

“Talking Is Teaching: Talk, Read, Sing” Early Literacy Intervention at Tulsa Birthing Hospitals

SO SMALL TO FAIL



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ABOUT TOO SMALL TO FAIL

Too Small to Fail is leading a public awareness and action campaign to promote the importance of early brain and language development and to support parents with tools to talk, read, and sing with their young children from birth. Today, almost 60 percent of children in the United States start kindergarten unprepared, lagging behind their peers in critical language and reading skills. Through partnerships with pediatricians, hospitals, faith-based leaders, community based organizations, businesses, entertainment industry leaders, and others, *Too Small to Fail* is meeting

parents where they are to help them prepare their children for success in school and beyond. Whether at the pediatrician's office or the playground, *Too Small to Fail* aims to make small moments big by creating opportunities for meaningful interactions anytime, anywhere. Learn more at toosmall.org. Find resources for parents and caregivers at talkingisteaching.org or on Facebook (facebook.com/2smalltofail), Twitter ([@2SmalltoFail](https://twitter.com/2SmalltoFail)), and Instagram (instagram.com/2smalltofail).

Too Small to Fail is a joint initiative of the Clinton Foundation and The Opportunity Institute.



"Talking is Teaching: Talk, Read, Sing" is a public awareness and action campaign led by *Too Small To Fail*. This report summarizes the findings of an intervention intended to boost early literacy awareness and behaviors among parents of young children in Tulsa, Oklahoma. The evaluation was conducted by the Child and Adolescent Development Lab at the University of Oklahoma in collaboration with the Parent Child Center of Tulsa.



CAD LAB

EXECUTIVE SUMMARY

Too Small to Fail is leading a public awareness and action campaign, “Talking is Teaching: Talk, Read, Sing,” to promote the importance of early brain and language development and to support parents with tools to talk, read, and sing with their young children from birth.

The George Kaiser Family Foundation and *Too Small to Fail* have partnered on a community-wide Talking is Teaching campaign in the Tulsa region for several years. This report summarizes the evaluation of an intervention at local birthing hospitals, part of the broader campaign, in which nurse educators met with new parents to provide a brief educational session and toolkit of early literacy materials developed by the Talking is Teaching campaign.¹ In addition, parents in the region who subscribed to the *text4baby* service provided information about their knowledge, attitudes and behaviors on early literacy. The evaluation also includes a comparison of parents who used *text4baby* only to those who used the service and met with a nurse educator.

Conducted by the Child and Adolescent Development Lab at the University of Oklahoma, the evaluation found promising initial findings:

Knowledge and Attitudes

Tulsa parents have very positive attitudes about talking, reading, and singing to babies.

- Nine in ten parents surveyed agreed that it is “important” or “very important” to talk, read, and sing to babies.

Talking is Teaching campaign activities reinforce one another.

- Compared to parents who used *text4baby* only, caregivers who met with a nurse educator were more likely to report getting information about talking, reading, and singing to babies from other sources, including Head Start centers and billboards, in addition to the hospital.

Behavior

The educational session and toolkit positively influences parents’ early literacy behavior.

- Six in ten parents (62%) stated that the toolkit made a difference in the way they interact with their children.
- Promising initial evidence suggests that parents who received the toolkit engage in more early literacy behaviors as their children get older. Parents who met with a nurse educator showed a dramatic increase in talking with their children during meals.
- When compared to parents who used *text4baby* only, parents who received the toolkit and *text4baby* were more likely to do things like talking while changing diapers and repeating their baby’s sounds.

Materials

Parents are enthusiastic about the Talking is Teaching toolkit.

- In an interview, one mother said, “I thought it was really nice that somebody put together this bag and brought it to me.”
- The baby towel and children’s book were the most useful parts of the toolkit.

Future Considerations

Some parents were less likely to agree that it is important to talk and to sing to babies, suggesting an ongoing need to promote awareness about the benefits of meaningful engagement with children from birth.

- Latino/a and African American caregivers were less likely to agree that it is important to talk with babies, and younger parents were less likely to agree that it is important to sing to babies.

Some mothers noted that it is challenging to engage with nurse educators in the hospital.

- In interviews, several mothers noted that it was difficult to fully engage with the nurse educator immediately after the birth of their child.

INTRODUCTION

The George Kaiser Family Foundation and *Too Small to Fail* have partnered on a community-wide Talking is Teaching campaign in the Tulsa region for several years, including public service announcements through local media and community-based interventions for parents and caregivers.

