



“YOU DON’T

ELIZABETH MILLER HELPS OTHERS

TUNE IN TO TEENS | BY JENNY BLAIR

UNDERSTAND!”

The patient who transformed Elizabeth Miller's life was 15 years old when the two met in 2000. At a Boston-area clinic where Miller volunteered, the girl walked in to ask for a pregnancy test. It was negative. Miller asked the usual domestic violence screening questions. The patient “looked at me rather strangely,” recalls Miller. Turning up nothing of note, she then talked to the girl about birth control options and sent her home with condoms.

Two weeks later, Miller learned that the girl had suffered a severe head injury after her boyfriend pushed her down a flight of stairs.

“It was there, staring me in the face,” Miller recalls of the abuse the girl must have been enduring at the time. “And I totally missed it.”

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The tragedy ignited her interest in adolescent relationship abuse. Trained in medical anthropology, Miller began to cast not only a physician's, but also a social scientist's, eye on the problem, and to draw in an unusually wide variety of people to solve it. Today, as associate professor of pediatrics and chief of the Division of Adolescent and Young Adult Medicine for the University of Pittsburgh's Department of Pediatrics and Children's Hospital of Pittsburgh of UPMC, Miller, an MD/PhD, brings together activists, researchers (including other social scientists and epidemiologists), health care providers, social workers, and youth themselves in partnerships to grapple with partner abuse and many other forms of adversity that burden young people.

Since her arrival in 2011, Miller has built a research powerhouse—one with rich community and academic ties, a thriving multi-

disciplinary clinic, and a strong commitment to youth empowerment and social justice. The Center for Adolescent and Young Adult Health, or CAYAH, treats kids from all walks of life, including young people tangled in the juvenile justice system, those whose family lives are fragile, those in foster care or who have aged out of that system and find themselves homeless.

Her colleagues call her Liz. She's warm, has a genius for connecting people, and stands 5' 1" tall. "Energetic" is an understated description of Miller. At the moment, she is involved in 18 active grants and holds \$2 million just in federal funds. During this time of extremely tight federal funding, Miller has launched one National Institutes of Health and two Centers for Disease Control and Prevention R01 grant-funded studies this year. Here are just a few topics she's exploring: racial disparities in men's reproductive decisions, partner violence against Native American women, and alcohol-fueled sexual violence among college students.

One colleague calls her a "force of nature."

In a sense, she's an übergodmother for the youth of Pittsburgh and beyond whose work may change the odds for her own patients as well as young people who will never meet her. And her efforts are helping other professionals understand this population better.

Kristy Trautmann, executive director of the FISA Foundation, a Pittsburgh women's health and disability rights organization, puts it this way: "Liz embodies what it means to take research and use it to change the world."

When you show up to your appointment at the CAYAH clinic in Oakland, you get a warm welcome even if you're three hours late. They'll try to fit you in, Miller having long ago done away with the clinic's old "15 minutes late, get rescheduled" policy.

There's no TV in the waiting room; Miller has seen to that. But there is a shelf of free books gathered by a staff member's 6-year-old daughter. Rainbow stickers and LGBTQ SafeZone pam-

phlets are on display around the clinic, along with posters advertising research studies and support groups. A new Gender and Sexual Development Program is housed here, drawing gender-variant kids from three states. (Homeless queer youth can also visit a free downtown clinic just for them that Miller helped establish by bringing together several existing organizations.)

In the exam room, you don't have to get undressed before the provider arrives (another Miller policy). You aren't required to get a pelvic exam if you want birth control. If you need a breast exam but don't feel safe or comfortable in a gown, you can leave your T-shirt on.

"CAYAH clinicians create a safe space for youth to talk about tough subjects like drug use, their sexuality," says Pitt assistant professor of pediatrics Heather McCauley whose social epidemiology research focuses on girls in the foster care system and LGBTQ youth.

Unsafe at home? Not enough to eat? Got a complex mental health situation?

"We don't bat an eye," says Joanne Goodall, a nurse practitioner.

Gabrielle (not her real name) can vouch for that.

"I was in a hole, a dark hole," recalls the 21-year-old, who has severe asthma and a tough home life. For a long time, Gabrielle's illness was out of control, with well over a dozen hospitalizations in one especially bad year. As she struggled to cope with her medical problems, a turbulent family situation and the deaths of loved ones turned her world upside down.

"I kind of shut down," she recalls. "I didn't know how to talk to people."

That gradually changed. Talking to Goodall, Gabrielle began to open up, express her feelings, and eventually take control of her health. Social worker Gary Sadler helped her solve practical problems on the homefront, while clinical director and Pitt assistant professor of pediatrics Jonathan Pletcher (MD '94) helped her deal with her depression and anger. Goodall told Gabrielle to call her any time, and earned the young woman's trust by returning all calls within a day. People at the clinic, Gabrielle says, take care of her as if she were their own.



