, the Baby TALK Model assumes that all parents want what is best for their child and that parenting skills, also, develop in an episodic pattern. Professionals acknowledge every good effort in parenting and validate gains over a period of time. The trusting relationship built between professional and parent-child dyad, a hallmark of the Baby TALK Model, supports the premise that development and growth will occur over time and the professional relationships will remain supportive through that period.

A.2 INTERVENTION CONDITION – BABY TALK HOME VISITING COMPONENTS

The Baby TALK Model, Component 4 – *Providing extensive early childhood family support services through personal encounters employing Baby TALK “critical concepts” and using Baby TALK protocols and curriculum* – includes an extensive protocol and early child development curriculum to guide delivery of **home visitation services** (herein **the Baby TALK Home Visiting Program Model**, intervention condition). This section defines the some of the core components of the Baby TALK Home Visiting Program Model that outline the intervention condition for treatment families in this study.

Three elements of the encounter. During a standard 60-minute home visit, home visitors divide the session into three areas: affiliation/assessment (10 minutes), observation/parent-child interactions (40 minutes), and planning (10 minutes). During the *affiliation/assessment* period, the home visitor spends time connecting with the family using Baby TALK strategies and tools of conversation such as “tell me about your baby”, using the behavior of the child as the common language, or remarking on parent mastery. The *observation/parent-child interaction* period is when the home visitor engages the parent in observing the child, observing the interactions and modeling/remark on behaviors that promote both child development and parenting skills using the Baby TALK Home Visiting curriculum (described in the next sections). The final component of the visit – *planning* – is an opportunity for the home visitor to discuss next steps for the family (both parent and child) and any needs within the family. See Appendix B for sample of the Personal Encounter Documentation form used for each home visit.

Parent-child observations/interactions. The majority of the home visit is spent doing observations of the parent-child interaction. Whether it is a mother-child or father-child dyad being observed, the home visitor will track activity in six categories: Holding, Eye Contact, Talking to the child, Calming/Comforting, Serve and Return, and Play Behaviors. Each category is scaled from 0 (no engagement) to 3 (full engagement). The expected outcome is to see an increase in engagement scores across the six categories over the period of time in which the home visitor works with the family. See Appendix B for sample of the Personal Encounter Documentation form that outlines the categories for each observation.

Baby TALK Tools for Conversation. Baby TALK home visitors are trained on a variety of core concepts that inform the strategies he/she will use to engage families during a home visit. The “tools for conversation” are specific concept areas that the home visitor can use to guide the relationship and elicit parent reactions about their child’s behavior. They also use the child’s development and/or mastery of skills to engage parents in thinking about their child’s growth. These concepts include “*Tell me about your baby*,” which allows the parent to serve as expert in sharing her thoughts on her child’s development, “*parental mastery*” which uses the parents observed skills as an anchor for promoting parent confidence and opportunities to scaffold further learning of parent skills, or “*child mastery*,” which allows the home visitor and parent to acknowledge new gains in the child and opportunities to support those gains. See Appendix B for full list of conversation tools.

Baby TALK Home Visiting Curriculum. The Baby TALK Home Visiting Program Model includes curriculum to guide a home visitor from the prenatal period (used with pregnant mothers) to children age 5 years and their parents with content for each month of development from prenatal to 36 months and then general period of development through the preschool years. Each stage of development includes three components: 1. Encounter Protocol to guide the home visit, 2. Age-specific activities, and 3.

Developmental perspectives specific to the child, parent, general reflections for the time period, and guidance for the home visitor when engaging a child and family at the respective stage of development. See Appendix C.1-C.3 for sample of curriculum for an 18 month old child.

Social supports. Social support is understood as a critical element that supports vulnerable families with young children. Consequently, the home visitor is expected to spend a portion of the planning time at the end of the session to identify what supports exist for the family or supports are needed. This discussion provides an opportunity to identify any necessary referrals that will allow the visitor to strengthen the family's connection to resources within their community while building a stronger safety net of support for the participants. See Appendix B for questions included to ascertain social support and referrals needed.

Emotional temperature in the room. Consistent with the Baby TALK Model's overall emphasis on a relational approach to intervention with families, home visitors are required to track the "emotional temperature" at the beginning and the end of each home visit. There is a four-level scale for the emotional temperature from *Very cold/detached/unwelcoming* to *Very warm/friendly, enthusiastic*. An expected outcome of ongoing home visits using the Baby TALK Home Visitation Program Model is a strong home visitor-family relationships that grows from the nature of each visit (*i.e.*, the three components) and is reflected in the increase in emotional temperature at each subsequent session.

Duration of sessions. Participants receiving Baby TALK Home Visiting services are seen twice a month for a minimum of 60-minutes each session, each session covering the three elements of the home visiting encounter described above. Families with more intensive needs may be seen weekly for an indefinite period of time up to the time the child reaches 36 months and he/she transitions to a center-based early childhood or preschool program. Some children may continue to receive home visiting services beyond the 36 month period at the discretion of the home visitor.

Mode of delivery. The Baby TALK Home Visiting Program Model is to be delivered to parent and child simultaneously in the home or a preferred location of the parent (*e.g.*, relative's house, community space, etc.).

A.3. TRAINING AND IMPLEMENTATION MATERIALS

Baby TALK, Inc. has been training professionals from a variety of disciplines since 1989. In response to the growing number of professionals interested in the Baby TALK Model, the Baby

TALK National Learning Institute was established in 2010 as a means of providing ongoing professional development opportunities to early childhood professionals who work with families of very young children. As mentioned, the Baby TALK's National Learning Institute has trained professionals from 32 states across the country with significant representation in Illinois, as the Baby TALK Model is one of the ISBE-approved evidence-based models allowed in birth-to-three programs.

4-Day Core Training. The Baby TALK National Learning Institute offers a 4-Day Core Training, required for a professional to implement the Model and/or use the parent engagement early childhood curriculum (See Appendix D for agenda and training objectives). The Core Training sequence is offered a minimum of 4-6 times per year in Illinois and is open to both in-state and out-of-state participants. For out-of-state professionals who seek Baby TALK training and cannot attend the trainings in Illinois, members of Training Faculty travel on an ongoing basis to meet the needs of out-of-state professionals. Members of the Training Faculty consist of seven professionals who have extensive training and experience in early childhood and the implementation of the Baby TALK Model. These seven faculty members support any professionals who completed the Core Training and any additional Baby TALK-sponsored professional development opportunities. The Training Faculty are chosen from the Baby TALK network and enter into an 18-month learning process which includes self-study, direct instruction, mentoring, and reflective supervision as described in the training manual¹. See Appendix D for the full training agenda and outline of training activities.

Implementation and caseload. Baby TALK-trained professionals are expected to carry a caseload of 20 cases if they are full-time (40 hours/week) and 10 cases if part-time (20 hours/week). The time allocated includes the 60-minute home visit, time to prepare prior to the visit and complete paperwork after the visit, case management for each family, and regular reflective supervision.

Supervision requirements. Baby TALK Home Visiting programs require at least one supervisor who will provide regular reflective supervision – 1-2 times per month, 60-90 minute sessions each – to ensure model fidelity and to support home visitors in the field. The *Baby TALK Model Fidelity and Self-Assessment Instrument* is administered within each program annually as an opportunity for the program to reflect on the implementation of the model and its core concepts. Within the self-assessment is a reflection on the nature of supervision and the guidelines for both task and reflective supervision as core elements of best practices using the Baby TALK Model. For the purpose of this study, supervision was provided to Baby TALK-trained home visitors twice per month for 90 minutes to ensure core concepts were covered in each visit, challenges with visits were addressed early (if applicable), and home visitors felt supported in the field.

Summary of ongoing professional development and technical assistance support. To ensure model fidelity, professionals training in the Baby TALK Model have access to a number of additional resources through Baby TALK, Inc.'s Learning Institute. These resources include: the Baby TALK Professional Association (BTPA); technological support for those programs/providers using Baby TECH, a software specific to home visiting programs using the

¹ The full Baby TALK Training Manual (1997) is not included in this submission but a CD copy can be made available upon request.

Baby TALK Model; the Baby TALK Model Fidelity Self-Assessment Tool (BTMFSA) to ensure programs implement the Baby TALK Model as the Model developers intended; and ongoing Quality Assurance Measures to ensure professionals are meeting federal and state guidelines for sound delivery of early childhood services in the field. Complete descriptions of each are provided in Appendix E.

A.4. IMPLEMENTATION INFORMATION REGARDING THE STUDY

There was no adaptation of the Baby TALK Home Visiting Program Model during the actual implementation of the intervention condition. In this study, all home visits were completed in the participant's home. Treatment families received the standard dosage of services outlined in the program model (*i.e.*, 60 minute sessions twice a month for 12 months) and the visits involved both parent and child simultaneously. All home visitors delivering the treatment/intervention condition completed the 4-day Core Baby TALK training prior to delivering services and received bi-monthly (twice a month) supervision to ensure model fidelity. Additionally, all Baby TALK home visiting documentation forms – preparation forms prior to each visit and the Home Visitation Personal Encounter Documentation form (Measure 7 – Appendix B) completed after each visit – were reviewed to further ensure model fidelity and for measuring any increase positive parenting strategies among the treatment participants.

B. CONTROL CONDITION

As noted, the intervention condition was the delivery of home visiting services twice a month, 60-minutes per session, for one year using the Baby TALK Home Visiting Model. Those in the control condition received no home visits for the study duration, but did receive one visit every three months with a delivery of one package of diapers to help ensure that participants remained in the study.

C. SETTING

The study was completed in collaboration with the RefugeeOne Wellness Program, a mental health program serving families with young children through older adults at a local refugee resettlement program in Chicago, Illinois. Participants were refugees and immigrants accessing services at RefugeeOne or referred for services by other refugee- and immigrant-serving programs in the area. All baseline data was collected onsite at RefugeeOne or in the participant's home. The majority of the participants live in lower income, multi-unit apartments located in ethnically diverse, urban neighborhoods on the north side of Chicago within a 5-10 mile radius from RefugeeOne.

D. PARTICIPANTS

Sample characteristics. Participants were purposefully recruited across ten different ethnic groups across four different global regions designated by the U.S. State Department Bureau of Population, Refugees and Migration (PRM). Participants represented the following PRM Regions and the respective countries (in parentheses) included: Africa (Democratic Republic of Congo), East Asia (Burma, including Rohingya Burmese), Latin America/Caribbean (Columbia, Cuba, Ecuador, and Mexico), and Near East/South Asia (Iran, Iraq, and Syria). These ethnic groups were targeted to reflect the diversity of the refugees as well as immigrants with undocumented status that were accessing services at RefugeeOne.

Upon receiving Informed Consent, the baseline instruments were administered and then those participants were given their randomized assignments described fully in the next section. The randomization was conducted separately for different ethnic groups (by PRM region) to ensure the balance of the participants within each group. All the participants had same chance to be assigned into treatment or control group. Those assigned to the treatment (home visiting services) began receiving the intervention/treatment condition immediately after baseline. All control families received diapers every three months from baseline data collection and occasional check-ins to encourage continued participation. Table 1 describes the general sample characteristics of the study participants.

Table 1. General Sample Characteristics

General Characteristics: Study Sample	
Sample Characteristics	<p>The study involved a universal screening of parents of diverse demographics, which included a particular search for families with risk factors, paralleling studies conducted by Maternal Infant Early Childhood Home Visiting (MIECHV)/Mother and Infant Home Visiting Program Evaluation (MIHOPE) and the risk qualities that include:</p> <ul style="list-style-type: none">• Low-income• Young mother• Single parent• Low social support• Parent with physical or mental health needs• History of domestic violence• History of substance abuse• Child with special needs/disability• Adult with disability• *Refugee or undocumented immigrant status (Primary risk factor in this study)

At recruitment, there were 200 families. Of this sample, 101 families were randomly assigned to treatment and 99 families were randomly assigned to control. The final sample for the analysis had 167 families: 86 treatment and 81 control families. Thus, attrition was only 16.5% which is within the acceptable range, and hence, we are presenting the analytic sample from here onward.

All participants were mothers, except for one grandmother who served as the primary caretaker in the family in the control group. The following Tables 2-8 outline major demographic characteristics by assignment:

Racial/Ethnic Composition. As described, participants represented the following PRM Regions and the respective countries (in parenthesis) included: Africa (Democratic Republic of Congo), East Asia (Burma, including Rohingya Burmese), Latin America/Caribbean (Columbia, Cuba, Ecuador, and Mexico), and Near East/South Asia (Iran, Iraq, and Syria). Randomization was completed for all participants by Region to ensure there were no significant differences between groups as outlined in Table 2. The total participants by Region also reflects the varying numbers of those resettled in the Chicago and served by RefugeeOne with our highest service numbers being among those from East Asia (*i.e.*, Burma) and Near East/South Asia (*i.e.* countries in the Middle East).