This report summarizes the evaluation of an intervention intended to boost early literacy awareness and behaviors among parents of newborn children in Tulsa, Oklahoma. “Talking is Teaching: Talk, Read, Sing” is a public awareness and action campaign intended to equip parents and caregivers with the tools they need to increase early brain and language development among children ages 0 to 5. One strategy of the campaign is to enlist the help of trusted messengers to relay information about early literacy and brain development, and to motivate parents and caregivers to engage in language-rich interactions with their young children starting at birth.

From December 2015 to December 2016, nurse educators affiliated with the Parent Child Center of Tulsa met with parents within the first few days of their child’s birth to provide a brief educational session about the importance of talking, reading, and singing with children, accompanied by a toolkit of materials that they modeled using for parents. Study participants represent a broad spectrum of the community, as demonstrated by their formal education level, race/ethnicity, and household income. (See the Appendix for detailed information about study participants.)

The Talking is Teaching toolkit shared with parents included a canvas bag and a baby towel or blanket with campaign messaging and prompts for parents, a children’s book, a Sesame Guide for Parents with Milestones Cards, a t-shirt or onesie, a Sesame Silly Songs CD, a *text4baby* post card, and a Sesame Street Word on the Street cards.

Consenting individuals were interviewed by nurse educators just before receiving the toolkit and educational session in the hospital, and completed a survey provided by university researchers 6 weeks and again at 6 months after the initial session.² One hundred sixty five (165) parents completed all three. In addition, researchers conducted more in-depth interviews with 19 mothers of children ages 0-14 months who received the Talking is Teaching toolkit at the hospital. See the Appendix for more information about the study methodology.

This study offers a first-of-its kind comparison to similar families. During the same period as the study with nurse educators, university researchers collected information from expecting and new parents in the Tulsa region who were using the *text4baby* app. This sub-study allows for comparisons in knowledge, skills and behaviors among parents who used *text4baby* and met with a nurse educator and parents who used *text4baby* only.

We note that there are relatively small sample sizes in this study, generally between 100-200 participants, depending on the data point. This is common in applied research studies, in which researchers ask busy people to take time to offer their input over multiple touch points. As a result, we offer this brief as a summary of positive initial results of the benefit that the Talking is Teaching toolkit and educational session offers to families. Where applicable, we note where findings are statistically significant.



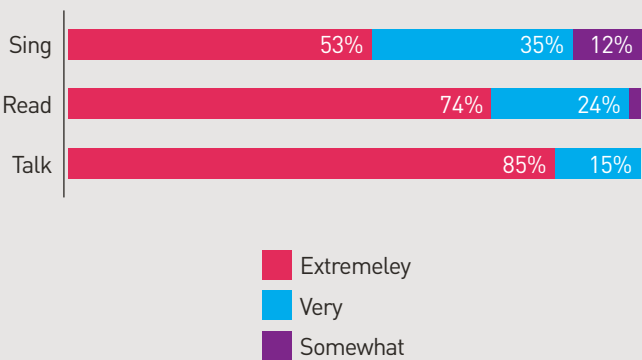
PARENTS' BELIEFS ABOUT TALKING, READING, AND SINGING

Parents who received the Talking is Teaching toolkit and educational session reported very positive attitudes toward talking, reading, and singing to their baby when interviewed during their stay in the hospital. Nine in ten respondents indicated that it was either “very important” or “important” to do so.

Researchers found some variation in caregivers’ beliefs about talking, reading, and singing to babies, which point to additional community education opportunities. For example, Latino/a and African American caregivers were less likely to agree that it is important to talk with babies, and younger parents were less likely to agree that it is important to sing to babies. These modest, but consistent, differences suggest that more can be done to build caregivers’ knowledge and attitudes toward talking, reading, and singing to babies starting at birth.³

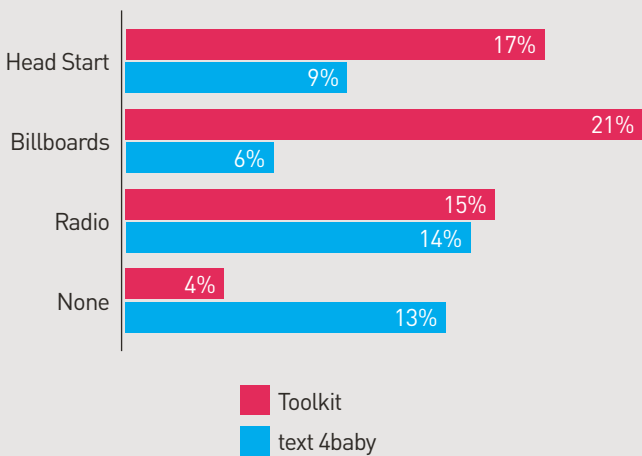
Data from the *text4baby* app users in the region indicates that the Talking is Teaching toolkit and educational session made parents who met with a nurse educator more aware of other educational campaigns in the region. This “priming effect” can enhance the effectiveness of complementary activities like efforts at Head Start centers, billboards, and radio messages, all part of the broader regional efforts to encourage families to talk, read, and sing to their babies. These results suggest that campaign activities mutually reinforce one another.

