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LLOYD FOX/BALTIMORE SUN

The Mother Goose on the Loose Goslings program is a neurodevelopment-targeted initiative at University of Maryland Medical Center that instructs families and volunteers on how best to engage premature infants using early language and literacy activities.

Training parents to deal with fragile babies

In intensive care, talking and singing and careful handling count

By TALIA RICHMAN
The Baltimore Sun

Born three months before his expected due date, weighing less than two pounds, Tristan was nine days old before his mother heard him cry for the first time.

The lungs of babies born so prematurely are underdeveloped, making it difficult for them to breathe. His mother was told Tristan had a long stay ahead of him in the neonatal intensive care unit at the University of Maryland Children's Hospital.

With babies placed in incubators with tubes and monitors, it can be hard for new mothers to bond with them when they have serious medical conditions, as Tristan and the other infants in the NICU do. To help overcome that difficulty, Children's Hospital has offered a program since 2016 that teaches families ways to bond with their medically fragile children.

Nicole Dugger, Tristan's mother, is among those who have taken part in the program. During twice-monthly sessions in the NICU family lounge, volunteers from the Mother Goose on the Loose Goslings program show her and the other parents some of the best ways to sing, read and play with their premature babies. It's an adaptation of the Mother Goose on the Loose program at Port Discovery Children's Museum. That program was designed to promote early literacy among preschoolers. Before she attended a Goslings session,

Dugger said, she didn't know how best to interact with her son in a way that would help — not hurt — him. She wasn't able to even hold Tristan during the first 11 days of his life.

"Now I know more about what I can do and what I should not do," she said after a recent hourlong program session.

Barbara Henschel, a community outreach coordinator with Port Discovery, led the session. She started off by telling the assembled group — mothers, grandmothers, fathers and siblings — that their voices are the "most beautiful thing in the world to your baby." She taught them songs and nursery rhymes that they can recite to their infants, which will promote language development and attachment.

Port Discovery developed the program with a \$20,000 grant from the PNC Foundation's Grow Up Great initiative. PNC also gave \$8,000 to the University of Maryland, Baltimore County's psychology department to evaluate the program's effectiveness.

The UMBC researchers so far have found the majority of parents came away with the knowledge that reading and singing to their infant was important to the child's brain development.

Reading books to a baby starting in their early infancy has been shown to boost vocabulary and reading skills by the time that child is 4 years old. Studies show pre-term infants are at a greater risk for

developmental delays, especially the babies who are treated in private rooms, where there is reduced language stimulation.

Dugger said she used to feel silly talking to baby Tristan. Since taking part in Goslings, she has full conversations with her son.

"Even though it seems like you can't do anything with them, you really can," she said. "I know now that it helps to talk to him and sing to him."

The Drs. Rouben and Violet Jiji Neonatal Intensive Care Unit at the University of Maryland Children's Hospital is one of only two Level IV NICUs in the state, meaning it cares for the most critically ill babies in Maryland. These infants are typically born at extremely low weights and may have surgical, genetic and cardiac conditions. This NICU is made up of 52 private rooms, a model that provides more privacy for families and allows for more individualized care for the baby. It's a shift from the open-bay arrangement, which consists of a single ward where all infants are cared for together.

While the private-room model has many positives, "we need to be mindful that a room that is quiet all the time is not best for babies' brains," said Dr. Brenda Hussey-Gardner, who started the Goslings program. "We need to think about, 'How do we make the environment as developmentally appropriate as possible?'"

A key part of the program is teaching the

"Even though it seems like you can't do anything with them, you really can."

Nicole Dugger

parents how to monitor their infant's mood and health as they read and sing to them. If a baby is splaying its fingers and waving its hands above its head, that likely means the baby is feeling overstimulated and unhealthy.

"Some parents say, 'Oh, I've seen that all the time, but I thought they were just waving,'" Hussey-Gardner said.

The volunteers lay out lessons for parents in an easily digestible way, using a traffic light model. On a "green light day," a baby is feeling healthy and is ready for interaction. A baby will make eye contact and gently coo on a green light day. On these days, parents can use toys with their baby and sing songs.

Meanwhile, on a "red light day," the baby may be feeling in distress. A parent can tell it's a red light day if the baby is frowning, grunting or displaying other troublesome signs. There is no touching on a red light day, and a parent should only sing or talk to their baby in a whisper.

Teaching this model "empowers families to interact with their babies," said Dr. Michael Kochan, a NICU fellow with the University of Maryland Medical System.

When Dugger comes to visit Tristan, she asks the nurses what kind of day he's having and the traffic light model helps her understand "if it's OK to talk with him or if he needs his rest," she said.