Table 2. Main Ethnic Grouping by Assignment

Main Ethnicity Grouping	Treatment	Control	Total
Africa	15	13	28
East Asia	55	56	111
Central/Latin America	7	7	14
Near East/South Asia	24	23	47
Total	101	99	200

Note: No significant differences were found between the treatment and control groups ($p=0.99$), which is not surprising since randomization was stratified by this main ethnic group classification.

Immigration Status. In addition to the risk factors presented by MIECHV and MIHOPE, immigration status was an included factor as there is added risk due to adjustment, mental/physical health needs, and the added risk of exposure to protracted periods of trauma due to war/conflict, lack of access to basic resources, or legal protection due to one's immigration status in her home or resettlement country.

As noted in Table 3, the majority of the participants were of refugee status, meaning they were registered abroad with the United Nations High Commission for Refugees (UNHCR), registered as a refugee due to a documented "well-founded fear of persecution," and awaited processing through the U.S. Department of State. Once approved for travel to the U.S., the refugee participants had been issued an I-94 Immigrant Visa for refugees and were resettled in Chicago through RefugeeOne or another local refugee resettlement program.

Participants of undocumented immigrant status entered the U.S. without formal immigration papers or they entered with a temporary visa that had expired. Such participants are still able to access services, as immigration status is not a requirement for service, and thus they were also eligible to participate in the study.

At baseline, among the treatment group, 94 parents were of refugee status and 7 parents had undocumented immigrant status. Among the control group, 92 parents were of refugee status and 7 parents were of undocumented immigrant status.

Table 3. Immigration Status by Assignment

Immigration Status	Treatment	Control	Total
Refugee Status	94	92	186
Undocumented Immigrant Status	7	7	14
Total	101	99	200

Note: No significant differences were found between the treatment and control groups ($p=0.77$).

Years Displaced Prior to Resettlement in United States/Chicago. At baseline, the average years of displacement was 9.1 years across all families in the study. Table 4 summarizes the length of years displaced by treatment and control group. Many of the refugee participants (93% of the sample) in the study had been displaced in refugee camps or urban cities while awaiting resettlement in Chicago. As noted in the literature review, such protracted periods of displacement and uncertainty that come with refugee status (and undocumented immigrant status) can directly impact individual and family wellbeing, particularly among families with young children. As such, the inclusion and focus on maternal health and mental health/trauma symptoms in the study was appropriate given the qualities of the sample.

Table 4. Years Displaced Prior to Resettlement in U.S./Chicago by Assignment

Years Displaced	Treatment	Control	Total
Less than 5 years	36	34	70
5 to 10 years	18	18	36
10 to 20 years	30	28	58
more than 20 years	14	15	29
Missing	3	4	7
Total	101	99	200

Note: No significant differences were found between the treatment and control groups ($p=0.99$).

Maternal Education Levels. Table 5 summarizes the maternal education levels of parents in the study. There was no significant difference between treatment and control participants ($p=0.12$) and there was a large percentage of participants across both groups that had less than a high school education, an accepted risk factor among families with young children.

Table 5. Maternal Education Level by Assignment

Maternal Education Level	Treatment	Control	Total
None	32	18	50
Elementary	19	31	50
Middle	8	7	15

HS/GED	27	22	49
BA or above	8	9	17
Missing	7	12	19
Total	101	99	200

Note: No significant differences were found between the treatment and control groups ($p=0.12$).

English-language Learners. At baseline, among the treatment group, 89 among 101 of parents were not proficient in English, and only 12 parents were proficient in English. Among the control group, 86 among 99 of parents were not proficient in English, and only 13 parents were proficient in English with no significant differences found between treatment and control participants ($p=0.79$). In the study, a team of interpreters aided in the administration of assessment instruments and all Baby TALK-trained home visitors were bilingual and able to deliver the intervention to treatment families in the home language of the family.

Table 6. English-language Learners by Assignment

English Proficient	Treatment	Control	Total
No	89	86	175
Yes	12	13	25
Total	101	99	200

Note: No significant differences were found between the treatment and control groups ($p=0.79$).

Marital Status. The majority of participants identified as married (89%) across both treatment and control groups while a small percentage (6.5%) identified as either single, divorced/separated, or widowed. Additionally, there was no significant difference between the treatment and control participants ($p=0.62$).

Table 7. Marital Status by Assignment

Marital Status	Treatment	Control	Total
Single	5	4	9
Married	92	86	178
Divorced/Separated	1	2	3
Widowed	0	1	1
Missing	3	6	9
Total	101	99	200

Note: No significant differences were found between the treatment and control groups ($p=0.62$).

Parental Age. The average age of parents was 30 years old across both treatment and control families. The average age in the treatment group and in the control group separately were both 30 years old as well. The youngest parent was 16 years old and the oldest was 45 years old.

Child Participants. The children in the sample included 106 boys and 94 girls. The treatment group had 58.4 percent boys and 41.6 percent girls, and the control group had 47.5 percent boys

and 52.5 percent girls. No significant gender differences were found between the treatment and control groups ($p=0.12$).

Family Size. The average family size in the whole study sample was 4.7 members. The average family size in the control group was 4.7 members; the average family size in the treatment group was 4.8 members. No statistical significant differences were found between the treatment and control groups ($p=0.54$).

Public Benefit Recipients. 94 percent of the sample received public benefits including TANF, Medicaid, Food Stamps, Woman, Infant, Child (WIC) vouchers, SSI, and any other government assistance. In the control group, 92 families received public benefits; 96 families in treatment group received public benefits. No significant differences were found between the treatment and control groups ($p=0.67$).

Table 8. Public Benefit Recipient by Assignment

Received Public Benefits	Treatment	Control	Total
No	3	4	7
Yes	96	92	188
Total	99	96	195
Percent	97.0%	95.8%	96.4%

Note: No significant differences were found between the treatment and control groups ($p=0.67$).

Baseline and Analytic Summary: Participant Characteristics. Table 9 below shows the racial composition of the sample at baseline during recruitment while Tables 10-11 summarize the characteristics of the full sample (N=200) as well as the final sample (N=167) used in the analysis. Tables 12-13 present the outcome measures for the full sample (N=200) as well as the analytic sample (N=167) at baseline that will be fully discussed in the next section. As shown in the tables, none of the outcome measures were significantly different between the treatment group and the control group, for both the full sample and the final analytic sample at baseline.

Table 9. Racial/Ethnic Composition of the Sample at Baseline

Region	Treatment Group (N=101)	Control Group (N=99)
Africa (Democratic Republic of Congo)	15	13
East Asia (Burma)	55	56
Near East/South Asia (Iraq, Iran, Syria, Afghanistan, Bhutan)	24	23
Latin America/Caribbean Islands (Mexico, Ecuador, Columbia, Cuba)	7	7

Table 10. Participant Characteristics by Assignment: Baseline

Characteristic	Treatment Group (N=101)	Control Group (N=99)
	Number of families (%)	Number of families (%)
Immigration Status: Refugee	94.0	92.9
Immigration Status: Immigrant	6.9	7.0
Public Benefit Recipients	95.0	92.9
Maternal Education Levels (HS/GED or higher)	34.7	31.3
English Language Learners	88.1	86.9
Marital Status (married vs. other)	91.1	86.9
Female Child	41.6	52.5
	Average	Average
Parental Age	29.9	30.3
Family Size	4.8	4.7
Years Displaced	9.3	9.0

Note: No significant differences were found in any of the characteristics between the full treatment sample and the full control sample at baseline.

Table 11. Participant Characteristics by Assignment: Analytical Sample

Characteristic	Treatment Group (N=86)	Control Group (N=81)
	Number of families (%)	Number of families (%)
Immigration Status: Refugee	94.0	92.9
Immigration Status: Immigrant	6.9	7.0
Public Benefit Recipients	96.4	96.3
Maternal Education Levels (HS/GED or higher)	34.7	31.3
English Language Learners	88.1	86.9
Marital Status (married vs. other)	91.1	86.9
Female Child	41.6	52.5
	Average	Average
Parental Age	29.9	30.3
Family Size	4.8	4.7
Years Displaced	9.3	9.0

Note: No significant differences were found in any of the characteristics between the final treatment analytic sample and the final control analytic sample at 12-month.

Table 12. Baseline Outcome Measures for the Full Sample (N=200)

Outcome Measure		Control			Treatment			p-value	Effect Size
		N	Mean	STD	N	Mean	STD		
ASQ	ASQSE Total	99	46.52	25.56	101	45.79	27.80	0.85	-0.03
PLS	Total Language Standard Score	99	81.26	7.95	101	84.33	13.48	0.05	0.28
PSI	Total Stress T Score	99	54.80	6.83	99	55.67	5.95	0.34	0.14
	Difficult Child T Score	99	52.27	7.26	99	52.63	7.08	0.73	0.05
RHS	RHS Total	99	8.59	8.97	101	11.07	10.35	0.07	0.26
Referrals	Total Referrals	95	1.32	1.20	97	1.30	1.33	0.93	-0.01
Economic Self Sufficiency	Had a Job (PT or FT)	96	82%	--	99	85%	--	0.63	--
Positive Parenting Practices	# of Positive Parent-Child Interactions	--	--	--	89	9.85	4.83	--	--

Table 13. Baseline Outcome Measures for the Analytic Sample (N=167)

Outcome Measure		Control			Treatment			p-value	Effect Size
		N	Mean	STD	N	Mean	STD		
ASQ	ASQSE Total	81	46.9	26.5	86	45.9	27.4	0.82	-0.04
PLS	Total Language Standard Score	81	80.8	7.9	86	83.9	13.6	0.08	0.27
PSI	Total Stress T Score	81	55.2	6.2	85	55.7	6.1	0.66	0.07
RHS	RHS Total	81	9.1	9.4	86	11.4	10.6	0.15	0.22
Referrals	Total Referrals	79	1.2	1.1	82	1.3	1.3	0.84	0.03
Economic Self Sufficiency	Had a Job (PT or FT)	80	81%	--	84	86%	--	0.46	--
Positive Parenting Practices	# of Positive Parent-Child Interactions	--	--	--	79	9.97	5.00	--	--

Note: The full sample is the sample that was recruited and for which we had non-missing data at baseline. The analytic sample were those participants who remained until the end of the study and did not drop out. The analytic sample size would be different at baseline versus at 12-month depending on missing data.

E. FUNDING SOURCE AND AUTHOR AFFILIATION

Baby TALK, Inc. and the Illinois State Board of Education funded this study. The researchers on the team are not affiliated with the program model developers and are independent researchers on the project. The researchers are listed below with a brief bio:

Aimee Hilado, Ph.D., LCSW (Principal Investigator), Northeastern Illinois University and RefugeeOne. Dr. Hilado is a licensed clinical social worker who actively teaches, conducts research, and maintains a clinical practice with trauma-exposed refugee populations in the Chicagoland area. Dr. Hilado is an Assistant Professor of Social Work at Northeastern Illinois University where she teaches and conducts research around importance of

early development, early childhood and adult mental health, social support, and culturally-sensitive clinical practice with immigrants and refugees. She also established the RefugeeOne Wellness Program in 2011, a mental health program at the largest refugee resettlement agency in Illinois, and continues to oversee operations. Moreover, she has published and presented extensively in the areas of culturally sensitive, integrative clinical practice with immigrants and refugees. Her degrees are in social work and applied child development through Loyola University Chicago and Erikson Institute, respectively.

Christine Leow, Ph.D., Pearson Education, Inc. Dr. Leow is a Manager at Higher Education Courseware for Global Product at Pearson and served as the quantitative methodologist for this study. She has a Ph.D in Policy Research, Evaluation and Measurement and is also trained as a school psychologist with an M.Ed and Ed.S degree. Her research interests focus on addressing selection bias, using rigorous evidence-based research to inform policy, and specializes in program evaluation within early childhood education settings.

Yinmei Yang, M.A., Independent Researcher. Ms. Yang's background is in data management, statistical analysis, and quantitative research. She received a bachelor's degree in economics and recently completed her master's degree in Applied Statistics at West Chester University of Pennsylvania. She also took several graduate level courses in educational research, measurement, and statistics. Ms. Yang has broad research and data analysis experience in a number of areas, including marketing, pharmaceutical, and education.