Elizabeth Miller is like an übergodmother for the young people of Pittsburgh.

CAMI MESA

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Adolescence can seem, all at once, a time of limitless possibility and intense pressure.

“[Goodall] makes me feel like maybe I’m talking to an aunt or maybe a grandma,” Gabrielle says. “She just has that spark to her. She makes you feel real comfortable. She’s always open. And she’s always, always, always there to listen.”

The clinic’s staff, Miller stresses, are there to lend an ear and support.

If the provider finds out you’ve missed appointments or skipped your meds or run away or gotten in trouble with the police, the response is gentle and constructive. If you’re struggling with a gigantic bill or have run out of food, a social worker can make calls to help you. Gabrielle says Goodall makes sure she has a bus ticket if she doesn’t have a ride home.

“You don’t say, *What’s wrong with you?*” says Goodall of the clinic’s approach to trou-

bled kids. “You say, *What happened to you?* . . . [and] *What else can we offer you to help?* . . . Kids refer their friends.”

It is, in a sense, a clinic that keeps saying *yes* when what many kids are accustomed to hearing is *no*.

Even in supportive families, chronic disease can isolate an adolescent.

Eighteen-year-old Sydney (not her real name) has an uncommon condition that causes chronic pain. She’s used to educating her own physicians about it.

When she began to see Pletcher a year and a half ago, she was impressed.

Not only was he already familiar with her illness, but the big-picture questions he asked were spot on:

“How do I get through school? How do I

maintain relationships with friends? How do I feel every day knowing I’m probably going to wake up and go to sleep in a lot of pain?” Sydney says.

“For the first time, I talked to someone who understood the medicine behind what was wrong and could help from that aspect, but [also] wanted to know about every aspect, and how it changed my life.”

Letting youth tell their own stories forms the backbone of much of Miller’s research. After her 15-year-old patient was attacked in 2000, she began a series of 53 interviews with young women referred by care providers and social workers who knew that the girls had experienced abusive relationships; Miller was intent on learning how

to better spot warning signs of such violence.

What she heard was a story about teen pregnancy that providers and researchers had overlooked.

In one of her very first interviews, Miller heard from an 18-year-old who'd had a baby at age 16. The reason: Her boyfriend had flushed her birth control pills down the toilet. He told their friends, against her wishes, that they were starting a family.

"I didn't want to start a family. I wanted to finish school," the young woman told Miller.

"It was story after story of abusive partners actively, like explicitly, trying to get a young woman pregnant when she didn't want to be," Miller recalls.

"Everybody talks about girls who get pregnant on purpose to trap their boyfriends. But not the other way around." What Miller discovered in these interviews appeared in 2007 in *Ambulatory Pediatrics*.

With a 2010 paper in *Contraception*, Miller became probably the first in the domestic violence literature to quantify what she dubbed "reproductive coercion," in which a male deliberately promotes unwanted pregnancy and/or controls pregnancy outcomes in his female partner. This behavior often accompanies partner violence, and the combination doubles the risk of unintended pregnancy. In that study of 1,278 patients at five Northern California family planning clinics, one in five adolescent girls and young women reported reproductive coercion.

Many of these patients don't typically volunteer this information to providers. Reproductive coercion can be the hidden reason behind seemingly irresponsible behaviors like "losing" one's birth control pills, not showing up for contraceptive appointments, or "sexual acting out," a loosely defined term that includes impulsive, precocious, injurious, or otherwise concerning sexual behavior.

When she gives talks to women's health providers, Miller says, "Something about the reproductive coercion piece really clicks. Every one of them is sitting there thinking about a patient of theirs where they assumed she was just being irresponsible."

In the digital age, much abuse takes place

online. A project of the National Domestic Violence Hotline called *loveisrespect* routinely hears from young people whose partners text them obsessively, then get angry if there's no quick response. Or they'll threaten them online. Or they'll post compromising photos of them publicly. Or keep tabs on them through social media.

Two in five youth, both male and female, reported such abuse in a first-of-its-kind study that Miller and her colleagues published in *Pediatrics* last November. Those who had

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experienced this so-called cyberdating abuse in the last three months were more likely to be physically and sexually abused in the course of an intimate relationship. The study focused on students using school-based health services in California.

As part of a long-term strategy to reduce relationship violence, Miller is collaborating with Pitt sociology professor Lisa Brush, a PhD, and McCauley, an ScD, on a social science study. In it, groups of adolescent boys draw what they think it means to be a man and brainstorm online about the cultural messages they receive about manhood.

Some of the boys' beliefs, like the idea that men shouldn't hit women because their job is to protect them, might seem positive. But they "merely reinforce traditional atti-

tudes about what you should be as a man," McCauley says. Less conducive still to gender equity is the idea that men need more sex than women do, so they're entitled to demand it or look for it outside an otherwise monogamous relationship.

