ANNENBERG
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Tips·by·Text:
Text-Messaging Programs to Support Parents and Caregivers

OVERVIEW

The Tips·by·Text programs are text-messaging interventions designed to help parents, caregivers, and educators support their children's development. The programs break down the complexity of parenting and caregiving into small, achievable steps, and provide continuous support and reinforcement.

Initially designed for parents of preschool-age children to help them prepare their children for kindergarten, Tips·by·Text has expanded to reach informal caregivers of young children, as well as parents and caregivers of children ages 0-6 and middle school students, across the country and internationally.

Tips·by·Text promotes literacy, math, and social-emotional development for younger children, and school engagement and broader wellness for older children. The programs are scalable, affordable, and easily implemented. Further, they are flexible enough to be differentiated in a variety of ways, such as through content, frequency, and timing. Currently available in English, Spanish, Chinese and Arabic, they can be readily translated into other languages.

BACKGROUND

Many parents face barriers to providing stimulating care and creating positive home learning environments. Because the quality of early childhood care impacts every aspect of child development and has long-term academic, social-emotional, and economic consequences, identifying parenting programs that work to help children thrive is of paramount importance.

Programs that try to change complex parenting behaviors quickly, through a short series of time-intensive information sessions, have proven largely ineffective. The parenting programs that have shown promise — including pediatric clinic-based programs and family visitation

KEY FINDINGS

- Tips·by·Text interventions increase parental involvement at home and school, and translate into learning gains for children.

- Tips·by·Text programs are scalable, flexible, and inexpensive.

- Tips·by·Text program content, frequency, and timing can be adapted to meet the needs of heterogeneous student and parent populations.

- Both parents and children enjoy the skill-building activities suggested by Tips·by·Text.

- Due to the widespread use of cell phones, Tips·by·Text programs can reach under-resourced families who often lack access to other parenting supports.

- Tips·by·Text may be effective in reducing the achievement gap. Under-resourced parents and racial/ethnic minority parents are the least likely to drop out of Tips·by·Text programs, and initially lower-performing students are the most likely to benefit from the interventions.

- Program design matters:

  ➤ Programs that provide context and encouragement along with easy-to-achieve activities have lower opt-out rates than programs that suggest activities alone.
  ➤ A high quantity of texts and more complex texts lead recipients to opt-out significantly more.
  ➤ Programs that are tailored to the needs of those to whom they are delivered in terms of content, frequency and timing may be more successful than generic programs, especially for children initially scoring above and below the baseline.

programs — are not easily replicable, as they are often expensive or demanding of parents' time and effort. Beyond facing issues of cost and access, many parents face informational and behavioral barriers to creating the positive home learning environments that they want for their children. Parents face a dizzying number of decisions, from the mundane to the crucially important, and may feel overwhelmed by the sheer number of choices they encounter when deciding how to engage with their children. Instead of making an informed choice, they may end up not engaging at all or defaulting to familiar but suboptimal activities. Similarly, adults struggle with activities that need to be repeated over time, like exercise and savings. Parenting requires sustained attention and commitment, even in the face of competing obligations, and often it is hard for parents to stay focused on their goals.

Parents need access to easy, default decisions that are effective, and prompts to do simple activities that are meaningful and productive. They also need reminders that, by engaging with the children in their care, they can help those children succeed. Most parenting programs do not provide these types of supports, instead giving parents more to think about and remember, rather than less.

Changing adult behavior is difficult, but new knowledge in the field of behavioral economics points to interventions that are more likely to be successful. Programs that maintain attention and fidelity over time, break down the complexity of large tasks into smaller achievable goals, and provide encouragement and useful information show promise, and may result in long-term, persistent change.

A program delivered via text messaging to parents and caregivers provides an opportunity to implement this evolving understanding about fostering positive behavioral change. Furthermore, because over 95% of adults in the U.S. own a cell phone, we can now reach families who have not traditionally had access to parenting support. Texting programs — which can delineate small steps towards larger parenting goals, supply ongoing education and reinforcement, and promote sustained adherence over prolonged periods of time — provide opportunities to help parents reach the goals that they have for their children.

THE PROGRAM

The designs of the texting programs draw on research about child development, parenting practices, and behavior change strategies. When appropriate, the skills

the text messages seek to build are linked to state standards. The standard program delivers three texts each week during the school year to parents and caregivers sequenced on Monday, Wednesday, and Friday mornings.

On Mondays, parents receive a FACT text designed to explain the importance of the week's skill. On Wednesdays, they receive a TIP text describing specific activities parents could do with their children to build that skill. Finally, on Fridays parents receive a GROWTH text, providing them with positive reinforcement and a follow-up tip.