III. STUDY DESIGN AND ANALYSIS

A. SAMPLE FORMATION

Sample Recruitment and Eligibility. Initially, we aimed to recruit 200 parents with children under the age of four years that would be equally split between treatment and control groups. During the recruitment process, we decided to over-recruit so that after we take into account participants who might decline after recruitment, we would still have a sample of 200 participants at baseline. With this aim, at the end of baseline data collection, we recruited and obtained baseline data for a total of 200 participants (**101** treatment and **99** control). Any family with children under age 36 months at baseline with refugee or undocumented immigrant status upon arrival in the United States was eligible to participate.

Unit of Assignment. In this study, parent-child pairs were recruited and were randomly assigned to intervention or no-intervention. Hence, the unit of assignment is the parent-child. All analyses for this study was also conducted at the parent-child level.

Randomization Process. Once the researchers had the list of participants who consented to participate in the study, half of the participants were randomly selected using the SAS survey function (proc survey select) and assigned to one group, and the other half were assigned to the other group. A total of 200 participants were recruited where 101 participants were randomly assigned to the treatment group and 99 participants to the control group.

B. MEASURES

Six instruments were used to measure seven outcomes in this study: Two child development outcomes (measure 1 and 2), two maternal health outcomes (measure 3 and 4), one outcome relate to economic self-sufficiency (measure 5) and one outcome relate to community engagement (measure 6). One additional instrument was collected for treatment participants only (measure 7) to measure from baseline until the end of study changes in positive parenting strategies among those who received the intervention condition. Details of the information collected for each instrument tool is outlined below in Table 14.

Table 14. Baby TALK RefugeeOne RCT Measures Overview

Measure	Outcome Areas	Instrument Name & Description
1	Child Development	<i>Ages and Stages Questionnaire, Social Emotional 2nd Edition (ASQ:SE2)</i> This is a standardized, normed and valid measure that could be used in conjunction with the Ages and Stages Questionnaire (or other developmental measures) or used alone as a measure of infants' and children's socio-emotional development (Velikonja et al., 2017). A lower total score on this measure indicates that a child is doing better socially and emotionally.
2	Child Development	<i>Preschool Language Scales, 5th Edition (PLS-5)</i> . This is a standardized, normed and reliable assessment tool for assessing children (from birth to age 7) their developmental language, starting from pre-verbal, interaction-based skills to emerging language and early literacy (PLS-5; Zimmerman, Steiner, & Pond, 2011) The scale has two components. The direct assessment component has two subscales including Auditory Comprehension and Expressive Communication. It measures preverbal communications skills, verbal communication development through early literacy, and reading skill development. The parent report component, the Home Communication Questionnaire, supplements the direct assessment for children birth to 30 months old and asks parents about their child's ability to communicate and use words. The scale is available in English and Spanish, and interrater reliability estimates are 0.95, and split-half reliability estimates are 0.90 to 0.97. A higher total language score indicates that a child is faring better in language development.
3	Parental Outcome (Maternal Health)	<i>Parenting Stress Index, Fourth Edition, Short Form (PSI-4-SF)</i> This is a standardized, normed and valid measure for assessing stress in the parent-child system that could be administered in less than 10 minutes (Abidin, R., 2012). This measure assessed four domains of parental stress: i) Difficult Child (DC), ii) Parental Distress (PD), iii) Parent-Child Dysfunctional Interaction (P-CDI), and iv) Total Stress (Total) which sums up the other three domains. We also recorded the Defensive Rating Scale score based on participant responses, which was part of the measure. A lower total stress score indicates that a parent is experiencing less stress.
4	Parental Outcome (Maternal Health)	<i>Refugee Health Screener-15 (RHS-15)</i> This is a standardized, normed and valid measure for assessing the range of emotional distress common across refugee groups including symptoms of anxiety, depression, and post-traumatic stress disorder (PTSD) symptoms. The instrument consists of 14 questions with a response scale ranging from 0 (not at all) to 4

		(extremely) and a distress thermometer scaled from 0 to 10 (10 for extreme distress). This measure can be administered in less than 10 minutes. (Hollifield et al., 2013). A lower total RHS score indicates that a parent is experiencing fewer trauma and stress symptoms.
5	Economic Self-Sufficiency	<p><i>Demographic Data Form</i></p> <p>The Baby TALK Model developers and research team created this form to document key demographic characteristics of the study sample including displacement country, maternal education, language proficiency, family size, and public benefit usage. This form also allowed us to identify the level of risk in addition to other criteria used in home visiting program enrollment using 10 questions (Questions 1-10). See Appendix A for the full instrument.</p> <p>To specifically determine economic self-sufficiency in this study, we will determine the number of families who had either a full-time or part-time job at baseline and at 12-months after baseline data collection. The desirable outcome is for families to have either a part-time or a full-time job as an indication that some form of economic self-sufficiency has been achieved.</p>
6	Linkages and Referrals	<p><i>Demographic Data Form</i></p> <p>A portion of the Demographic Data form described above was specific to linkages and referrals needed by the participants from the community. 17 questions (Questions 11-27) were dedicated to determining basic areas of need including referrals needed for family doctors/pediatricians, location of public benefit offices, information on GED or English training programs, and any other referral needs for the family. See Appendix A for the full instrument. More referrals indicate that a family is more proactive in asking for help and having their needs addressed.</p>
7	Positive Parenting Strategies	<p><i>Home Visiting Personal Encounter Documentation Form (treatment only)</i></p> <p>This form was created by the Baby TALK Model developers to guide each home visiting session and is completed at the end of each visit. The form documents the participants during the home visit, including child behaviors observed and interactions between the parent and child, such as eye contact, communication between parent and child, and engagement behaviors. The form also requires home visitors to document core Baby TALK concepts that are used to engage participants, tracking of curriculum used, referrals needed, and the “emotional temperature” (<i>i.e.</i>, feeling between participants) at the beginning and end of each visit. The form takes 5-10 minutes to complete and was completed for every home visit. A higher positive parenting score indicate that the</p>

		parent is doing better and displaying more positive parenting practices (<i>i.e.</i> , more positive parent-child interactions) with the child. See Appendix B for the full instrument.
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Procedure for Data Collection. Once participants were recruited and randomized, the treatment group participants (101 mothers and their children) were administered the first six instruments listed above at baseline and then at 12-months. Immediately after baseline data collection, the treatment group received the home visiting intervention as planned (*i.e.*, twice per month for 12 months). The *Home Visiting Personal Encounter Documentation Form* (measure 7 above) was completed at every visit completed within the 12-month intervention period. To assess this specific measure, the form completed at the first home visit post-baseline data collection and the final home visit before the data collection at 12-month were analyzed.

Control group participants (99 mothers and their children) completed the first six instruments at baseline and at 12-month. They received periodic visits with diaper drop-off every three months from baseline to the end of the study to keep them connected and minimize the risk of attrition.

C. ANALYTIC APPROACH

Each of the six outcome measures described above (except for the positive parenting practices measure) was analyzed separately. Since the study is a randomized controlled trial with demographic baseline equivalence and baseline outcome measure equivalence, the treatment analytic sample was compared directly with the control analytic sample on the following outcome measures taken at 12-month:

1. ASQ-SE2 (child's social emotional outcome)
2. PLS-5 (child's language development)
3. PSI-4_Sf (parental stress level)
4. RHS-15 (parental trauma symptoms)
5. Linkages and referrals
6. Economic self-sufficiency (having a part-time or full-time job)

The unit of analysis was the parent-child unit, which was also the unit of assignment and intervention. Effect sizes were derived by taking the standardized differences between the two groups.

Data was collected on parents' positive parenting practices for the treatment group during the home visits. That is, during the visit, the home visitor recorded the different kinds of positive interactions between the parent and child. Since the home visits were only meant for the treatment group, no data on positive parenting practices were collected on the control group. The change in positive parent practices from baseline to end of study in the treatment group was also examined.

D. STATISTICAL ADJUSTMENTS

The Baby TALK Home Visiting Program Model specifically targets a child's social-emotional and language development as well as parent's maternal health for intervention. To further address the two hypotheses in this study regarding the outcomes in the child and parental (maternal health) domains, OLS regression analyses were also conducted for the outcomes in these two domains. These regression analyses adjusted for the outcome measures taken at baseline. The analyses were conducted so that the baseline could be controlled before determining the impact of the Baby TALK intervention on these outcomes. In addition, within-group analysis would also be conducted to determine if gains were significant within the group. This would only be conducted when baseline equivalence between the treatment and the control groups has been established on that particular outcome measure.

In this study, when more than one outcome was examined in a domain, it would only be two outcomes for that domain. For example, only two outcomes were examined in the child domain—social-emotional outcome and language outcome. As such, the Bonferroni correction was used to adjust for the *p*-value. Thus, the corrected significance level is set at 0.025.

E. ATTRITION AND MISSING DATA

Attrition Rates. For the whole duration of the study (*i.e.*, from baseline to 12-months), the overall attrition rate was found to be 16.5%. The differential attrition rates between treatment and control ranged was 3.3%. Table 15 below shows the change in sample size from baseline to 12-month. According to both the U.S. Department of Health and Human Services' and U.S. Department of Education's standards (see U.S. Department of Health and Human Services: http://homvee.acf.hhs.gov/HomVEE_brief_2014-49.pdf and U.S. Department of Education https://ies.ed.gov/ncee/wwc/Docs/referenceresources/wwc_standards_handbook_v4.pdf), this attrition is low and any potential bias that could arise due to attrition is within an acceptable range (*i.e.*, tolerable threat of bias).

Table 15. Changes in Sample from Baseline to 12-Month

	Baseline	12-months	Dropped Out
Treated	101	86	15
Control	99	81	18
Total	200	167	33

The original sample at baseline included 101 families in the treatment group and 99 families in the control group. Altogether, 33 families dropped out of the study over the 12-month period, including 15 families from the treatment group and 18 from the control group (see Table 15). The overall attrition rates ranged from 16.5% to 18.5% across the different outcome measures during the 12-month period, and the differential attrition rates between the treatment and control groups over the 12-month period ranged from 1.4% to 3.3%. According to both the U.S.

Department of Health and Human Services and U.S. Department of Education's standards, the attrition rates are low and tolerable of bias.

To determine if the demographic equivalence between the treatment analytic sample and the control analytic sample was maintained even after some participants dropped out of the study, *chi-square* tests were conducted to determine if there were any differences between the treatment and control participants who remained in the study (see Table 16). The results suggest that there are no statistical differences in child gender, maternal education level, marital status, parents' English proficiency levels, family size, and single mother status between the two groups.

Table 16. Characteristics of the Analytic Sample that Remained at 12-Months after baseline

		Treatment	Control	Total
Child Gender	Girl	37	43	80
	Boy	49	38	87
Maternal Education Level	None	30	14	44
	Elementary	15	29	44
	Middle	8	6	14
	HS/GED	23	21	44
	BA or above	6	6	12
	No	75	72	147
English Proficiency	Yes	11	9	20
	2	4	3	7
Family Size	3	11	8	19
	4	24	27	51
	5	20	21	41
	6	18	13	31
	7	3	6	9
	8	5	1	6
	9	0	1	1
Marital Status	Single	5	3	8
	Married	81	75	156
	Divorced/Separated	0	2	2
	Widowed	0	1	1
Single Mother	No	81	74	155
	Yes	5	7	12
Ethnicity	Africa	9	8	17
	East Asia	50	49	99
	Central/Latin America	6	4	10
	Near East/South Asia	21	20	41

Missing Data. To assess potential bias due to missing data in each outcome area, we also calculated the percent of missing data for each outcome area (PSI-4-SF, RHS-15, PLS-5, and ASQ: SE2 scale scores) at 12-months. The missing rate is relatively low across all the outcome areas (<2.5%). Since the attrition rate is very low and the missing data rate is even lower for all the outcome areas, this study used complete cases for the analysis (*i.e.*, case-wise deletion).

IV. STUDY DATA

A. PRE-INTERVENTION DATA, BASELINE SAMPLE

Table 17 below presents the sample sizes, at baseline, of the outcome measures that were examined in the study. See Table 14 for a full description of the measure.

Table 17. Sample Sizes at Baseline for the Outcome Measures

Baseline Measures	Treatment Group		Control Group	
	Sample Sizes		Sample Sizes	
	Unit of Assignment	Unit of Analysis ¹	Unit of Assignment	Unit of Analysis ¹
Measure 1 – ASQ	101	86	99	81
Measure 2 – PLS-5	101	86	99	81
Measure 3 – PSI-4-SF	101	85	99	81
Measure 4 – RHS-15	101	86	99	81
Measure 5 – Economic Self-Sufficiency	101	84	99	80
Measure 6 – Total Referrals	101	82	99	79
Measure 7 – Positive Parenting Practices	101	79	N/A	N/A

Note: ¹This is based on the analytic sample (those who remained in the study) for which we had data on the outcome measure at baseline (*i.e.*, sample sizes in this table align with the sample sizes in the next table below). For information on the sample size for the full sample (with non-missing data on the outcome measures at baseline), see Table 12 under **D. Participants** section.

