The Way to Beat Poverty

By NICHOLAS KRISTOF and SHERYL WuDUNN   SEPT. 12, 2014

AS our children were growing up, one of their playmates was a girl named Jessica. Our kids would disappear with Jessica to make forts, build a treehouse and share dreams. We were always concerned because — there’s no polite way to say this — Jessica was a mess.

Her mother, a teen mom, was away in prison for drug-related offenses, and Jessica had never known her father. While Jessica was very smart, she used her intelligence to become a fluent, prodigious liar. Even as a young girl, she seemed headed for jail or pregnancy, and in sixth grade she was kicked out of school for bringing alcohol to class. One neighbor forbade his daughter to play with her, and after she started setting fires we wondered if we should do the same.

Jessica reminded us that the greatest inequality in America is not in wealth but the even greater gap of opportunity. We had been trying to help people in Zimbabwe and Cambodia, and now we found ourselves helpless to assist one of our daughter’s best friends.

One reason the United States has not made more progress against poverty is that our interventions come too late. If there’s one overarching lesson from the past few decades of research about how to break the cycles of poverty in the United States, it’s the power of parenting — and of intervening early, ideally in the first year or two of life or even before a child is born.

Within four weeks of conception, a human embryo has formed a neural tube, which then begins to produce brain cells. As the brain is forming, it is shaped by the uterine environment in ways that will affect the child for the rest of his or her life. A mother who drinks alcohol may leave her child with fetal alcohol syndrome or, less serious, fetal alcohol effects. A study by Ann Streissguth at the University of Washington found that by age 14, 60 percent of children born with fetal alcohol...
syndrome or effects have been suspended from school or expelled. Almost half have displayed inappropriate sexual behavior such as public masturbation.

Children with fetal alcohol effects account for 1 percent of births; 20 percent of births in America are to mothers who smoked during pregnancy. These babies have smaller head circumferences on average, and because nicotine increases the testosterone in the woman’s uterus, some theorize that this may lead to a greater penchant for aggressiveness, particularly among sons. Patricia A. Brennan of Emory University found that when a mother smoked a pack a day during pregnancy, her offspring were more than twice as likely to be violent criminals as adults.

Likewise, when a pregnant woman is exposed to lead from old paint or from air pollution, her fetus absorbs it in ways that impair the development of the brain. Some research suggests that the rise of crime in the mid-20th century may have been caused in part by the increasing presence of lead in the environment, and that one factor in the decline in crime from the 1990s on was the phasing out of lead from gasoline (and thus from air pollution) beginning two decades earlier.

The lifelong impact of what happens early in life was reinforced by a series of studies on laboratory rats by Michael Meaney of McGill University in Canada. Professor Meaney noticed that some rat mothers were always licking and grooming their pups (baby rats are called pups), while others were much less attentive. He found that rats that had been licked and cuddled as pups were far more self-confident, curious and intelligent. They were also better at mazes, healthier and longer-lived.

Professor Meaney mixed up the rat pups, taking biological offspring of the licking mothers and giving them at birth to the moms who licked less. Then he took pups born to the laissez-faire mothers and gave them to be raised by those committed to licking and grooming. When the pups grew up, he ran them through the same battery of tests. What mattered, it turned out, wasn’t biological parentage but whether a rat pup was licked and groomed attentively.

The licking and grooming seemed to affect the development of brain structures that regulate stress. A rat’s early life in a lab is highly stressful (especially when scientists are picking up the pups and handling them), leading to the release of stress hormones such as cortisol. In the rats with less attentive mothers, the cortisol shaped their brains to prepare for a life of danger and stress.
But the attentive mothers used their maternal licking and grooming to soothe their pups immediately, dispersing the cortisol and leaving their brains unaffected.

A series of studies have found similar patterns in humans. Scientists can measure cortisol in an infant’s saliva, and babies turn out to be easily stressed. Anything from loud noises to hunger to a soiled diaper floods the child’s brain with cortisol. But when Mom or Dad hugs the child, the stress and cortisol almost disappear. If a baby is in a bassinet and gets a shot, its cortisol level soars; if the mom is holding the baby, the cortisol level rises, but much more modestly.

Dr. Jack P. Shonkoff, founder of the Center on the Developing Child at Harvard University, has been a pioneer in this research. He argues that the constant bath of cortisol in a high-stress infancy prepares the child for a high-risk environment. The cortisol affects brain structures so that those individuals are on a fight-or-flight hair trigger throughout life, an adaptation that might have been useful in prehistory. But in today’s world, the result is schoolchildren who are so alert to danger that they cannot concentrate. They are also so suspicious of others that they are prone to pre-emptive aggression.

Dr. Shonkoff calls this “toxic stress” and describes it as one way that poverty regenerates. Moms in poverty often live in stressful homes while juggling a thousand challenges, and they are disproportionately likely to be teenagers, without a partner to help out. A baby in such an environment is more likely to grow up with a brain bathed in cortisol.