Fig 1. How important is it to talk, read, or sing to babies?



Source: In-hospital surveys with parents immediately before toolkit receipt, n=918.

Fig 2. Where have you learned about the importance of talking, reading, and singing to babies?



Source: Follow-up surveys with parents 6-8 weeks after toolkit receipt, n=307; text4baby survey of local app users, n=357.

CHANGES IN PARENTS' EARLY LITERARY BEHAVIORS

Parents report that the Talking is Teaching toolkit positively influenced their early literacy activities with their babies. Parents' self-reported early literacy behaviors suggest that they are more likely to talk, read, and sing with their children as they grow older, though this is likely due to a variety of factors. Data from the *text4baby* app users suggest that families who received the toolkit in addition to *text4baby* are more likely to engage in critical early literacy behaviors, like repeating sounds and telling stories.

Toolkit recipients engaged in more early literacy behaviors over time

Adults can help very young children build early literacy skills through a variety of behaviors, like talking about what they are doing, repeating sounds the baby makes, playing games like patty-cake, and telling stories. Researchers asked parents who received the toolkit about a variety of early literacy behaviors twice; once 6-8 weeks after their child was born and again when their baby was 6-8 months old.

Parents who received the Talking is Teaching toolkit were notably more likely to frequently engage in early literacy behaviors with their 6-8 month old, most especially talking with their baby during meals. It is important to note that these changes are affected by

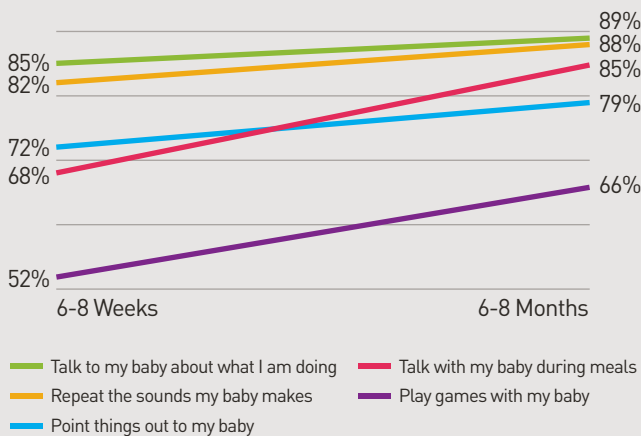
multiple factors, including encouragement parents receive from nurse educators and changes in babies' ability to engage with others as they get older. The large increase in the proportion of caregivers who talk with their children during meals is especially notable, however. These are encouraging initial results, but not a definitive measure of the impact of the toolkit on parents' behavior.

Parents who received a toolkit and used *text4baby* were more likely to engage in early literacy behaviors than other *text4baby* users

As noted earlier, University of Oklahoma researchers conducted a study of families that used the *text4baby* app who lived in the broader Tulsa region. Of these families, a small number also received the Talking is Teaching toolkit, allowing a comparison among families that used *text4baby* and received a toolkit and those who used *text4baby* only.

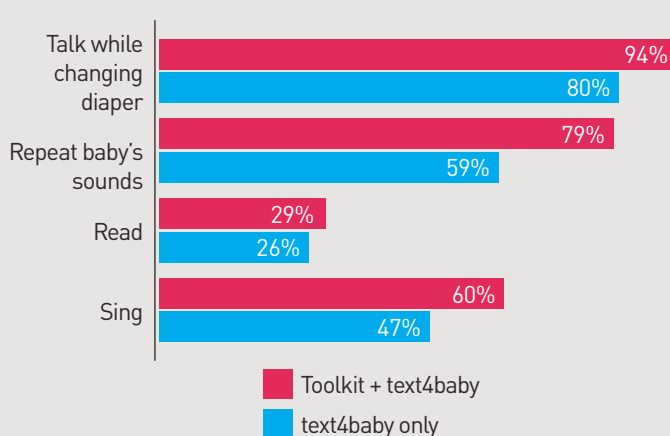
Due to very small sample sizes, these results are preliminary, but suggest that families that received the Talking is Teaching toolkit and educational session in addition to *text4baby* were more likely to engage in early literacy behaviors with their babies, like talking while changing a diaper and repeating baby's sounds. These differences are statistically significant.