B. PRE-INTERVENTION DATA ANALYSIS SAMPLE

Table 18 below shows the outcome measures, measured at baseline.

Table 18. Outcome Measures Taken at Baseline for the Analytic Sample

Outcome Measure		Treatment			Control		
		Unit of Analysis	Mean	STD	Unit of Analysis	Mean	STD
ASQ	ASQSE Total	86	45.9	27.4	81	46.9	26.5
PLS	Total Language Standard Score	86	83.9	13.6	81	80.8	7.9
PSI	Total Stress T Score	85	55.7	6.1	81	55.2	6.2
RHS	RHS Total	86	11.4	10.6	81	9.1	9.4
Referrals	Total Referrals	82	1.3	1.3	79	1.2	1.1
Economic	Had a Job (PT or FT)	84	86%	--	80	81%	--

Self Sufficiency								
Positive Parenting Practices	# of Positive Parent-Child Interactions	79	9.97	5.0	--	--	--	--

C. POST-INTERVENTION DATA AND FINDINGS

Table 19 below presents the sample sizes, at 12-month, of the outcome measures that were examined in the study.

Table 19. Sample Sizes at 12-Month for the Outcome Measures

	Treatment Group		Control Group	
	Sample Sizes		Sample Sizes	
Outcome Measures	Unit of Assignment	Unit of Analysis	Unit of Assignment	Unit of Analysis
Measure 1 – ASQ	101	84	99	80
Measure 2 – PLS-5	101	85	99	81
Measure 3 – PSI-4-SF	101	84	99	79
Measure 4 – RHS-15	101	86	99	81
Measure 5 – Economic Self-Sufficiency	101	83	99	81
Measure 6 – Total Referrals	101	83	99	80
Measure 7 – Positive Parenting Practices	101	78	N/A	N/A

Table 20 below shows the outcome measures and the unadjusted effect sizes, measured at 12-months after baseline data collection. Since baseline equivalence had been established for the outcome measures, using the unadjusted effect sizes is valid.

Table 20. Outcome Measures and Unadjusted Effect Sizes at 12-Month

Outcome Measure	Treatment			Control			Effect Size		
	N	Mean	STD	N	Mean	STD			
ASQ	ASQSE Total	84	35.1	23.9	80	39.9	31.1	0.27	-0.17
PLS	Total Language Standard Score	85	91.6	16.6	81	86.1	12.5	0.02	0.37
PSI	Total Stress T Score	84	45.5	8.5	79	46.5	8.0	0.44	-0.12
RHS	RHS Total	86	12.0	10.4	81	9.9	7.7	0.14	0.23
Referrals	Total Referrals	83	1.3	0.9	80	1.1	0.8	0.16	0.22
Economic Self Sufficiency	Had a Job (PT or FT)	83	99%	--	81	95%	--	0.16	--
Positive Parenting Practices	# of Positive Parent-Child Interactions	78	14.4	5.1	--	--	--	--	--

Note: Effect sizes presented are the unadjusted standardized difference between the treatment and control group at 12-months after baseline.

As mentioned, the Baby TALK Home Visiting Model specifically targets a child's social-emotional and language development as well as parent's maternal health for intervention. Again, to further address the two hypotheses (see below) in this study regarding the outcomes in the child and parental (maternal health) domains, OLS regression analyses were also conducted for the outcomes in these two domains with the findings presented in this section. These regression analyses adjusted for the outcome measures taken at baseline. The analyses were conducted so that the baseline could be controlled before determining the impact of the Baby TALK intervention on these outcomes.

In addition, within-group analysis was also conducted to determine if pre-post changes were significant within the group. This would only be conducted when baseline equivalence between the treatment and control groups has been established on that particular outcome measure. Therefore, it is appropriate to use here.

The two hypotheses reflect how Baby TALK Home Visiting intervention might specifically address the parental and child outcomes that at-risk families faced:

1. Families who experience the Baby TALK Home Visiting intervention have parents with lower levels of stress and lower trauma symptoms than families who do not receive the intervention.
2. Children who experience the Baby TALK Home Visiting intervention have more positive language and social emotional developmental outcomes as compared to families who do not receive the intervention.

Regression Results

Tables 21-24 outline these regression analyses adjusted for the measures in these two domains taken at baseline. As seen from the results below, the results from the regression analyses were similar to the unadjusted effect size estimation in terms of significance. However, once we controlled for baseline in the regression analyses, all the outcomes (including RHS Total) were in the expected direction. That is, the treatment participants were *faring better* than the control participants and showing gains based after receiving the Baby TALK Home Visiting intervention.

Specifically, for the ASQ-SE (child social-emotional development) measure, the coefficient is in the right direction meaning children were faring better on the social emotional scale. For the PLS-5 (child language development), the treatment group scored significantly higher than the control group. In terms of the paternal (maternal health) domain measured using the RHS-15 and PSI-4SF, none of the outcomes reached significance but they are now all in the right direction, meaning that parents were exhibiting less stress and trauma after considering their baseline. Such findings suggest there are gains for treatment families using the Baby TALK Home Visiting Model. A larger sample will confirm these results.

Table 21. Statistical Results from OLS Regression: ASQ SE Total

Total ASQ-SE Score	
Baseline Score	0.39** (0.07)
Treatment (=1)	-4.48 (4.01)
Constance	21.61** (4.50)
Number of Observations	164
R-squared	0.15

Note: Standard errors in parentheses. ** $p < 0.01$, * $p < 0.05$.

Table 22. Statistical Results from OLS Regression: PLS Total Language Standard Score

Total Language Standard Score	
Baseline Score	-0.13 (0.10)
Treatment (=1)	5.85** (2.31)
Constance	96.46** (8.45)
Number of Observations	166
R-squared	0.04

Note: Standard errors in parentheses. ** $p < 0.01$, * $p < 0.05$.

Table 23. Statistical Results from OLS Regression: PSI Total Stress T Score

PSI Total Stress T Score	
Baseline Score	0.10 (0.11)
Treatment (=1)	-0.95 (1.30)
Constance	41.06** (5.94)
Number of Observations	162
R-squared	0.01

Note: Standard errors in parentheses. ** $p < 0.01$, * $p < 0.05$.

Table 24. Statistical Results from OLS Regression: RHS Total

RHS Total	
Baseline Score	0.36** (0.07)
Treatment (=1)	-0.01 (0.07)
Constance	0.34** (0.06)
Number of Observations	167
R-squared	0.13

Note: Standard errors in parentheses. ** $p < 0.01$, * $p < 0.05$.

Additional Analyses. The ASQ-SE, PSI Total Stress, and RHS Total were examined further using a within-group analysis (Table 25) to further confirm the outcomes were all in the right direction and given the sample size of the study that lacked power to detect significance across all measures. That is, the pre-post change within the treatment group was estimated and the pre-post change within the control group was estimated. A within-group analysis would yield more power since within-group differences were addressed in such an analysis. Since the treatment and control groups did not differ significantly at baseline in these measures, we could directly compare the changes of the treatment group with the changes of the control group to determine if the changes in the treatment group indeed had them faring better than the control group.

Table 25. Within Group Pre-Post Changes

Outcome Measure		Pre (Baseline)		Post (12-month)			Diff	p-value
		N	Mean	STD	Mean	STD		
ASQSE Total	Treatment	84	46.1	27.7	35.1	23.9	-11.0	0.0003
	Control	80	46.9	26.7	39.9	31.1	-7.0	0.0538
PSI Total Stress T Score	Treatment	83	55.6	6.1	45.6	8.5	-10.0	0.0000
	Control	80	54.9	6.5	46.3	8.0	-8.6	0.0000
RHS Total	Treatment	86	11.4	10.6	12.0	10.4	0.6	0.5483
	Control	81	9.1	9.4	9.9	7.7	0.8	0.4246
Total Parent-Child Interaction	Treatment	78	10.0	5.0	14.4	5.1	4.4	0.0000

Note: A paired t -test on the difference between each individual's change from pre to post was used to determine significance.

Table 25 above shows the results from the within-group analyses and confirmed significant results. For the ASQ-SE measure, compared to the control group, the treatment group showed significant improvements in terms of socio-emotional development. Both the treatment and control groups showed improvement in terms of being less stressed based on the PSI Total Stress

T score. As for the RHS Total, both groups did not improve significantly on their trauma symptom level.

Finally, data on positive parenting practices was only collected for the treatment group but showed significant gains. The change in positive parenting practices (as measured by the number of positive parent-child interactions observed during home visit in Measure 7) was examined between baseline and 12-month. As shown in Table 25 above, there was a significant positive increase ($p = 0.00$) in the number of positive parenting practices from baseline to 12-month.

V. DISCUSSION

Overall, *The Baby TALK - RefugeeOne Randomized Controlled Trial Examining Home Visiting Services with Refugees and Immigrants* was a well-designed and well-executed study that showed significant findings in improving child development and school readiness outcomes, primary domains targeted by the Baby TALK Home Visiting Program Model intervention. In terms of design and execution, attrition and missing data rates were low in this study. As a result, baseline equivalence on demographics and outcome measures between the treatment and control groups were maintained after taking into account the low attrition and missing data rates. This allowed us to directly estimate the impact of the Baby TALK Home Visiting intervention on a number of outcome measures included in the study. As for findings, a significant effect size was found for language development and a significant gain was found for socio-emotional development. Additionally, all the other effect sizes in the maternal health, referral, and economic self-sufficiency domains were in the desired direction. Preliminary evidence further showed a significant positive improvement in positive parenting practices for the treatment group.

The following summarizes key findings of the impact of the Baby TALK Home Visiting Program Model (herein Baby TALK) on parent and child outcomes comparing control and treatment groups at 12 months across the five domains studied and the seven measures implemented, and its relation to key Baby TALK concepts. As noted, standardized differences between the two groups were determined and these effect sizes show the magnitude of the impact of Baby TALK since baseline equivalence was established between the treatment group and control group.

Baby TALK has a statistically significant ($p=0.00$) impact on social-emotional development (child outcome).

Examining child outcomes across the dimensions of social emotional and language development was a primary focus of the study and two measures were used to ascertain impact. The Ages and Stages Questionnaire 2nd edition (ASQ-SE2) was the first measure used to measure social-emotional development. The effect size as measured by ASQ-SE2 Total was found to be -0.17, indicating that the treatment children were doing better than the control children in terms of social-emotional competency at 12-months after baseline. The difference was not statistically significant ($p = .27$), which could be explained by the lack of power thus a within-group analysis was conducted allowing for more power than a direct treatment-and-control comparison. The result was outcomes that were significant. When pre-post within-group gains between the treatment and control groups were analyzed, the treatment group made significant gains ($p=0.00$) while the control group's gains were not ($p=0.05$). The two groups started off with baseline equivalence on this measure, making this a rigorous and valid comparison with statistical significance.

The Baby TALK Home Visiting Program Model emphasizes the importance of a relational approach to supporting the parent-child in a manner that promotes child and family

wellbeing, which is critical for social-emotional development. This is most evident in the Baby TALK home visiting sessions in which the intervention must be delivered to both parent and child simultaneously and not in separate meetings. Additionally, the support of social-emotional growth is also evident in the Baby TALK Home Visiting Program Model's extensive curriculum that supports growth and understanding in the areas of child development, social emotional learning, and the importance of social supports to help the child, parent and family with a keen focus on "tuning in" to the child and responding appropriately. Respectively, the statistically significant findings validate the Model's design that seeks to promote social-emotional competence in the child through supporting meaningful parent-child interactions and the effectiveness of the Baby TALK Home Visiting intervention in supporting growth in this domain.

Baby TALK has a statistically significant ($p=0.02$) impact on language development (child outcomes).

The Preschool Language Scales, 5th Edition (PLS-5) was the second measure used to examine improvements in child development and school readiness outcomes with a focus on language development. The effect size for language development as measured by PLS-5 Total Language Standard Score was found to be 0.37, which is statistically significant ($p =.02$) even after using Bonferroni adjustment to correct for multiple child domain comparisons. According to Cohen's (1988) interpretation of effect sizes, the effect size of 0.37 would be considered a small to medium effect size. That is, the 50th percentile of the treatment group would be at the 66th percentile of the control group in terms of their PLS-5 Total Language Standard Score at 12-months after baseline. As such, the results show both significant and valid gains in this domain.