Some versions of the program target literacy skills, while others target math skills, social-emotional skills, or a combination of content. In studies undertaken after our initial intervention, we have tested modifications of the standard program by varying the content, frequency, and timing of weekly texts in order to learn more about optimal program design.

SAMPLE WEEK OF TEXTS

FACT: Being able to order objects from shortest to longest helps kids develop measurement skills that are critical for K!

TIP: When you're unloading the groceries, ask your child to order the bottles, cans & jars on the counter from shortest to tallest. Are any the same height?

GROWTH: Keep ordering objects to prepare for K! During play time, mix up pencils, crayons & markers. Ask: Can you find the longest? Shortest? Third longest?

THE STUDIES

We piloted our texting intervention in the San Francisco Bay Area during the 2013-2014 school year. This first study targeted early literacy skills with preschool families. In the original version of our program, parents received three FACT-TIP-GROWTH texts per week focused on building a variety of pre-literacy skills. Results of the randomized controlled trial (RCT) showed that the program positively affected parenting practices and translated into student learning gains, and that these effects were strongest for children with lower pre-program assessment scores.

Encouraged by these findings, in our subsequent studies we have sought to understand the mechanisms underlying the success of our texting intervention and to expand its

reach. Our goal is to continually develop, test and refine the design of our programs so that they best meet the needs of the parents, caregivers, and children they are intended to help.

First, we investigated whether improvements were driven by the actual content of the texts, or whether the program's benefits were driven solely by the fact that participants were receiving frequent reminders (or "nudges") about parenting. We found that targeting texts based on skill level improved student results, and that academic effects were particularly pronounced for students further from average levels of baseline development. These results indicated that content mattered and texts were not serving simply as reminders.

Then we assessed how the frequency and linguistic complexity of the text messages affected results and the likelihood that participants would opt-out of the program. Our findings demonstrated that text messaging programs can supply too little or too much information. Parents preferred a three-text-per-week model that included informational FACT texts and encouraging GROWTH texts along with actionable TIP text advice to options with more or fewer weekly messages. Further, they were less likely to opt-out when they received shorter texts with less complex language. Children scoring in the lowest quartile before the intervention benefited most from receiving three texts per week, though initially higher scoring children did not benefit from more than one text per week.

Next, we delved deeper to investigate how the timing of our text messaging impacts the effectiveness of our program. Specifically, we analyzed whether sending messages on weekends is more beneficial, on average, than sending weekday messages. We asked whether parents have more time, bandwidth, and inclination to interact with their children and implement beneficial parenting practices on weekends or weekdays, and found that the answers to these questions depend on the parent population receiving the texts: for under-resourced families with initially lower performing students, weekend texts were generally more beneficial to children's skill development.

These previous studies provide persuasive evidence that program design matters and impacts results. Our ongoing research projects seek to build on this foundation of understanding. Current projects include expanding program access to informal caregivers as well as parents; recruiting participating families through health-clinic settings; and assessing whether including images in texts enhances their effectiveness. We are also designing and testing text-messaging programs for parents of children in different age groups beyond pre-kindergarten and kindergarten, including a program focused on parent/teen interactions aimed at improving high-school readiness. Our programs are being implemented both around the country and internationally.

CONCLUSION

The Tips·by·Text portfolio of projects leverages new technology to help parents and caregivers support their children's development. Our research shows that texting interventions may help reduce the achievement gap, as they are particularly effective at reaching under-resourced families and spurring learning gains in initially lower-performing children. Our research also shows that program design matters and impacts results. Therefore, in our ongoing studies, we are committed to investigating what works, what doesn't, and why.

RELATED PUBLICATIONS

Cortes, K., Fricke, H., Loeb, S. Song, D., and York, B., (Forthcoming). "Too Little or too Much? Actionable Advice in an Early Childhood Text Messaging Experiment." *Education Finance and Policy* (NBER working paper 27827).

Cortes, K., Fricke, H., Loeb, S. Song, D., and York, B.,(2019). "When Behavioral Barriers Are Too High Or Low – How Timing Matters For Parenting Interventions." NBER working paper 25964.

Doss, C. Fahle, E.M., Loeb, S. & York, B.N. (2019). "More than Just a Nudge: Supporting Kindergarten Parents with Differentiated and Personalized Text-Messages." *Journal of Human Resources*, 54(3), 567-603.

Fricke, H., Kalogrides, D. & Loeb, S. (2018). "It's Too Annoying: Who Drops Out of Educational Text Messaging Programs and Why." *Economic Letters*, 173, 39-43.

York, B. Loeb, S. & Doss, C. (2019). "One Step at a Time: The Effects of an Early Literacy Text Messaging Program for Parents of Preschoolers." *Journal of Human Resources*, 54(3), 537-566.

For more information, please visit https://annenberg.brown.edu/projects/tipsbytext or email Samuel_Madison@Brown.edu.