Medical Xpress

How do you help a baby learn? Word by word, a Chicago project says

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On the third-floor hospital maternity ward at the University of Chicago Medical Center, Bionka Burkhalter had just given birth to her first child, a 7-pound, 4-ounce boy named Josiah. There was a knock on the door, and two women asked to give a presentation on how to build her baby's brain. The 21-year-old single mother gave them her attention.

In the next 15 minutes, she heard about the importance of talking a lot to Josiah, whose thick dark hair poked out from under a swaddle blanket in a bassinet beside her bed. She heard about tuning into his cues and responding when he cries, and about giving him a chance to communicate back to her, even if just through eye contact.

Burkhalter is a test subject in one of many initiatives being piloted by the Thirty Million Words Project, which aims to prevent the achievement gap from starting with the power of parent-child talk - beginning at day one.

In this intervention with newborns, mothers still in the hospital learn research-based parenting practices less commonly known in poor households. There will soon be follow-up lessons at pediatric checkups. This winter, Thirty Million Words is embarking on a major long-term study of a home-visiting program that teaches communication skills to parents of slightly older babies. Children will be trailed from about 15 months old through at least kindergarten.

Thirty Million Words was founded by University of Chicago pediatric

surgeon Dana Suskind, who performs cochlear implant surgery on deaf children, allowing them to hear. Suskind was disturbed to discover that, after the same operation, some patients from poor families had more difficulty learning to speak than children from affluent homes. She became intrigued by a famous study finding that a hearing child born into poverty hears 30 million words fewer before age 4 than a middle-class peer.

This so-called "word gap" has been getting a lot of attention lately, thanks to Hillary Clinton making it a pre-campaign campaign of sorts. Her Too Small to Fail partnership has spurred a White House conference on the topic, public service announcements on Spanish-language Univision, and strategic dialogue on TV shows like "Orange Is the New Black" and "The Fosters." The American Academy of Pediatrics released a policy in June asking its 62,000 member doctors to encourage parents to read to their babies daily. There are now text message campaigns to give parents talking reminders and tips.

Thirty Million Words has promising results from a small pilot home-visiting program, and the national buzz has helped catapult the organization into a rapid expansion in Chicago. Suskind and her 13-member staff, plus graduate student interns and volunteers, are trying several approaches to reach families while measuring impact for potential widespread replication. These strategies do not simply involve the quantity of words spoken; they target parent-child relationships, in line with new research that the quality of communication matters most.

"Obviously, language can in itself be a key part of building a child's brain, but the parent relationship really is the basis for all of child development," said Suskind, 46, a widowed mother of three school-age kids who sits on the Too Small to Fail advisory council. "We're using the lever of parent talk to get into the parent-child relationship."

Language, though, can be quantified where relationships can't. In the long-term study that began in December, babies will wear a device recording how many words adults say to them in a day and how many chances they get to respond. Results will be collected for 200 children recruited from Early Head Start and other city programs. All families will receive six months of home visits, but parents won't all learn about the same thing. Half in a control group will get lessons on nutrition. The other 100 will see the Thirty Million Words video curriculum, explaining scientifically backed communication skills.

Parents will be taught to weave back-and-forth conversation into daily activities, from diaper changing to cooking dinner, and to explain to children why they are being asked to do things, rather than just directing them. They'll be urged to go on a "technology diet," since children need human interaction; their brains don't build connections with televisions and computers.

In partnership with the city of Chicago, Suskind's team will follow all 200 children over time to measure their kindergarten readiness. Suskind also is in talks with the Chicago Children's Museum to create targeted conversation points for the 400,000 children and parents who visit each year. She is applying for a grant to train low-income parents to be ambassadors promoting the cause. (Her organization gets a mix of public and private funding.)

"The ultimate answer is the whole society understanding how important parents are in their children's development," Suskind said. In low-income communities, "they've been told the opposite, that they're not powerful."

Burkhalter, who holds a GED and lives with her mother on the South Side of Chicago, was one of 80 new moms who got the newborn presentation after giving birth at the University of Chicago in recent months. Feedback from these women will be incorporated into a video

to roll out this summer in the maternity wards of the hospitals at the University of Chicago and Northwestern University, shown when newborns have their hearing tested. Similar videos are being developed to show parents on iPads while waiting to be seen at pediatric checkups.

Before her presentation began, Burkhalter filled out a survey. She checked "somewhat agree" to the statement, "How smart an infant will be depends mostly on their 'natural' intelligence at birth." She then turned to Beth Suskind and Iara Fuenmayor Rivas, who led her through a 59-slide PowerPoint. Beth is Dana Suskind's sister-in-law and runs Thirty Million Words' daily operation.

Despite having just been through 17 hours of labor, Burkhalter listened attentively as Beth Suskind explained that 85 percent of baby Josiah's brain will develop in the next three years. Her talking, responding and caring for him will make his brain grow strong. Every snuggle, every diaper change counts.

She debunked a common myth that infants can be spoiled with too much attention, explaining that their short-term memories are still developing for the first six months - so Josiah needs to be reminded that Mommy is there to comfort him when he's upset.

"There are no perfect parents," she said. "You're teaching him he can count on you."

Asked for "brutally honest" feedback at the end of the presentation, Burkhalter didn't have anything negative to say. She learned a lot. "I'm gonna talk to him when I'm changing his Pampers," she said.

She then took the same survey again. Beside the statement "How smart an infant will be depends mostly on their 'natural' intelligence at birth," she had a new answer: "Strongly disagree."