Since its inception in 1986, the Baby TALK Model has emphasized the importance of Teaching Activities for Learning and Knowledge (acronym for TALK) to families with young children including specific activities that focus on language development through supporting parent mastery in the areas of parent-child communication (e.g., tuning into child remarks and taking turns to extend the conversation) and the promotion of early literacy. A substantial component of each home visit (40 minutes minimum) includes parent-child observations and reflections on how to promote/extend play and engagement through verbal and non-verbal cues while scaffolding age-appropriate language skills that match the developmental age and readiness of the child. This is in addition to the promotion of social-emotional learning previously described. As such, the statistically significant findings validate the Model's emphasis on language development and the effectiveness of home visiting in supporting growth in this domain.

Baby TALK has an impact on parental stress (maternal health).

Another primary focus of the study was to examine improvements in maternal health outcomes across the dimensions of parent stress and parental trauma symptoms, which serve as indicators of maternal mental health. The Parental Stress Index, 4th Edition Short Form (PSI-4SF) was the first maternal health measure that was used to understand parent stress levels and the parent-child relationship recognizing that parent wellbeing can directly influence child development. The effect size for parental stress as measured by PSI-4-SF

Total Stress T score was found to be -0.12, indicating that the treatment parents were experiencing less stress than the control parents at 12-months after baseline. Since the difference was not statistically significant ($p = .44$) and was still not significant even after controlling for baseline, a within-group analysis was conducted in this measure to allow for more power than a direct treatment-and-control comparison while giving us a better understanding of stress-level changes. The within-group analysis results showed that both the treatment and the control groups improved significantly on their stress level ($p=0.00$). Together, the PSI-4-SF Total Stress T score and within-group analysis results suggest that treatment parents receiving the intervention were not only experiencing less stress but their symptoms also improved significantly at 12-months after baseline as compared to control parents.

The Baby TALK Home Visiting Program Model is flexible in its approach allowing time to support both parent and child during each home visit, which can directly influence parent stress levels. As described in *Section A.2 Intervention Condition*, the first 10 minutes of each home visit is dedicated to *Affiliation and Assessment* to ascertain the needs of the family on that given day. This period allows the home visitor to develop a focus for the visit whether that is addressing challenging behaviors observed with the child, addressing general stressors in the family, or identifying any need for resources to support the child and/or family.

Appropriately, the PSI-4-SF findings suggest the effectiveness of the Model in reducing parent stress and strengthening the parent-child relationship by attending to *all* parties with thoughtful support, relevant information and/or resources, and collaboration that reduces parental stress and increases parent focus on supporting both her child and family's wellbeing.

Baby TALK has an impact on parental trauma symptoms (maternal health).

The Refugee Health Screener 15 (RHS-15) was the second measure used to examine improvements in maternal health outcomes with a focus on trauma and related adverse mental health symptoms. This instrument was selected because it was normed for use among refugee populations and the diverse ethnicities included in the study. The effect size for parental trauma symptoms as measured by RHS Total was found to be 0.23, indicating that the treatment parents might still be exhibiting more trauma symptoms than control parents though this difference is not statistically significant ($p=.0.14$). Once we controlled for baseline in a regression analysis, however, the treatment parents showed they were lower on the trauma symptoms overall than the control parents. Thus, it seemed that the treatment group might be coping better as a result of the home visiting intervention once we consider their baseline in trauma scores. While we did not detect a significant difference, the findings on lower symptom levels and better coping levels among treatment parents is worth noting given this is one of the few home visiting studies to specifically examine trauma symptoms among refugee and immigrant populations.

The Baby TALK Home Visiting Program Model was not designed to directly reduce adverse mental health symptoms related to trauma, but research literature suggests trusting, supportive relationships can have a therapeutic quality that can reduce symptoms. Additionally, those receiving home visiting services had greater access to referrals for community mental health providers and related resources through their home visitor, which

may explain the lower trauma symptoms and better coping levels among treatment parents. Supportive home visiting relationships and access to additional resources could produce such outcomes. While we were unable to detect a significant difference given the sample size and challenges of directly associating trauma symptom reduction to any non-mental health protocol, the effect sizes were in the desired position. This is a finding worth noting because it shows the potential breadth of impact effective Baby TALK Home Visiting services can have on trauma-experienced families.

Baby TALK has an impact on access to linkages and referrals.

Examining improvements to community linkages and referrals was measured by reviewing the total referral needs of participants documented through a developed questionnaire for the study. The effect size was found to be 0.22, indicating that treatment parents were more proactive in asking for help and having their needs addressed compared to control parents despite this difference is not statistically significant ($p = 0.16$).

Social support in the form of accessing linkages and referrals to community resources and supports is well known for its ability to strengthen families and communities, particularly for newly arrived refugees and immigrants. In practice, we understand that many refugees and immigrants of undocumented status are less likely to access community resources due to a number of barriers including language, being unaware of existing services or fear of discrimination and legal repercussions due to their immigration status.

The focus on establishing a trusting relationship with families is core to the Baby TALK Home Visiting Program Model, which may have allowed treatment families to overcome some of these barriers. When treatment families were able to see the home visitor's investment in the family through the relational approach to engaging them (rather than simply providing information), that investment translated to greater trust in sharing needs with the home visitor, further resulting in improving the family's access to critical social supports in the community. The effect size showed a positive direction for treatment families in this domain as treatment families were indeed accessing resources to meet their needs compared to control families. Therefore, this speaks in part to the impact of the Baby TALK Model's ability to effectively engage and maintain a trusting relationship with families, and thereby increasing opportunities to improve coordination and access to community resources and referrals.

Baby TALK has an impact on economic self-sufficiency.

Examining improvements in family economic self-sufficiency was measured by the data on employment status within the family – full-time, part-time or unemployed. The percent of treatment families with a full-time or a part-time job was 99% (82 out of 83) compared to 95% (77 out of 81) for the control families at outcomes. All except one of the treatment families had a job suggesting potentially higher levels of economic stability among treatment families who had access to more supports through the Baby TALK Home Visiting intervention. Though this percent is higher than the control families and not statistically significant, the positive direction of this finding is worth noting since economic self-

sufficiency is a direct marker that can either stabilize or destabilize a family with implications for all family members.

This outcome is related to the positive direction we see among treatment families who showed improvement in accessing linkages and referrals to community resources (see above). In reviewing qualitative notes on the documentation form used at each home visit, some treatment families spoke to their home visitor about employment options in addition to community resources. Again, this speaks to the Baby TALK Model's ability to use a trusting relationship with families to improve coordination and access to resources – in this case, potentially helping family's access information on jobs that would assist a family in being more economically self-sufficient while promoting overall family wellbeing.

Preliminary evidence shows Baby TALK has a significant impact on positive parenting practices ($p=0.00$).

Examining improvements in parenting skills or positive parenting practices was measured using the *Baby TALK Personal Encounter Documentation* form completed after each home visit with the treatment group who received the Baby TALK Home Visiting intervention. The change in positive parenting practices was examined between baseline scores and the 12-months after baseline. A within-group analysis showed that the treatment group increased significantly in the number of positive parenting practices (e.g., increased child engagement, communication, eye contact, etc.), as measured by the number of positive parent-child interactions observed during home visit ($p=0.00$).

Given the statistically significant findings across the dimensions of social-emotional development and language development for child participants and the positive direction across the other measures, the evidence suggesting significant gains in positive parenting skills among treatment families is unsurprising. As described, core components of the Baby TALK Home Visiting Program Model intentionally integrate parent engagement and parent-child observations that support parent mastery in supporting the child's social-emotional learning and language development while enhancing child, parent, and family wellbeing. Correspondingly, the documentation form used at each visit reflects these areas of growth and allowed us to measure positive parenting skills over the study period.

Over time, treatment parents learned more about their child and how to support her development. Treatment parents also increased their understanding of effective parenting skills that can support self-confidence, reduce parent stress, and enhance overall family functioning. All of this is built into the Model's design and this finding reflects the significant positive impact the Baby TALK Home Visiting Program Model has on families. Although the measure was specific to only the treatment families who were receiving home visiting/intervention condition, the results do show preliminary evidence of significant gains in this area.

In sum, the analyses showed that all measures were in the expected direction with the treatment group faring better than the control group especially in the domain areas of language and social-emotional development. Where a lack of power in our study sample could have explained why

we did not find more significant effect sizes, we completed additional analyses on pre-post changes which inherently has a higher power than direct treatment-and-control comparison. In doing so, the analysis supported our hypothesis on the limits of the sample size. For example, we specifically found that treatment participants had significantly higher gains than the control participants for the ASQ-SE measure. And since baseline equivalence had already been established, this is a valid and rigorous comparison. Given the statistically significant findings and promising results found across seven domains in this study, we believe the study provides evidence of effectiveness for the Baby TALK Home Visiting Program Model. The future direction for the research of Baby TALK is to continue studying the impact of its Home Visiting Program Model with a larger sample size to further detect significant effect sizes and to replicate this study with other types of populations and needs beyond those presented in the refugee and immigrant participants of this study.

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APPENDIX A. DEMOGRAPHIC FORM (MEASURE 5 & 6)



Illinois
State Board
of Education



FAMILY DEMOGRAPHIC FORM

Case No: _____ Baseline / Outcome Date: _____

Resettlement Agency: _____ Arrival Date: _____

Child's Name: _____ Gender: M / F Child's DOB: _____

Mother's Name: _____ Mom's DOB: _____

Country of Origin: _____ Years Displaced: _____

Address: _____

Phone Number: _____ Family Size: _____

Single / Married / Widowed / Divorced No. of children under age 3: _____

Highest Level of Education: Elementary / High school/GED / Bachelor's / Master's/Doctorate / N/A

Primary Language in the home: _____

FAMILY ECONOMIC SELF-SUFFICIENCY

1.	Yes / No	Are you receiving TANF benefits? Circle: Medicaid, cash assistance, other
2.	Yes / No	Do you have a Link Card (food stamps)?
3.	Yes / No	List any additional government assistance you are receiving here (WIC?): _____
4.	Yes / No	Are your current resources sufficient to cover monthly expenses?
5.		What are your biggest expenses? Rent / Transportation / Food / Medical Expenses / Technology / Clothing / Home goods / Other: _____
6.	Yes / No	Is someone in the household employed full-time? Start date: _____ Who?: _____ Employer: _____
7.	Yes / No	Is someone in the household employed part-time? Start date: _____ Who?: _____ Employer: _____
8.	Yes / No	Is someone in the household receiving SSI Disability? How many?: _____
9.	Yes / No	Is someone in the household applying for SSI Disability? How many?: _____
10.	Yes / No	Does someone in your household need a job?

		Who?: _____	What type of employment?: Full-time Part-time
--	--	-------------	---

COORDINATION OF REFERRALS (COMMUNITY & FAMILY SUPPORTS)

11.	Yes No	Do you take public transportation?
12.	Yes No	Do you need assistance getting to different appointments? Describe: _____
13.	Yes No	Do you have a primary family doctor?
14.	Yes No	Do your children have a pediatrician?
15.	Yes No	Do you (mother) have a doctor who specializes in women's health?
16.	Yes No	Do you know where your local library is located?
17.	Yes No	Do you know where your local DHS and SSI Office is located?
18.	Yes No	Do you know where your local post office is located?
19.	Yes No	Do you have a church or mosque that you attend regularly?
20.	Yes No	Do you have a local grocery that has all the supplies you need?
21.	Yes No	Do you know where to get other financial resources?
22.	Yes No	Do you need resources to pay for housing, electricity, etc.?
23.	Yes No	Are you interested in continuing your education? What level? _____
24.	Yes No	Do you need information on food banks and clothing supply stores?
25.	Yes No	Do your children need any special resources?
26.	Yes No	Are there any other referrals or resources you need at this time? Please list here: _____ _____
27.		Who do you go to if you have a question about resources? 1. _____ 2. _____ 3. _____ 4. _____ 5. _____
		Which of these do you rely on the most? 1 2 3 4 5

APPENDIX B. BABY TALK PERSONAL ENCOUNTER DOCUMENTATION FORM – HOME VISITING FORM (MEASURE 7)

Baby TALK Personal Encounter Documentation

Open ended questions - **P**ause - **E**ye contact - **R**epeat - **A**void judgment, ask opinion, advise last

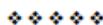
Date of Visit _____ Professional's Name _____

Location of Encounter: home community _____

Parent _____ Child _____ Birth Date _____

Visit included: Child; Mom; Dad; Siblings: _____

Grandparents: _____ Other: _____



Yes | No -- Affiliation/assessment: Did you spend 10 minutes connecting with the family?