During the Goslings program, the parents practice reading books and singing songs to baby dolls in makeshift baby incubators. This allows them to try out the different interactions without worrying about overstimulating their child.

Hussey-Gardner said the sessions also serve to create a community atmosphere for families in the NICU. She has seen parents leave the session exchanging phone numbers and promising to keep in touch. On a recent Thursday, one woman translated the presentation into Spanish for two non-English speaking mothers.

"It's really important to know you're not the only one going through this," Hussey-Gardner said. "Everyone plans on being pregnant for nine months and bringing baby home right away and having all this special time together. This is not what is expected."

Dugger attended the session with her two older sons, who are anxious to take their baby brother home. Together, the trio practiced ways to safely touch and sing to a NICU baby. The family sang one rhyme, set to the tune of "If you're happy and you know it," that went: "Since I love you very much, I'll give a hug."

Hussey-Gardner showed Dugger and her two older sons how to give a "NICU hug," gently cupping the baby's head and feet. "We have to teach parents when to provide stimulation and when to pull back," Hussey-Gardner said. "With a typical full-term baby, the rocking and singing can really help them. For our medically fragile and preemie babies, they really need less. And that's just not natural for parents."

Many of the families interviewed by UMBC researchers said they planned to use these strategies for the remainder of their time in the hospital. "It's empowering our families with a way to be mommy or daddy in the room, and interact with their baby in a way that's safe for them and developmentally appropriate in a way that fosters brain development," Hussey-Gardner said. trichman@baltsun.com twitter.com/TaliRichman

Weight loss surgery aids longevity, study finds

All three forms of bariatric surgery were found to be roughly equally effective

By MELISSA HEALY
Los Angeles Times

Bariatric surgery has become the medical profession's go-to solution for meaningful weight loss, and new research shows why: It saves lives.

In a retrospective study of close to 34,000 Israeli patients with obesity, the 8,385 who got one of three surgical procedures were roughly two times less likely to die over the next four years than were obese patients whose doctors gave them only weight-loss advice and encouragement.

It didn't matter whether patients opted for gastric bypass surgery, laparoscopic banding or laparoscopic sleeve gastrectomy. All three procedures were associated with a lower risk of death compared with nonsur-

gical treatment. The results were published Tuesday in the *Journal of the American Medical Association*.

For every 1,000 "person-years" lived by the Israeli patients while they were part of the study, the ones who had surgery experienced 2.51 fewer deaths than the ones who didn't.

After accounting for such factors as the patient's age, sex and pre-surgical body mass index — along with whether they had diabetes, high blood pressure, cardiovascular disease or other medical issues — the study authors found that the risk of death during the four-year study period was twice as high for patients who avoided surgery than for those who got it.

When considering each type of surgery on its own, the researchers found that the risk of death for nonsurgical patients was 2 times higher than for patients who had laparoscopic banding, 2.65 times higher than for patients who had gastric bypass and 1.6 times higher than for patients who had laparoscopic sleeve gastrectomy. The

differences among these three bariatric procedures weren't large enough to be considered statistically significant.

Two related studies found that sleeve gastrectomy — a form of weight-loss surgery that has surged in recent years — is roughly as effective as gastric bypass, a forerunner that is more complex to perform.

In one of those studies, Swiss researchers found that five years after surgery, subjects who got sleeve gastrectomy and those who had the more complicated gastric bypass procedure lost essentially the same percentage of their excess weight — 25 percent for the former group and 28.6 percent for the latter.

The second study, conducted in Finland, found that gastric bypass resulted in slightly greater weight loss after five years. However, both procedures reduced patients' need for diabetes, blood pressure and cholesterol medications at rates that were not significantly different from each other.

On the important subject of surgical

complications, the studies found that sleeve gastrectomy and gastric bypass surgery each come with distinct risks. Sleeve gastrectomy patients were roughly 32 percent more likely than those getting gastric bypass to suffer a worsening of gastric reflux symptoms. But patients who got gastric bypass surgery were somewhat more likely to need to return for corrective surgery (22.1 percent vs. 15.8 percent) in the five years following their procedure.

In an editorial commenting on the findings, an obesity researcher and a bariatric surgeon acknowledged that, in embracing sleeve gastrectomy, the medical profession has not misplaced its bets. "Collectively, these studies provide reassuring data to suggest that the rapid switch from Roux-en-Y gastric bypass to sleeve gastrectomy in the last decade has not been a therapeutic misadventure similar to the rise and fall of the adjustable gastric band," wrote obesity specialists Dr. David Arterburn and Dr. Anirban Gupta, both of whom are based in the Seattle area.

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