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FIXES

Protecting Children From Toxic Stress

By David Bornstein

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Fixes looks at solutions to social problems and why they work.

Imagine if scientists discovered a toxic substance that increased the risks of cancer, diabetes and heart, lung and liver disease for millions of people. Something that also increased one's risks for smoking, drug abuse, suicide, teen pregnancy, sexually transmitted disease, domestic violence and depression — and simultaneously reduced the chances of succeeding in school, performing well on a job and maintaining stable relationships? It would be comparable to hazards like lead paint, tobacco smoke and mercury. We would do everything in our power to contain it and keep it far away from children. Right?

Well, there is such a thing, but it's not a substance. It's been called "toxic stress." For more than a decade, researchers have understood that frequent or continual stress on young children who lack adequate protection and support from adults, is strongly associated with increases in the risks of lifelong health and social problems, including all those listed above.

In the late 1990s, Vincent Felitti and Robert Anda conducted a landmark study that examined the effects of adverse childhood experiences (ACEs) — including abuse, neglect, domestic violence and family dysfunction — on 17,000 mainly white, predominately well-educated, middle class people in San Diego. They found a powerful connection between the level of adversity faced and the incidence of many health and social problems. They also discovered that ACEs were more common than they had expected. (About 40 percent of respondents reported two or more ACEs, and 25 percent reported three or more.) Since then, similar surveys have been conducted in several states, with consistent findings.

In the years since, advances in biology, neuroscience, epigenetics and other

fields have shed light on the mechanisms behind this phenomenon. “What the science is telling us now is how experience gets into the brain as it’s developing its basic architecture and how it gets into the cardiovascular system and the immune system,” explains Jack P. Shonkoff, director of the Center on the Developing Child at Harvard University, where the term toxic stress was coined. “These insights provide an opportunity to think about new ways we might try to reduce the academic achievement gap and health disparities — and not just do the same old things.”

First, it’s important to note that toxic stress is not a determinant, but a risk factor. And while prevention is best, it’s never too late to mitigate its effects. It’s also critical to distinguish between “toxic stress” and normal stress. In the context of a reasonably safe environment where children have protective relationships with adults, Shonkoff explains, childhood stress is not a problem. In fact, it promotes healthy growth, coping skills and resilience. It becomes harmful when it is prolonged and when adults do not interact in ways that make children feel safe and emotionally connected.

This distinction is critical, because it opens the way to new opportunities to prevent a cascade of health problems. It is exceedingly difficult to alter the environments that produce major stress for families, particularly poverty. However, children can be shielded from the most damaging effects of stress if their parents are taught how to respond appropriately. “One thing that is highly protective is the quality of the relationship between the parent and the child,” explains Darcy Lowell, an associate clinical professor at Yale University School of Medicine and the founder of Child First, a program based in Shelton, Conn., that has marshaled strong evidence demonstrating the ability to intervene early, at relatively low cost, to reduce the harm caused by childhood stress in extremely high-need families. “Early relationships, where adults are responsive and attentive, are able to buffer the damaging effects on the brain and body,” she says.

Child First, initially developed at Bridgeport Hospital in Connecticut, now works in partnership with community-based agencies in 15 locations across the state, where staff members deliver its program of home-based parent guidance and child-parent psychotherapy. In a well-controlled study, children served by Child First were compared with those receiving usual social services and were found to be

significantly less likely to have language problems and aggressive and defiant behaviors. Their mothers had markedly less depression and mental health problems, and the families were less likely to be involved with child protective services even three years later.

Consider Ana Sophia, who is 5 years old. Her mother, Ana Patricia, emigrated to the United States from Guatemala to escape domestic violence. (Their surnames have been omitted.)

When Ana Sophia was 2, she was sexually abused by the husband of her child care provider. Before, she had been a "pleasant and affectionate child," her mother said. After, she began having frequent outbursts of rage. "She would explode into tantrums, throwing chairs, throwing her cot, screaming, crying," recalled Ana Patricia, who works as a housekeeper. She didn't know what to do. She felt hurt and guilty; her instinct was to allow the tantrums and hug Ana Sophia. But the tantrums also triggered her own feelings of helplessness and fear and she would often react angrily.

This is the kind of pattern that, if uninterrupted, would have only gotten worse. And although problems like this are common, clinical services targeting young children remain few and far between. Indeed, Ana Sophia's experience needs to be considered in the context of the epidemic of preschool expulsions in the United States today, which studies have found to be three to 13 times as commonplace as K-12 expulsions.

And they can be prevented. At the Village for Families and Children, a social service agency in Hartford, 25 percent of the 100 families with a preschooler being served by Child First had a child who had been expelled from a preschool or was at imminent risk of being expelled, observed Kimberly Martini-Carvell, senior director at the agency. "Since Child First began working with those families, we've seen a dramatic reduction in expulsions," she added, with only two children being expelled.

"Ana Patricia was allowing her daughter to do what she wanted to do," explained Loretto Lacayo, a mental health and developmental clinician who delivers the Child First program. "That doesn't feel safe to a child, especially after the loss of control of being abused." Lacayo and her team partner, Sarah Rendon, helped Ana Patricia

learn how to interact with her daughter in a sensitive but protective manner.