Yes | No -- Observation/parent-child interactions: Did you spend 40 minutes observing the parent-child relationship? If not, what did you do? _____

Yes | No -- Planning: Did you spend 10 minutes discussing next steps with the family? If not, what did you do? _____

Regarding child (what are the parents talking about today)? eating | sleeping | crying | development _____

health _____

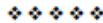
Child's behavior observed: (circle all observed)

Fussing | sleeping | verbalizations | independent play/exploration | guided play/exploration | active | quiet

What meaning do the parents make of the child's developmental behavior (i.e., What do the parents think about the child's behavior)? _____

How has the child's behavior changed the family's life (i.e., is the change welcomed, challenging, exciting, frustrating, etc.)? _____

Parent's reaction to child's behavior: negatively responsive | positively responsive | unresponsive



What interaction did you see between Mom & Child? (circle one number for each behavior observed)

Holding 0 (parent does not have child near or with during visit)

1 (parent has child with or near briefly)

2 (parent is holding or has within arm's length frequently during the visit)

Eye contact 0 (parent does not make eye contact with child during visit)

1 (parent makes eye contact for engagement fewer than 3 times during the visit)

2 (parent uses eye contact as a strategy for engagement with the child frequently during the visit)

Talking to child

Tune in 0 (parent does not/rarely pays attention to what the child is communicating)

1 (parent pays attention to what the child is communicating and responds)

2 (parent pays attention to what the child is communicating and expands on it with more descriptive words)

Talk more 0 (parent uses more directives than child-directed or descriptive words)

1 (parent uses more child-directed and/or descriptive words than directives)

2 (parent uses child-directed and/or descriptive words the majority of the time)

Take turns 0 (parent does not encourage child to respond to words and actions)

1 (parent encourages child to respond to words and actions)

2 (parent encourages child to respond to words and actions and engages in extended conversation)

Baby TALK Personal Encounter Documentation

Calming/comfort 0 (parent makes no attempt to respond to child's stress cues or responds negatively)

- 1 (parent responds to child's stress cues apathetically)
- 2 (parent responds to child's stress cues empathetically)

Smiling/laughter 0 (parent does not smile at or with child during the visit)

- 1 (parent initiates or responds to the child's smile or laughter <=2 times during the visit)
- 2 (parent initiates or responds to the child's smile or laughter >2 times during the visit)

Play Behaviors

Engagement 0 (parent shows little to no interest in the child's play activity)

- 1 (parent will participate in an interactive activity with the child when requested and will maintain interaction)
- 2 (parent initiates interaction with child and purposefully transitions to a new activity when the child demonstrates an interest)

Encouragement 0 (parent makes no attempt to offer verbal or physical support of a child's effort)

- 1 (parent offers some verbal or physical support of a child's effort)
- 2 (Parent offers >4 verbal or physical supports of a child's effort)

Extension 0 (parent makes no attempt to extend the intention of the play activity)

- 1 (parent extends the play activity after being prompted)
- 2 (parent initiates an extension of the play activity)

❖ ❖ ❖ ❖ ❖

What interaction did you see between Dad & Child? (circle one number for each behavior observed)

Holding 0 (parent does not have child near or with during visit)

- 1 (parent has child with or near briefly)
- 2 (parent is holding or has within arm's length frequently during the visit)

Eye contact 0 (parent does not make eye contact with child during visit)

- 1 (parent makes eye contact for engagement fewer than 3 times during the visit)
- 2 (parent uses eye contact as a strategy for engagement with the child frequently during the visit)

Talking to child

Tune in 0 (parent does not/rarely pays attention to what the child is communicating)

- 1 (parent pays attention to what the child is communicating and responds)
- 2 (parent pays attention to what the child is communicating and expands on it with more descriptive words)

Talk more 0 (parent uses more directives than child-directed or descriptive words)

- 1 (parent uses more child-directed and/or descriptive words than directives)
- 2 (parent uses child-directed and/or descriptive words the majority of the time)

Take turns 0 (parent does not encourage child to respond to words and actions)

- 1 (parent encourages child to respond to words and actions)
- 2 (parent encourages child to respond to words and actions and engages in extended conversation)

Calming/comfort 0 (parent makes no attempt to respond to child's stress cues or responds negatively)

- 1 (parent responds to child's stress cues apathetically)
- 2 (parent responds to child's stress cues empathetically)

Smiling/laughter 0 (parent does not smile at or with child during the visit)

- 1 (parent initiates or responds to the child's smile or laughter <=2 times during the visit)
- 2 (parent initiates or responds to the child's smile or laughter >2 times during the visit)

Play Behaviors

Engagement 0 (parent shows little to no interest in the child's play activity)

- 1 (parent will participate in an interactive activity with the child when requested and will maintain interaction)
- 2 (parent initiates interaction with child and purposefully transitions to a new activity when the child demonstrates an interest)

Encouragement 0 (parent makes no attempt to offer verbal or physical support of a child's effort)

- 1 (parent offers some verbal or physical support of a child's effort)
- 2 (Parent offers >4 verbal or physical supports of a child's effort)

Baby TALK Personal Encounter Documentation

Extension 0 (parent makes no attempt to extend the intention of the play activity)

- 1 (parent extends the play activity after being prompted)
- 2 (parent initiates an extension of the play activity)



Tools of conversation (circle all used and add documentation specific to the strategy):

"Tell me about your baby" _____

Using the behavior of the child as your common language _____

parental mastery (did you comment on what the parent could do?) _____

family function (did you talk about issues involving the whole family?) _____

child mastery (did you comment on something the child was able to do?) _____

Curriculum

Baby TALK Activity (list the age and activity) _____

Other _____

Critical issue (what was really important to the family in today's visit?) _____

Time spent today (rank and then given an estimate)? Child only _____

Parent/child interactions _____

Parent only _____

What mention was there of support? (Circle all that apply) baby's mom | baby's dad | grandparents | faith-based | social network | social services | extended family _____

Parent wants info regarding: child's development/education | housing | adult education | employment | medical care | social services | counseling | other _____

Referrals made &/or other follow up:

Referral NEEDED/Date

Referral made/Date

Referral follow-up by professional

Result of the Referral

What was the "emotional temperature" of the encounter at the BEGINNING?

very warm, friendly, welcoming, enthusiastic | warm | cool | very cold, detached, unfriendly, unwelcoming, unenthusiastic

What was the "emotional temperature" of the encounter at the END?

very warm, friendly, welcoming, enthusiastic | warm | cool | very cold, detached, unfriendly, unwelcoming, unenthusiastic

APPENDIX C.1. SAMPLE CURRICULUM – 18 MONTH ENCOUNTER PROTOCOL

18 MONTHS

Preparation

"It is crucial to have the courage to meet every family without preconceptions or prepared programs, to come open-minded and ready to listen not knowing in advance what form our intervention may take."

Donna Karl, NBAS Manual, 1995

Prepare with an open mind.

Recognize what I bring to the interaction.

Gather materials: Baby TALK Developmental Perspectives curriculum for eighteen months, balls, pretend toys (cars, cup, spoon, dish, doll, bottle, blanket), ride-on toy, board books, simple puzzles, blocks, music and collaborator information.

Have additional information ready to meet the specific needs of an individual family.

Assessment

Note the environment and activity level within the community-based encounter setting.

If encounter is at home, assess the environment and availability of other people in the child's life

Assess availability of family.

Affiliation

"The most important non-verbal listening strategy is to pause for at least 3 seconds before speaking after asking a question; it will seem like a very long time, but many studies show that, even for people who have something to say, they may need at least 2 ½ seconds to find it or phrase it."

Napell, 1976, "Understanding Newborn Behavior and Early Relationships," 2007

Use OPERA listening:

- Open- ended questions
- Pause
- make Eye-contact
- Repeat
- Avoid judgment, Ask opinion, Advise last

Use affiliation strategies such as the following involving both Mom and Dad as much as possible:

"Tell me about your toddler."

What new skills have you observed this month?

Social Emotional Growth

How does your toddler react to frustration?

How would you describe the interactions your toddler has with other children?

What does your toddler like to do independently?

What are you thinking about toilet training? Feeling Pressure? Getting advice?

How is your toddler handling separation from you? From others?

Motor Play

What is your toddler's new motor skill "obsession?" Walking? Climbing? Stairs? Running?

Of all the places you visit with your toddler, where does she most like to explore? How do you keep her safe while she is exploring?

Routines

What are your toddler's favorite words? Foods? Books?

What helps your toddler go to bed? Go to sleep?

Baby TALK Eighteen Month Encounter Protocol

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Observation

Simply look at the toddler with the parents for 10-30 seconds.

"Let's just watch your toddler and see how she is exploring."

Do the parents seem receptive to your conversation? If not, why do you think not?

If other adults are present what role do they play? Support vs. "Gatekeeping?"

Observe parent-child relationship:

Does the parent say anything positive about the child's characteristics or about what the child is doing?

How much language is the parent using with the toddler? Turn-taking? Repeating words? Naming objects?

What physical responses does the parent make to the child?

Observe the toddler:

Do you see social referencing?

How does the child attempt to get her parents attention?

Observe parent-child relationship with siblings:

How does the parent show warmth and affection toward siblings?

How does the parent support interactions between siblings?

Developmental Behaviors

Elicit or notice expected behaviors using Baby TALK Developmental Perspectives curriculum for eighteen months.

Elicit or note expected behaviors and the meaning parents are making of the behaviors: advancing motor skills, temper tantrums, curiosity, understanding and/or speaking words, messy play?

How can you support the parent? Modeling? Address concerns?

What is today's critical issue?

When a child demonstrates atypical behavior what are ways I can support the parents?

System of Support

Note who parent "brings into the room" with her during conversations.

Listen for evidence of the support system.

Observe who comes to the encounter with the family or who else is in the home.

If the toddler is in a childcare situation on a regular basis, note parent's interactions and feelings about the caregiver.

What community resources has she used, or might she use?

Baby TALK and System of Care

How can Baby TALK support you? How can I support you?

Introduce Baby TALK services appropriate for this family.

Offer appropriate Baby TALK materials.

Make referrals as needed.

Provide advocacy as needed.

Reflection-On-Action

How do I feel about this encounter?

How did I connect with the family?

What did I learn about the parent/child relationship?

Did I facilitate the parent/infant relationship, or did I just interact with the toddler while the parent watched?

Did I hear or understand a concern from the family that I can follow-up on?

What do I need to document about this family today in order to prepare for the next encounter?

How might I change my approach for the next encounter to "become ever better?"

Documentation

Complete Baby TALK Personal Encounter documentation form.

What sort of record do I need to make to capture this encounter?

What do I need to do to provide follow-up for this family?

How/where will this family encounter Baby TALK in the future?

Baby TALK Eighteen Month Encounter Protocol

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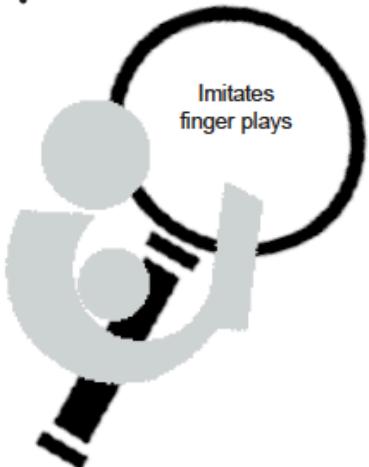
APPENDIX C.2. SAMPLE CURRICULUM – 18 MONTH ACTIVITIES

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BabyTALK Eighteen Month Activities

Let's sing and motion!

- Preparation
- Assessment
- Affiliation
- Observation
- Developmental Behaviors
- System of Support
- Baby TALK System of Care
- Reflection - On - Action
- Documentation



Purpose:
Music is a powerful tool that helps toddlers learn new thinking skills. Using finger plays may help toddlers learn language by increasing vocabulary, learning the sounds of words and hearing the rhythm of language. Finger plays can also enhance large and small motor skills in toddlers by performing movements. Your toddler will also learn memory and social skills by participating in finger plays with you.

Materials: Knowledge of each suggested finger play

Let's wonder together:

- What songs/fingerplays do you already practice with your toddler?
- How does she like this activity?
- How do you think she would feel about trying a new one with you?

Activity:

First, if there is a song she already knows, let's see how she reacts when you lead her in this song.

- What does her reaction tell you?
- Will she try to continue the song when you pause, or will she wait for you to continue?
- Will she try it on her own when you get her started and encourage her to continue?

Next, let's try a new song you can sing and play with her.

- Let's see what she does when you first demonstrate it for her.
- Let's see what she does when you go slowly and encourage her to copy your motions.
- How do you think she likes doing this activity with you based on her reaction?

