

This doctor pioneered a way to treat stress in children, a startling source of future disease

By **Michael Alison Chandler** October 6

Soon after Nadine Burke Harris opened a pediatrics clinic in a low-income neighborhood in San Francisco, she began grappling with the high rates of asthma and other illnesses that she was diagnosing in her patients. She wanted to understand why so many of the kids she saw were so sick.

“They would have chronic abdominal pain, headaches, attention deficit hyperactivity disorder, opposition defiant disorder,” she said. “It could be that all these different kids have all these diagnoses, or it could be that there is one thing at the root of this.”

She found an answer in a decade-old study that showed a strong link between chronic disease and traumatic experiences during childhood — things such as physical abuse or neglect, or living with a family member addicted to drugs or alcohol. She knew the children she saw lived with high “doses” of adversity, she said, and it made sense: Trauma was affecting their developing brains and also their developing bodies.

So she began to regard her practice in a whole new way. She started evaluating children not just for their medical histories, but also their social histories. And instead of treating only symptoms, she sought to help with the root causes of the stress that were making them sick.

She screened all the children at her clinic for traumatic experiences, and she built a new kind of medical center for those who screened positive. At the Center for Youth Wellness, which opened in 2011, children and their parents can see mental health workers, learn about mindfulness and other relaxation techniques, and meet with case managers who connect them with social services.

Harris’ novel approach to health care, and her personal story, are gaining national attention. Her work has been profiled in a best-selling book by Paul Tough, and a documentary film. Her health center has attracted major funders, including Google.org.

Last month, she spoke at the White House for a conference about trauma. And this week, she was honored in Pittsburgh with the Heinz Award for the Human Condition, one of six prizes given annually by the Heinz Foundation to “exceptional Americans, for their creativity and determination in finding solutions to critical issues.” The award comes with a \$250,000 prize.

“I think we have reached a tipping point,” Harris said in an interview.

The American Academy of Pediatrics in 2014 announced the launch of a Center on Healthy, Resilient Children to help pediatricians identify children with toxic stress and help intervene. Local chapters are training pediatricians.

A screening tool for childhood trauma on the center’s web site has been downloaded 1,100 times. Harris’s goal is for every pediatrician to screen children for trauma.

It is a tall ask for already-busy doctors, who see patients in 15 minute increments, to try to identify and treat a litany of pervasive and entrenched social problems. But Harris compares the research about the negative affects of childhood adversity to the discovery of germ theory or the science that showed second-hand smoke is harmful. The medical community evolved and responded.

“Does it seem like a difficult problem to solve? Yes. Does it seem harder than cancer? I don’t know,” she said. “Medicine and public health are all about solving hard problems.”

Harris, 40, grew up in Palo Alto, California, the only girl in a family of five children. Her father is a biochemist and her mother is a nurse, and she set her sights early on becoming a doctor, she said. Harris was brought up with a strong cultural value of “we take care of each other,” she said, that her parents brought from their native Jamaica. “It’s a small island, and everyone has a cousin who is maybe not doing so hot. So it’s a real sense of shared destiny,” she said.

So while she pursued her medical degree at UC Davis, she was the student director of a clinic for the homeless in Sacramento. And when she finished her residency at Stanford University, she helped set up a practice in one of San Francisco’s most impoverished neighborhoods, Bayview-Hunters Point.

The research that transformed her career was a large-scale investigation undertaken by Kaiser Permanente and the Centers on Disease Control to see how chronic stress in childhood impacted health in life. It included 17,000 Kaiser patients who answered a questionnaire about their personal histories with “adverse childhood experiences,” otherwise known as ACES.

Questions included whether or not their parents were divorced, whether they experienced physical abuse, sexual abuse, or emotional neglect, and whether they grew up with family members who were mentally ill, or addicted to drugs, or alcohol.

The researchers, Vincent Felitti from Kaiser and Robert Anda of the CDC, found that adverse childhood experiences were incredibly common. Two-thirds of respondents reported at least one. One in six reported at least four.

And they documented an overwhelming correlation with poor health outcomes. Higher numbers of adverse experiences consistently yielded more health problems. Compared to people with no childhood trauma, people with 4 or more were twice as likely to be diagnosed with cancer or heart disease; 7 times as likely to be alcoholics; 6 times as likely to have depression; and 12 times as likely to have attempted suicide. People exposed to 6 or more traumatic events died 20 years sooner than those who had none.

Traumatic experiences led people to engage in more risky behaviors, such as intravenous drug use and early sexual activity. But even people without a history of high-risk behaviors had poor health outcomes.

Initial response to the findings was slow, partly because people did not know how to interpret the results, said Jane Stevens, publisher of [ACEs Too High](#), a news site about the impacts of childhood adversity.

But in the years since the study was published, a generation of scientists have begun to understand and explain the way stress shapes our bodies. Biomedical scientists and brain researchers have shown how “fight or flight” stress hormones, like adrenaline and cortisol, which flood the body when someone encounters danger, can cause lasting damage in the brain and body when a child is under prolonged or repeated and unmitigated stress, what is now commonly known as toxic stress.

The confluence of research is beginning to have an impact in many fields, Stevens said. Police departments are offering stress reduction classes. Educators are revising school discipline policies, and offering more mental health support in schools for children dealing with severe stress.

As she pored through the research, Harris realized that exposure to childhood trauma increases the risk of contracting seven of the 10 leading causes of death in the United States.

“I went to medical school, I never heard about this,” Harris said. “When I did, I wanted to shout it from the rooftops.”

Jessica Weisz, a pediatrician at CCI Health and Wellness Services in Takoma Park, Md., said she heard Harris speak at a conference and was motivated by what she learned.

More than 30 percent of the children she sees suffer from asthma to some degree, she said, and research shows a link to childhood adversity. So this year, her office developed a screening tool for patients with asthma.

Because she mainly serves Latino clients, the tool includes some questions about immigration-related stressors, including whether a family member has been deported. Children who screen positive are referred to a team of licensed social workers on staff.

Like Weisz, other pediatricians are tailoring screening tools to reflect the populations they serve. Some pediatricians in the District are using questions developed in Philadelphia to gather information about urban stressors, such as witnessing violence or feeling unsafe in your neighborhood

So far, research shows six major strategies for mitigating stress: sleep, nutrition, exercise, mindfulness, mental health care, and healthy relationships. There is no breakthrough cure, Harris said.

Better treatments for stress are being developed. Research is particularly promising, Harris said, because the treatments can be used universally.

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Her practice focuses on low-income families, who experience particularly high rates of chronic stress. But childhood adversity is prevalent nationwide. Respondents for the original ACES study were middle or upper-class, and nearly three quarters had college degrees; 69 percent were white.

“I think in upper income communities, it’s less talked about,” she said.

She pays close attention now to the affects of stress – even in smaller doses – on herself and her own family. She and her husband are raising four boys.

“I have to work to manage my own stress. I love my job, but it’s stressful,” she said. “It’s really important for me to take care of myself.”

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Michael Alison Chandler writes about schools and families in the Washington region. [!\[\]\(626ce8ac21792b9405bfddfea8e0c96a_img.jpg\) Follow @michaelalison](#)