Fig 3. Changes in the Frequency of Early Literacy Activities



Source: In-hospital surveys with parents immediately after toolkit receipt and follow-up surveys with parents 6-8 weeks after survey receipt. (n=166)

Fig 4. Proportion of parents who engage in early literacy behaviors more than once a day



Source: *text4baby* responses among families that received a toolkit (n=62) and those who did not (n=75). Differences are statistically significant.

USEFULNESS OF THE TALKING IS TEACHING TOOLKIT AND EDUCATIONAL SESSION

Parents’ opinions regarding the usefulness of the Talking is Teaching toolkit and in-hospital educational session come primarily from one-on-one interviews conducted with 19 mothers. Additional information is drawn from study participants’ responses to follow-up surveys.

Parents are enthusiastic about the Talking is Teaching toolkit

Overall, parents who received the Talking is Teaching toolkit were enthusiastic about its contents. One mother said, *“I thought it was really nice that somebody put together this bag and brought it to me.”*

Another mother expressed her excitement:

“I really liked it, because when my other children were born, they wouldn’t give you this bag. When they come to your room and give you that bag, it’s something very special, a gift for you, after you have had your baby. I started to take the things out of the bag and I got all excited, I saw [the T-shirt] and thought, ‘Well it’s a little too big, but one day he will wear it.’”

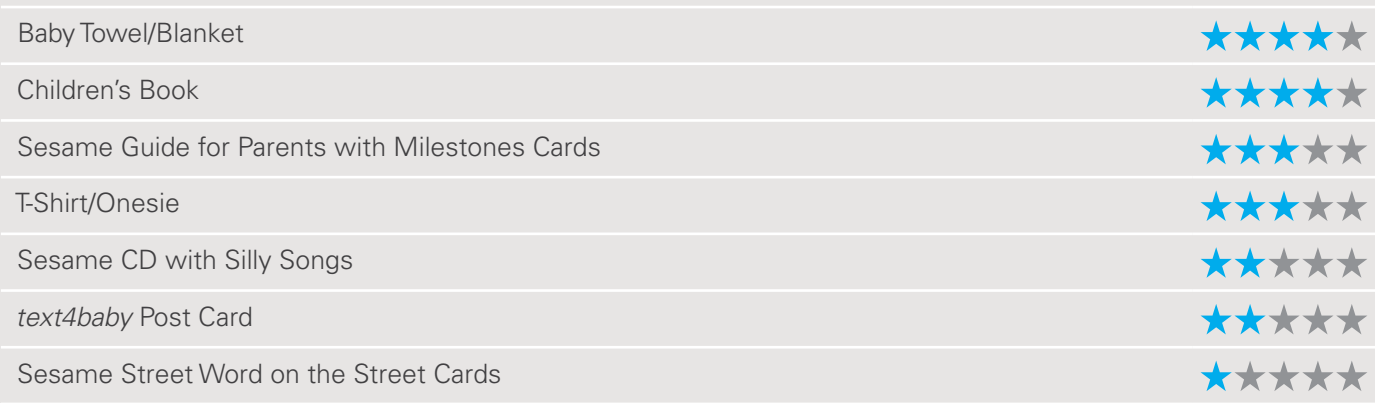
The baby towel/blanket and children’s book are the most useful parts of the toolkit

When asked to rate the usefulness of the different Talking is Teaching toolkit materials, parents gave the most favorable ratings to the baby towel/blanket and children’s book.⁴ The next most highly rated materials include the Sesame Guide for Parents and t-shirt/onesie.

Mothers’ comments in face-to-face interviews underscore the larger group’s ratings. About the baby towel, one mother said, *“People don’t give you baby towels at baby showers; I got lots of blankets, but not towels.”* All of the mothers used the towel and many considered it to be the most useful item because they go through *“a lot”* of towels with the baby. Follow-up surveys with parents show that 70% were still using the towel 6-8 months after receiving it.

Face-to-face interviews indicate that about half of the mothers had used the children’s book in the toolkit.⁵ For some families, the book in the Talking is Teaching toolkit is the only children’s book that they had at home.

Fig 5. What was the most useful part of the toolkit?