What do you think about this:

- How do you feel about playing like this with her to work on language, movement, memory, etc?
- How else might you encourage these individual skills? Language, movement, memory?
- Do you think having fun activities is different for you and for her in addition to every day activities?

Illinois Early Learning Guidelines Standard(s):

7-18 months Physical Development & Health

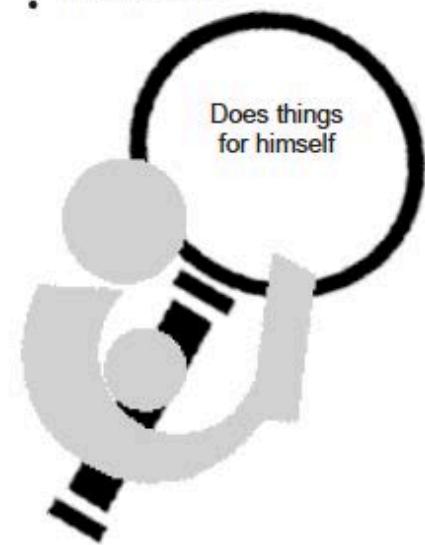
Fine Motor

Participates in finger plays, e.g., moves hands to imitate caregivers hands when singing "Twinkle, Twinkle, Little Star"

BabyTALK Eighteen Month Activities

I can do it by myself!

- Preparation
- Assessment
- Affiliation
- Observation
- Developmental Behaviors
- System of Support
- Baby TALK System of Care
- Reflection - On - Action
- Documentation



Purpose:

The older your toddler gets, the more she realizes she's her own individual, separate from you. With her growing sense of self comes a growing need to do things on her own. Although your toddler may still seek out assistance from you, you may also find that she is doing more and more by herself!

Let's wonder together:

- What activities does your toddler like to do by herself?
- What activities would she really like to do on her own but isn't able yet?

Activity:

Let's see how she does when she tries to take off and put on socks.

- First, try helping her do this.
- Does she seem to want your help?
- What will she do if you encourage her to do this on her own?
- What else could you encourage her to do on her own right now?
- Is her reaction similar or different than what you typically see?

What do you think about this:

- Do any of the activities she is trying to do on her own make you worried or uncomfortable? Which ones?
- How does it feel for you when your toddler says something like, "No. I do it myself" ?
- How have you or might you make changes to your routine to allow her to try things on her own?
- How do you think your role and being "needed" will change over the next several years?

Illinois Early Learning Guidelines Standard(s):

16-24 months Social & Emotional Development

Self-Concept

Asks for help from familiar adults but may begin to attempt to complete tasks autonomously

BabyTALK Eighteen Month Activities

- Preparation
- Assessment
- Affiliation
- Observation
- Developmental Behaviors
- System of Support
- Baby TALK System of Care
- Reflection - On - Action
- Documentation



If I want it, it's mine; if I see it, it's mine; if I had it, it's still mine!

Purpose:

Many toddlers are very possessive over their belongings, which is perfectly normal. They are starting to pay attention to things that belong to them and understand the idea of ownership. For a toddler, possession is everything. Having an object in her hands means it's hers. Likewise, if someone dares to pick up her blanket, she may be quick to want it for herself.

Let's wonder together:

- When does your child have the opportunity to play with other children around her age?
- What do you see during these times related to 'sharing' toys?
- What items does she seem most possessive of? Why do you think that is?

Activity:

Let's see what your toddler does when you play with some of her favorite things.

- What things would you like to use?
- What will she do if you hold on to something and say "mine"?
- How do you think she feels about this?
- How will she react if you tell her you want to share and offer it to her?
- What do you think she will do if you ask for it back?
- How is her behavior the same or different than what you typically see?

What do you think about this:

- How do you feel about this age and her not wanting to share with others?
- How do you think she feels when others take things from her or do not share something she wants?
- What are some strategies you use or might start using to deal with this phase?

Illinois Early Learning Guidelines Standard(s):

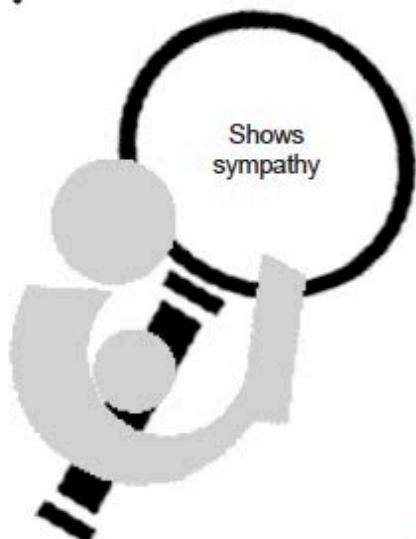
16-24 months Social & Emotional Development

Relationship with Peers

Expresses frustration when another child takes something away from him or her, e.g., a toy

BabyTALK Eighteen Month Activities

- Preparation
- Assessment
- Affiliation
- Observation
- Developmental Behaviors
- System of Support
- Baby TALK System of Care
- Reflection - On - Action
- Documentation



If you cry, I will give you a hug

Purpose:

Learning sympathy requires moving from a personal view to the viewpoint of another person who is in need. Toddlers will start to show sympathy to others, like hugging a crying child or upset parent because they may feel sorry for that person. This comes before empathy, which is fully understanding what another is feeling.

Let's wonder together:

- When have you noticed your toddler showing sympathy for someone else who seems sad or hurt?
- How does she show her sympathy?
- Does she express sadness, give hugs, or simply stop what she is doing and observe?

Activity:

- What would you like to use to pretend play with your toddler? A stuffed animal or a doll?
- First, pretend that the animal or doll is happy.
- Talk about how happy it is and use some words to name the emotion of happiness.
- How do you think she feels right now?
- Now try pretending the animal or doll is hurt or feels sad.
- What are some words you can use to describe this?
- How do you think your toddler feels now?
- What if you give some hugs and offer for her to do the same?
- What are some words you can use to describe what your child is doing?

What do you think about this:

- How do you tend to show emotion?
- What do you think she picks up from you?
- How does it make you feel as a parent to see your child being loving and kind?
- Have there been times when you wished she would've showed more or less emotion? When?

Illinois Early Learning Guidelines Standard(s):

16-24 months Social & Emotional Development

Empathy

Imitates comforting behaviors from caregiver(s), e.g., pats or hugs a child when upset

APPENDIX C.3. SAMPLE CURRICULUM – 18 MONTH DEVELOPMENTAL PERSPECTIVES

18 MONTHS



Your Toddler...

- Comes to you for assistance, comfort and approval
- Shows sympathy
- Says "no"
- Is possessive of toys
- May have temper tantrums
- Does things for himself
- Reads with you, especially books with repeating phrases
- Takes off shoes when unlaced

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BabyTALK Developmental Perspectives

18 MONTHS

As a toddler:

As soon as I wake up in the morning, I notice my diaper is wet. That is a yucky feeling. I get a diaper and take it to Granny as soon she lifts me out of my crib. She may not know that I feel so yucky and need changed.

After I get my clean diaper on, I try to put my clothes on all by myself. I am still having a really hard time with that, though! After I try for a while, I usually take my clothes to Granny, and she helps me. She tells me that if I keep trying, I'll be able to get them on all by myself one day! I know she's right because that's what happened with taking off my shoes!

Did you hear that! I can take off my very own shoes. When my Granny and I come home from making lots of stops in her car, we take our shoes off and leave them on a rug by the front door. Granny says that keeps the floors cleaner. She used to take my shoes off for me, but I stopped letting her. She smiles so big when I pull off my shoes. It's really easy to get them off, unless they have laces. Then I have to pull extra hard. But I am so pleased with myself that I don't need help with that anymore!

I am so big now that my big sister even started letting me play with some of her baby dolls. She has three of them. Whenever I am playing with the great big baby, she tries to take it and give me one of the little ones. I do not like that and tell her, "No!" I hold onto that big doll very, very tightly, but sometimes she pulls it right out of my hands. Boy, do I ever yell and cry when that happens. And my big sister doesn't even seem to care. I think I need to learn more about the word "share" that I keep hearing big people say whenever this happens.



18 MONTHS

As a parent:

At playgroup this morning, I saw my eighteen-month-old daughter do something that made me so proud. A little boy was playing with some blocks, and a little girl came up to him and took some away. He was right in the middle of building a tower, so I understood when his face melted and he started crying. I don't think for a minute the little girl meant to be mean; she just wanted the blocks and took them like toddlers do. My daughter was upset by this boy's sadness and went to him and hugged him. She isn't usually very outgoing, but she just had to offer comfort and empathy to this boy. I am so proud of her for being tenderhearted. I'm not saying my daughter is never the kid that starts the fight at playgroup, but today I was fulfilled to see her show kindness.

On the other hand, I was talking to one of the moms who was sharing with me her concern about her daughter. She fears she is a bully. I told her I don't think children this age mean to be, or even can be, bullies. I think she is wise to discipline and explain to her daughter why we don't take toys from other children, or hit or bite. But these are things to be learned. Toddlers don't innately have manners; we all must learn right from wrong. It is important though, that the mom was concerned.

These two experiences made me think about temperament. Is my daughter just naturally kind? Has she learned by example? Maybe she was just experimenting to see what would happen. Or maybe she just gets frustrated from not having the words to express her feelings. There is so much to learn from people so tiny. It seems to me that we each must parent our child according to who they are.



18 MONTHS

Reflection

LEARNING TO PLAY WITH OTHERS

Your eighteen-month-old's social-emotional development is happening right before your eyes. She has gone from only being concerned about her interests to being aware that other people have feelings too. A toddler is still very possessive of his belongings, or any he picks up and decides are his. He has a hard time sharing because he is still very busy with the job of becoming his own person. It is important, however, to give him the opportunity to play with other children. This is how he learns and uses playing to test his new thinking skills. He not only enjoys imitating you, but now also learns by imitating other children. Your toddler will not interact and cooperate in play with another toddler. Instead he will play alongside another child and imitate their behavior. Toddlers playing together need constant supervision, so be prepared to step in to help your child navigate these new peer relationships.

AGGRESSIVE BEHAVIOR

It is important to understand that all children try out different types of aggressive behavior. It is developmentally appropriate and usually begins out of exploration, not anger or a mean spirit. At certain ages they bite, hit, lie and pinch without any bad intentions. If adults react too strongly, the child may continue these inappropriate behaviors to test the adults. Biting may be nothing more than some wanted comfort for swollen gums and new teeth. Hitting another child may be nothing more than trying to get that child's attention. Don't act horrified, and don't make your child feel you are disappointed in her. You must guide her by setting limits and explaining that these behaviors are unacceptable. Don't assume, and never say, your child is bad.

INDEPENDENCE

Many parents of eighteen-month-olds struggle with their child's stubbornness. She may want to do everything herself. When she has her heart set on performing a task, give her ample opportunities to try whatever it is she wants to do. You know she can't tie her own shoes, so start that challenge long before you really have to leave the house. That way you won't feel rushed or late, and she will have had the chance to sit on the floor trying to make it happen. She will realize on her own that she can't. Afterwards you can say, "That was such a great try. This time let Mommy help, and you can try again later."

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18 MONTHS

Our Professional Opportunity...

Sometimes loving, sometimes combative, eighteen-month-olds begin to call up concerns in their parents about how they will interact with other people in the wider world. Now is a time for you to observe and reflect on how parents perceive their child's interactions with other children.

Group situations often bring out new behaviors in toddlers that parents may not have observed at home. Parents are proud when they see their children interact well, and horrified when they see behavior that borders on the anti-social. When a child bites or hits or takes away a toy, you may observe one parent look the other way, seemingly unconcerned about this behavior. This parent may have a hard time facing up to the fact that her child is capable of wrong-doing, or she may simply have no idea about how to manage the situation. In the same group, you may observe another parent who over-reacts wildly to these common toddler behaviors. Horribly embarrassed, she creates a bit of a scene as she corrects her child. What a challenge you face in figuring out how to support parents who respond so differently to the same behavior.

Of course, you will use the behavior as your language as you quietly observe, "Oh, Amanda—I believe Evan was playing with those blocks." This will be a cue for Amanda's mother to notice this behavior and become involved with it. Your kind understanding of Amanda's actions may support the parent in an appropriate response to her daughter. On the other hand, if Amanda's mother flies from her seat to grab Amanda and lecture her about taking the blocks, you might observe, "Amanda, you saw how much Evan was enjoying the blocks and thought you'd like to play, too. Here are more blocks, enough for everyone." In this case, Amanda's mother may realize Amanda didn't have a malicious intention for taking the blocks, but simply wanted to play.

Parents of toddlers often observe their children's behavior and then assign meaning for that behavior as it would apply for adults. If an adult takes something that belongs to another, he is certainly conveying a lack of respect. But toddler's motivations are far more basic, as they are not yet aware of the impact of their actions on others.