Fortunately, a scholar named David Olds has shown that there are ways to snap this poverty cycle.

Mr. Olds began his career working with 4-year-olds, but then decided that many children were already traumatized and damaged at that age, so he needed to start earlier. He founded an initiative that became Nurse-Family Partnership, dispatching nurses to visit low-income, disadvantaged families and offer counseling on child-rearing. The nurses begin visiting during pregnancy, urging moms not to drink or use drugs while carrying a baby.

One nurse, Stacy, worked with a pregnant 17-year-old named Bonnie, who lived in a dirt-floor basement apartment. Bonnie smoked, drank, got into fistfights and regularly collided with the law. When Stacy suggested that Bonnie stop smoking, Bonnie threatened to slap her. “This baby’s taken everything else away from me,” Bonnie raged. “It’s not going to take away my cigarettes.”
It turned out that Bonnie had been abused as a child and had, as a babysitter, abused others as well. During one of Stacy’s visits, she broke down and confessed her fear of abusing her own child — “especially if it’s a crier.” Stacy suggested some coping mechanisms and wrote down the name of an older woman living nearby whom Bonnie could call for help. Stacy taped the paper to the wall, ready for a crisis. Bonnie did call the older woman, who helped out, and against all odds Bonnie ended up taking quite good care of her baby — which may be why that child ended up graduating from high school many years later. These nurse visits continue until the child turns 2, with the nurse encouraging the mom to speak to the child constantly, to read to the child, to show affection. Later there are discussions of birth control.

The visits have been studied extensively through randomized controlled trials — the gold standard of evidence — and are stunningly effective. Children randomly assigned to nurse visits suffer 79 percent fewer cases of state-verified abuse or neglect than similar children randomly assigned to other programs. Even though the program ends at age 2, the children at age 15 have fewer than half as many arrests on average. At the 15-year follow-up, the mothers themselves have one-third fewer subsequent births and have spent 30 fewer months on welfare than the controls. A RAND Corporation study found that each dollar invested in nurse visits to low-income unmarried mothers produced $5.70 in benefits.

So here we have an anti-poverty program that is cheap, is backed by rigorous evidence and pays for itself several times over in reduced costs later on. Yet it has funds to serve only 2 percent to 3 percent of needy families. That’s infuriating.

There are a couple of lessons we can learn from David Olds and from other programs with a solid record of proven effectiveness. First, it is critical to intervene early, in the crucial window when the brain is developing and the foundations for adult life are being laid. That means helping women avert pregnancies they don’t want and, if they become pregnant, helping them deflect dangers such as drug use, alcohol and tobacco.

James Heckman, a Nobel Prize-winning economist at the University of Chicago, says that our society would be better off taking sums we invest in high school and university and redeploying them to help struggling kids in the first five years of life. We certainly would prefer not to cut education budgets of any kind, but if pressed, we would have to agree that $1 billion spent on home visitation for...
at-risk young mothers would achieve much more in breaking the poverty cycle than the same sum spent on indirect subsidies collected by for-profit universities.

Second, children’s programs are most successful when they leverage the most important — and difficult — job in the world: parenting. Give parents the tools to nurture their child in infancy and the result will be a more self-confident and resilient person for decades to come. It’s far less expensive to coach parents to support children than to maintain prisons years later.

What does that mean for all of us? We wish more donors would endow not just professorships but also the jobs of nurses who visit at-risk parents; we wish tycoons would seek naming opportunities not only at concert halls and museum wings but also in nursery schools. We need advocates to push federal, state and local governments to invest in the first couple of years of life, to support parents during pregnancy and a child’s earliest years.

As for our children’s friend, Jessica, she’s now 20. She was taken in by a wonderful foster family in high school and began to thrive. She became the first person in her family to go to college, but then the money ran out after freshman year, so she’s working and planning to go back to school later. We think she’ll pull it off — but her troubled journey underscores that it’s always better to help young children at the front end, rather than try to undo the damage later.

*If you want to help, here are a few organizations whose work on early childhood has impressed us.*

**NURSE-FAMILY PARTNERSHIP** is a proven home-visitation program that gives at-risk kids a shot at reaching the starting line.

*nursefamilypartnership.org*

**REACH OUT AND READ** supports pediatricians who hand out books to low-income children during doctor visits, with instructions about bedtime reading. Careful studies show that the parents read to the children more often and the children end up with larger vocabularies — all for just $20 per child per year.

*reachoutandread.org*

**SPRINGBOARD COLLABORATIVE** provides intensive summer school for disadvantaged children, so that a three-month loss in reading level turns into a 3.3-month gain. A donor can sponsor a child for a summer for $350.

*springboardcollaborative.org*

**SAVE THE CHILDREN** provides home visitation, screening and literacy
programs for young children. A sponsorship is $28 a month. savethechildren.org

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