Source: Follow-up surveys with parents 6-8 weeks after toolkit receipt, n=215.

Several mothers, particularly those who identify as Latina, said that their older children read the book to the younger ones, including the baby. Follow-ups with parents show that about 6 in 10 parents are using the children's book with their baby 6-8 months after receiving the toolkit.

Receiving the toolkit and educational session in the hospital can be challenging

While mothers were appreciative of the Talking is Teaching toolkit, receiving it immediately after giving birth was a challenge. Mothers' recollections about the experience indicate that it was difficult to be fully present with the nurse educator in the midst of a major life event.

"It was kind of hectic, like I had a lot of family coming in and out. I mean, I have like 8 brothers and sisters [chuckles]. I had quite a bit of people coming in and out, so I don't really remember much, if anything, of what she [nurse educator] told me."

"I think that if someone's in the room, that you [the nurse educator] should be like, 'I'll come back,' and then actually come back to explain the packet and tell me a little bit about what you do, what are you doing it for. I would've liked that because I like to know things. I'm one of those people. I'm always learning. And so I think it would've been better if she had been able to come back in and speak."

Suggestions to improve the toolkit

Parent survey results indicate that the *text4baby* post card and Sesame Word on the Street Cards were less useful than other materials, receiving ratings of 2.8 and 1.8 out of 5, respectively.

In one-on-one interviews, mothers suggested that the toolkit could include more books, including bath time-friendly books, and more suggestions for activities to do with young children. Some parents noted that they did not have a CD player, and would instead prefer to stream the Sesame Silly Songs through an app. Mothers suggested that the canvas bag could be larger, contain more pockets, and be washable.

CONCLUSION

This study provides promising initial evidence that the Talking is Teaching campaign has benefitted parents of newborns in Tulsa who received a literacy toolkit and educational session with a nurse educator. Parents report using the materials in the toolkit, especially the baby towel and children's book, and appreciated the visit from the nurse educator.

Parents report feeling very positive about talking, reading and singing to their young child, and indicate that the toolkit positively affected their early literacy behaviors with their baby. This study suggests that some members of the Tulsa community may benefit from additional opportunities to learn about the importance of early literacy activities, including younger parents, African American and Latino/a parents. It also suggests that in addition to reaching parents immediately after giving birth, it would be beneficial to reach parents at several points in the future – such as later in their child's infancy and in their toddler and preschool years – to reiterate messages and distribute age appropriate materials.

Equally promising, this study suggests that the toolkit and educational session had a priming effect for parents, heightening their awareness of other campaign activities in the region. This finding suggests that multi-channel campaigns can reinforce one another.

Acknowledgments

This evaluation project was made possible by funding provided by the George Kaiser Family Foundation.

We thank The Parent Child Center of Tulsa (PCCT) and its nurse educators for collecting the PCCT Study baseline data at several Tulsa hospitals; the technology consulting company Asemio for developing the application the PCCT nurse educators used to collect the data; and Drs. Kathy Hirsh-Pasek and Josh Pasek for their contribution as consultants to the evaluation project. We also thank the following team members of Dr. Amanda Morris' Child and Adolescent Development Lab for assisting on various aspects of this project: Angela Lievano-Hess, Trish Gosnell, Dr. Rashmi Singh, Chetana Musapeta, Mallory Branch, Kem McNeill, Amy Treat, and Diane Dudley.

APPENDICES

This study was completed by the Child and Adolescent Development Lab at Oklahoma State University. Dr. Amanda Morris and Dr. Martha Roblyer co-directed the study.

The content of these Appendices is drawn from Talking is Teaching Evaluation Research Findings, a report issued by Drs. Roblyer and Morris to the George Kaiser Family Foundation and The Opportunity Institute. Contact *Too Small to Fail* for a copy of the full report.

APPENDIX A: STUDY DESIGN

The protocols and measures described below were approved by the Institutional Review Board at Oklahoma State University. The study was conducted in both English and Spanish.

Quantitative methods

The research team implemented a prospective study, which collected data at three time points from participants who received the toolkit in the hospital. The study includes survey data collected by nurse educators during visits to parents of newborns in Tulsa’s hospitals prior to mothers receiving the toolkit and educational information (Time 1); phone or email/text surveys collected approximately six weeks after mothers received the toolkit (Time 2); and a follow-up phone/email/text survey approximately 6 months after mothers received the toolkit (Time 3).