You can affirm the parent's desire to help her child learn how to treat others, but show your own understanding of the fact that there is a great deal for toddlers to learn about interaction. They will certainly make many mistakes on the road to learning it.

In the midst of the antisocial behaviors, you will begin to see glimpses of true empathy emerge in children. When a group of parents and children gather, you will see acts of kindness among the little ones if you watch carefully. Pointing these out in a public way will encourage parents that their children have the capacity for learning how to be positive in their interactions with others. Parents will also begin watching for these loving gestures and will notice and encourage them in their children when they happen.

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BabyTALK Developmental Perspectives

APPENDIX D. 4-DAY BABY TALK CORE TRAINING AGENDA

Baby TALK
Professional Development Training

Day One: Mission

Welcome and Introductions

Baby TALK's "Trustworthy System of Relationships"
Introduction of Critical Concepts

Break

Observation of Baby TALK Times in Program Room

Relationships 101: Assumptions about Infants and Toddlers

Lunch with discussion around the Critical Concepts

Debrief lunch discussion

Relationships 201: Trauma, Stress and Resiliency

Break

Read For Joy!
Why do words matter?

Wrap Up Reflection



Day Two: Model

Welcome and Reflections on Day 1

Observation of Parents and Children

Baby TALK's Approach to Families

Community Site Visits

Observation of Personal Encounters

Prenatal Clinics and Hospital OB

Universal Screen

Lunch

Debrief about community sites

Curriculum Overview

Break

Home Visiting: Putting it all together

Role Play/Scenarios

Wrap-up Reflection



Day Three: Method

Welcome and Reflections on Day 2

Building a Baby TALK System

Community Site Visit Wabash Area

Outreach Screening

Community Site Visit at Central Christian Church

STEPS & Family Literacy

Collaborators Lunch

Facing Difficult Issues

What difficult conversation do you need to have NOW?

Break

Documentation

Program Families and Baby TECH

Practical Application

Role Play

Wrap-up Reflection



Day Four: Motion!

Opening Reflection

Greek Chorus

Role Play Difficult Issue

Becoming Ever Better as Leaders

The Professional's Trustworthy System of Support

Strategic Planning Process

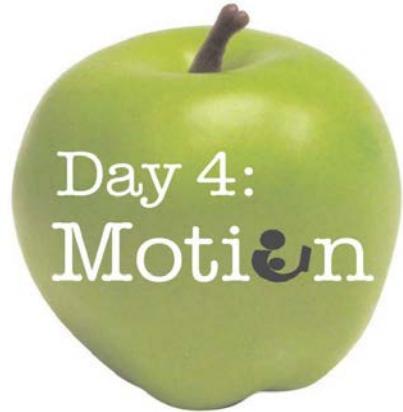
Working Lunch

Report and Celebration of Plans

Now the work begins, but you are a part of the Baby TALK system of support

Certification Ceremony

Fond Farewell



Baby TALK 4-Day Core Training: Training Objectives			
Training Concept	Learning Objectives- By the end of this training participants will be able to:	Training Stage: Continuum of skill development 1-5	How participants progress toward meeting the objectives will be assessed by:
(<i>BT Model in 12 words</i>) <ul style="list-style-type: none"> • Build a System • Screen Every Family • Identify the Need • Deliver Appropriate Service 	<i>Define</i> the 12 words that describe the Baby TALK Model; <i>Apply</i> the Model within different systems of care; <i>Relate</i> the Model to current service delivery/systems in their own center or community	Stage 1 Stage 1 Stage 2	Lecture and large group discussion
(<i>9 critical concepts</i>) <ul style="list-style-type: none"> • “Tell me about your baby” • Going Where Families Are • Coming Alongside • Building Relationships • Collaborations • Systems Building • Parallel Process • Facing Difficult Issues • Becoming Ever Better 	<i>Define</i> Baby TALK’s Critical Concepts; <i>Apply</i> the Critical Concepts across agencies/disciplines; <i>Contrast</i> these critical concepts with current underlying principles of their work with families	Stage 1 Stage 2 Stage 3/4	Lecture and large group discussion Small group discussion Discussion of Scenarios, videos, and role play
(<i>4 layers of relationships</i>) <ul style="list-style-type: none"> • Parent/Child • Parent/Professional • Professional/Collaborator • Professional/Professional 	<i>Identify</i> the 4 layers of relationships which comprise Baby TALK’s Trustworthy system of support; <i>Analyze</i> their role in each one of the relationships within their work environment.	Stage 1 Stage 2	Lecture and large group discussion
“Gatekeeping”	<i>Define</i> the use of “Gatekeeping” within the context of their work environment; <i>Examine</i> their practice	Stage 1 Stage 2/3	Lecture and large group discussion Hands-on-activity

	/approach to families for possible “Gatekeeping”		
“Assumptions about infants and toddlers” Developmental tasks of infants and toddlers and behaviors that accompanies each skill	<i>Relate</i> the assumptions about infants and toddlers to current practice; <i>List</i> the developmental tasks of infants and toddlers; <i>Recognize</i> the internal and external forces behind development; <i>Interpret</i> the meaning of developmental behaviors in the context of encounters with parents	Stage 1/2 Stage 1 Stage 1 Stage 3/4	Lecture and large group discussion Small group discussion/Hands-on-activity Lecture Lecture, small group discussion and hands-on-activity
Relationships--Engagement, trust, vulnerability, listening	<i>Identify</i> behaviors/practices of a trustworthy relationship; <i>Explain</i> the difference between watching and observing; <i>Practice</i> listening skills;	Stage 1 Stage 2	Lecture and large group discussion Pair and share, large group
Engaging parents in early literacy in the home	<i>Recognize</i> developmental behaviors in infants and toddlers related to books	Stage 1	
Making use of the opportunities we have with parents using protocol template for having personal and group encounters—join the family system of care	<i>Define</i> listening skills needed to begin affiliation with family; <i>Document</i> information on personal encounter form; <i>Analyze</i> developmental information and formulate an encounter with a family using the information and the corresponding encounter protocol; <i>Reflect</i> on video	Stage 1 Stage 2 Stage 3/4 Stage 5	Lecture and large group discussion Lecture and large group discussion Small group discussion and hands-on-activity Large group discussion, small group discussion and hands-on-

	footage of an encounter and a role-play		activity
Use of curriculum to support the parent/child relationship	<i>Review</i> curriculum in print and electronic versions; <i>Analyze</i> curriculum for future use with families	Stage 1 Stage 3	Lecture and large group discussion Small group discussion and hands-on-activity
Building a “Baby TALK system” System of communication and integration within your center Collaboration within your community	<i>Develop</i> a framework for implementing the Baby TALK system; <i>Define</i> community; <i>Identify</i> potential partners within the system		
“Facing Difficult Issues” Child’s development, child’s behavior, parent’s behavior, professional’s behavior	<i>Describe</i> behaviors which present challenges in service delivery; <i>Articulate</i> role of professional in discussions of challenging behaviors	Stage 1 Stage 2	Lecture and large group discussion Lecture and large group discussion
“Becoming Ever Better” Reflective Practice Professional Growth Plan	<i>Identify</i> characteristics of a reflective professional; <i>Practice</i> reflective journaling; <i>Describe</i> components of professional growth; <i>Identify</i> and analyze professional strengths and areas of challenge; <i>Create</i> growth plan action steps	Stage 1 Stage 2 Stage 1 Stage 2/3 Stage 4	Lecture and large group discussion Hands-on-activity Lecture and large group discussion Hands-on-activity

APPENDIX E. BABY TALK PROFESSIONAL SUPPORT SERVICES

Professional Development. The Baby TALK Professional Association (BTPA) was established in 2006 to support professionals in the field. After participating in Core Baby TALK Training, professionals become "Certified Baby TALK Professionals" with the BTPA serving as a collaborative of all professionals using Baby TALK methods and materials in their work with young families. By systemizing communication through phone contacts, web-based services and listservs, the intention of the BTPA is to provide ongoing support and resources to our colleagues. Since its establishment, BTPA professionals have been an integral part of ongoing continuous improvement efforts as well. The BTPA Annual Learning & Networking Series, hosted by Baby TALK, is comprised of a fall Annual Meeting as well as two additional regional meetings (See Appendix F for a sample BTPA yearly schedule). Topics for learning and opportunities for networking have included:

- Themes related to socio-cultural traditions surrounding parenting and how professionals may use this knowledge to effectively partner with families
- Effective partnering from the very beginning: Working with families with newborns
- Relationships as environment: Impacts and resilience factors related to toxic stress
- Model Fidelity/Self-Assessment
- Early Learning Guidelines: Tools and understanding of standards' indicators and strategies for engagement
- Supporting Parental Mastery: Observation and finding buried treasure
- The use of observational tools HOVRS A+, PICCOLO
- Quality: Characteristics, Process, and Product for quality certification

In addition to these learning opportunities, site visits are an integral component of support for programs implementing Baby TALK. Baby TALK approaches site visits using the parallel process as programs provide support for families. Learning Institute Model experts are assigned program sites and implement a case management approach in providing the site consultation based on the program's needs. All programs receive an annual visit, while new programs receive two or more visits as needed. For out-of-state professionals, the BTPA offers remote support.

Technology Support Services. In 2007, Baby TALK, Inc. launched BabyTECH, a web-based application developed to support programs using the Model. The software allows Baby TALK service providers to easily document, track, report, and research their services to families, all within one database. Features include:

- Reporting procedures that are universal but match state education reporting requirements
- Secure log-ins for employees, supervisors, and administrators
- Allows agencies to track personal and group encounters
- Tracks intensive services to families
- Print/Manage mailings

The software also allows Baby TALK, Inc. to pull data from the various programs using BabyTECH nationwide to track trends and service outcomes lending further opportunities to understand the Model's impact on families.

Model Fidelity and Self-Assessment Instrument. In 2012, Baby TALK developed the Baby TALK Model Fidelity Self-Assessment Tool (BTMFSA) to ensure programs implement the Baby TALK Model as the Model developers intended. The model fidelity instrument was created in collaboration with Baby TALK professionals across our network and Dr. Aimee Hilado, and initially vetted and improved with feedback from Baby TALK staff over a 6-month period. Once the tool was refined, there was a statewide implementation process in Illinois, starting with selected professionals in 16 programs that were grouped into six cohorts. This process of peer-to-peer support, reflection, and proposed revisions enhanced and vetted the draft of the Model Fidelity Self-Assessment Tool even further. In doing so, it assured both Baby TALK model developers and the Baby TALK professionals that there was a co-developed model fidelity instrument that accurately reflected both the conceptual framework of the developers and the real practice experiences of professionals in the field. The result was an effective, supportive tool for understanding programs' strengths and potential areas for growth based on core Model components. Subsequently, existing and new programs have completed the BTMFSA, and a version was developed with the same learning group methodology for center-based professionals. To date, over 100 professionals have completed the BTMFSA with follow-up consultation and reflection.

Quality Assurance Measures. A component of the Baby TALK Model is to support mastery among trained professionals with this concept of "becoming ever better." Building on the development of the model fidelity/self-assessment instrument, in 2014 Baby TALK began the process of further defining and refining what it means to have true quality programming necessary for effective early childhood home visiting services. This effort began with statewide focus groups with Baby TALK professionals who defined quality standards related to the Model, and what was understood as high-quality early childhood programming and intervention services in the field and literature. Alongside Model developers and staff, the groups determined the key Model components that should be evaluated and a systematic way of documenting quality in diverse service settings. The methods of evaluation were closely considered as well to ensure the methods of observations would remain true to the Model framework and what is documented as best practices in the literature around quality assurance measures. At the conclusion of three open team meetings, Baby TALK staff across the network produced a Quality Assurance instrument that reflected quality standards, measures, and updates to existing template program forms to better enable the ongoing capture of key quality data measures. The tool includes 64 quality standards, with six foundational standards required for programs to be considered Quality Confirmed. Programs are expected to complete the Baby TALK Quality Confirmation (BTQC) review by trained Baby TALK Quality Specialists every 3 years. This includes preparation in a cohort format across three webinars so that professionals have an opportunity to discuss and understand the expectations for each standard's evidence. Subsequent to preparation, each site schedules a day for on-site for Baby TALK Quality Specialists to complete the BTQC through observation, interview, and gathering of evidence. Results are reviewed and reported back to program leaders through a strength-based narrative within a three month period from the date the instrument is completed. To date, Baby TALK has completed the Quality Confirmation Process

with nineteen programs, with an aggressive schedule to complete the process for all home visiting programs delivering intensive services to families.