Through her work with Child First, Ana Patricia said she has learned how to recognize how Ana Sophia is feeling, and listen to her better, and this has helped her daughter control her strong emotions and express her feelings without hurting people. “I was taught that it was embarrassing to talk about feelings,” she said. “This is very different from what my mother did.”

By developing the ability to read a child’s cues, and by being emotionally available on a daily basis, parents can provide buffers that reduce the harmful physiological effects of high stress. “I feel like I enjoy my daughter more now,” Ana Patricia said. “And she enjoys me as a mother.”

Child First, whose funders include the Robert Wood Johnson Foundation, the Connecticut Department of Children and Families and the United States Department of Health and Human Services’ home visitation program, attributes its success to a number of factors. It is preventive, focusing on children under the age of 6. It works through teams, bringing a mental health professional into the home alongside a care coordinator who helps the family gain access to basic services.

Both pieces are necessary. Lowell recalled an ‘aha moment’ years before she started Child First in 2001 when she was consulting with an agency about a child who had a language delay. “The family didn’t come to a speech therapy appointment,” she recalled. “When we investigated, we found out Mom didn’t bring her out in the winter because she had no shoes for the child. It made me realize that we have to look at problems in the context of the whole family and their challenges.”

Child First teams visit families once a week for six to 12 months, or longer, with the goal of stabilizing the family. They begin by establishing trust, listening and understanding the family’s priorities. If the first thing a mother says is, “I want beds for my children,” then that’s step one. The engagement is guided by an evidence-based methodology called Child-Parent Psychotherapy, which is grounded in collaborative problem solving.

In this process, “the therapist does not present herself as the expert, but as a partner in seeking solutions together,” explains Alicia Lieberman, director of the Child Trauma Research Program at the University of California, San Francisco, who led the development of this practice. It’s essential that the therapist responds in a

caring and nonjudgmental manner. “Many parents worry that something is basically wrong with them,” says Lieberman. “It brings tremendous relief to hear that they are not ‘bad.’ And when they see the therapist believing in them and joining in their efforts to overcome problems, a different attitude gets established about themselves and their child.”

Almost all of the parents that Child First works with (mostly single mothers, but sometimes fathers or grandparents) have experienced trauma themselves. They’ve grown up with limited models for understanding their children’s behavior. “What often gets missed,” observes Judy Adel, one of Child First’s clinical directors, “is that every mother says, ‘I want something better for my children.’ They just don’t know what it looks like.”

A big goal is to help parents develop “reflective capacity” so they can respond with greater awareness about – and bring more wonder to – the meaning of their children’s behavior every day. Another is to help parents become more effective problem solvers – exercising their “executive functioning” capabilities, which can be impaired by traumatic childhood experiences.

Teams do this by asking respectful questions that guide parents to their own insights, rather than imposing solutions. They also use video to capture the power of everyday moments. One time, for instance, a team was with a mother and her child in a mall with a play space. The baby started crawling through a tunnel and the mother said, “I bet I can get through that.”

“Later, the video showed how the baby squealed with excitement at the interaction,” recalled Judy Adel. “It was like her brain went on fire.” For a mother with a history of loss, trauma or neglect, seeing how much she matters to her baby can be an “aha moment,” explains Lowell. “Many mothers don’t feel that what they do has any impact on their child’s development or that their child even loves them. So seeing a child’s delight when they look up at their mother’s face is a very powerful communication. It can begin to change the trajectory of the relationship.”

“There are millions of times that children are doing things that parents are missing or misreading,” she adds, “and there’s no joy or delight in their parenting. We want delight! Delight is protective. When a child feels loved and valued by a

parent, it buffers the circumstances. We can't fix poverty but we can buffer the stresses."

Child First has struck a chord. It has received invitations to bring its model to 24 states. Among high-risk families, the need is dramatic. But the science around toxic stress has much bigger implications. With the growing knowledge about the effects of ACEs, there are implications for pediatricians, day care policies, public schools, the justice system – just about anyone who engages with children, youths or adults with behavior problems. One big take-away is to change the question from: What's wrong with the person? To: What happened to the person? And: What's the best response? (Hint: punishment is usually not.)

"This new knowledge calls for a population-based public health response — like what was done for smoking, seatbelts and drunk driving," notes Kristin B. Schubert, a former health policy analyst who directs the Vulnerable Populations program at the Robert Wood Johnson Foundation.

The stakes? "To my mind," comments Robert Anda, "it's the most important opportunity for the prevention of health and social problems and disease and disability that has ever been seen."

In my next column, I'll look at how the research on ACEs and toxic stress is being used around the country to improve the way different systems work.

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Editors' Note: October 31, 2013

An earlier version of this article included the surname of a child victim of sexual abuse. Although the journalist obtained the family's

permission to use the surname, The Times has decided to omit it.

Correction: October 31, 2013

An earlier version of this article misstated the location of the Child First headquarters. It is in Shelton, Conn., not Bridgeport.

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