The nurse educators collected data in person from 923 participants at Time 1. The OSU research team collected data via telephone, email, and text messages from 307 participants at Time 2, and from 191 participants at Time 3. In total, data collection efforts yielded 165 participants with three time points.

All data collection took place between December 2015 and December 2016. Surveys included demographic information, attitudes toward talking, reading, and singing to babies; frequencies of talking, reading, and singing to infants; and opinions about and use of the toolkit.

Qualitative methods

Researchers conducted one-on-one interviews with mothers of children 0-14 months of age who reported receiving the Talking is Teaching tote bag at the hospital where they delivered their baby. Nineteen mothers (8 White/Caucasian, 7 of Hispanic origin, and 4 African American) participated in the in-depth interviews.

Of the 19 participants, 12 spoke primarily English and 7 spoke primarily Spanish. The Spanish-speaking mothers were Hispanic and had been born in Mexico or Central America. All Hispanic mothers were of low socioeconomic status (SES), whereas the English-speaking mothers were a mix of low and middle income. SES was determined based on a combination of place of residency in Tulsa, level of education, and job positions mothers held presently or in the past.

At the start of the interview, the tote bag and the accompanying materials were displayed in front of the participant and questions were asked about the use of each item in the bag. A tote bag with materials in English was presented to English speaking mothers and a tote bag with materials in Spanish was presented to Spanish speaking mothers. The interview guide was structured around the following topics:

- Perceived utility of the Talking is Teaching toolkit (tote bag)
- Experience receiving the toolkit at the hospital
- Recall of information related to Talking is Teaching
- Recommendations to improve the toolkit and toolkit delivery

Survey Component	Timing
Demographic data of the participants	T1 and T2
Attitudes toward talking, reading, and singing to infants	T1 and T2
Behaviors related to talking, reading, and singing to infants	T2 and T3
Opinion about and use of the toolkit parents received at the hospital	T2 and T3

The interviews were coded by four members of the research team using the qualitative software NVivo. In the first round of coding, participants' opinions were classified into categories related to perceived utility of the Talking is Teaching toolkit (tote bag), the experience of receiving the toolkit at the hospital, recall of information conveyed by the nurse educators when they delivered the toolkit and educational session, and recommendations to improve the toolkit and toolkit delivery. In the second round of coding, participants' opinions were categorized by toolkit item, to determine how families were using the different elements in the toolkit, experience receiving the toolkit (positive, neutral, or negative), and recall of information about regional public education campaigns, including Talking is Teaching, the Period of Purple Crying, and Never Shake a Baby.⁶

In addition to the face-to-face interviews, in a follow-up telephone survey administered to participants enrolled in the Parent Child Center of Tulsa (PCCT), the research team used a combination of open-ended and multiple choice questions to inquire about favorite items in the toolkit, use of the toolkit items, and whether the toolkit made a difference in the way parents interacted with their babies.

APPENDIX B: CHARACTERISTICS OF THE STUDY POPULATION

Nine hundred twenty-three (923) participants were included in the study. Their demographic characteristics are in the following table.

Age in years (average and range)	28 (13-43)
Gender	(%)
Female	87
Marital Status	(%)
Married/living as married	66
Single	31
Other	3
Education Level	(%)
Less than high school	13
High school degree/GED	25
Vocational, Technical/ Associate's degree/some college	35
Bachelor's degree or higher	27
Hispanic Origin	(%)
Hispanic of Mexican origin	9
Hispanic of other origin	5
Non-Hispanic origin	87
Race/Ethnicity (multiple choices)	(%)
White	66
Black	18
American Indian	15
Asian	2
Hawaiian/Pacific Islander	1
Annual Income in Dollars	(%)
< 10,000	21
10–19,900	15
20–29,900	12
30–39,900	10
40–49,900	7
>50,000	35
Place of Residency	(%)
Tulsa County	65
Other counties in Oklahoma	25
Out of state	10

NOTES

1. Nurse Educators were affiliated with the Parent Child Center of Tulsa.
2. To reach the largest possible number of parents, follow-up surveys were conducted by phone and through text and email based surveys.
3. Zapata Roblyer, M., Morris, A. S., Gosnell, T., Lievano-Hess, A., McNeill K., & Musapeta, C. (2017, April). Demographic variables associated with attitudes and behaviors related to talking, reading, and singing to children 0-3. Poster presented at the Society for Research in Child Development Biennial Meeting, Austin, TX.
4. About half of toolkits included a towel, half a blanket.
5. Of 19 mothers interviewed, 9 reported using the children's book. Of these 9 mothers, 8 reported using the book frequently.