The work grew from Miller's studies of the Coaching Boys Into Men initiative, in which high school coaches of boys talk to their charges about alternatives to relationship violence.

Miller found that the program can lead to an increase in positive bystander intervention—by 25 percent at three months—as well as to a relative reduction in abuse perpetration. After a year of follow-up, nonparticipants increased their rates of partner abuse by 15 percent relative to participants. (Though after a year, positive bystander interventions dropped off compared to right after the sports season.)

Although the program is doing good things, it doesn't shift the young participants' beliefs about hypermasculinity. (Hypermasculinity can be thought of as the embrace of exaggerated stereotypically male behaviors, including aggression and sometimes even violence.) The social science studies are meant to explore why, with an eye toward tweaking future interventions.

Thanks in large part to Miller's research, the Planned Parenthood Federation of America has rewritten its partner-violence screening guidelines to include efforts to identify reproductive coercion, and the American Congress of Obstetricians and Gynecologists is doing the same. In the meantime, the American Academy of Pediatrics is suggesting that practitioners place a greater emphasis on long-acting reversible contraceptives like the intrauterine device. Those methods are harder for a hostile partner to sabotage than, say, packages of birth control pills.

To Miller, such translation of research into changes in policy and practice is the whole point. "The reason that I do research is because I'm an advocate," Miller says.

"You know that old feminist adage, 'The

personal is political?” Brush asks. “What is so special about Liz Miller is that for her, the clinical is political.”

Elizabeth Miller grew up bicultural and bilingual in Kobe, Japan. She is the daughter of a Japanese mother and a father from Gulfport, Miss. (Her parents met on a boat to Taiwan and married years later.) “Airlifted” back to Gulfport to stay with relatives during her childhood summers, Miller says she was traumatized by the racism and poverty she witnessed there.

One of her cousins in Gulfport got pregnant at age 16. She says those kinds of early experiences have fed her interest about how social determinants affect health.

During medical school at Harvard, she did a summer project in Japan on health care for the homeless. Later, for her PhD in anthropology, she focused her dissertation on sex trafficking in Japan and grew passionate about understanding gender-based violence, especially that directed at women and girls.

Miller became board certified in internal medicine and pediatrics, also earning her Japanese medical license and practicing in Kobe for a year. It was as a Harvard faculty member that she became a school physician for an area district, grew intrigued by adolescent health, and met the teen who inspired so much of her subsequent work.

But whither adolescent medicine? The Society for Adolescent Health and Medicine first met in 1969. Yet, as an official subspecialty, adolescent medicine has been around only since 1994, with the first fellowships accredited four years later. To some observers, why adolescent medicine needs to exist at all is unclear. Can't teens just go to pediatricians and twentysomethings to internists or other adult providers?

With its many complex changes in biology and social roles, Miller says, adolescence is second only to infancy in its dynamism. She's heard pediatricians and other physicians say things like, *They're too difficult*, and *Teens will be teens*, and *They just need to grow up*.

Adolescent medicine specialists' offerings include gynecologic and sometimes obstetric care for girls and young women; care for young adults with conditions like cystic fibrosis that until recent decades would likely

have killed them in childhood; and help for children with complex medical or psychosocial problems transitioning to adulthood.

Young adults aren't quite like other adults, either. Neuroscience suggests that cognitive development isn't complete until the early to mid-20s. Adolescence is also a time when full-blown mental illnesses, like depression or schizophrenia, can manifest themselves.

For Miller though, part of the joy of caring for adolescents and young adults is because of their very vulnerability.

“Maybe as researchers, practitioners, and advocates for adolescents we are drawn to this population because they are so often misunderstood and marginalized,” Miller says.

Even for kids in tenuous situations, adolescence can be a breathless time of self-discovery.

Gabrielle, the CAYAH patient, is feeling a lot more centered these days. With some paperwork help from Goodall, she is now applying to school, a process she says is “on a roll.” Her goal? To become a medical assistant.

Gabrielle adds that ever since she's been seeing Goodall she's “been okay. Everything about me has been going uphill.”

When she was recruited from UC Davis, Miller says, she fell in love with Pitt. For one thing, Children's was trusted in the community. And thanks to previous head Pamela Murray, an MD/MPH, the division already had a firm commitment to vulnerable youth populations, with contracts in place to serve local colleges, mental health agencies, and Pittsburgh's juvenile-justice facility.

As codirector of community engagement for the Clinical and Translational Science Institute's Community PARTners Core, Miller helps find ways to link the community with the academy.

Stephanie Walsh is chief operating officer of the human services agency Auberle, which offers programs like foster care, work-readiness training, and drug treatment to at-risk children and families primarily in southwestern Pennsylvania.

When Miller visits Auberle's child-service workers, Walsh says, she connects “as though she's always been a member of that team,” discussing research in an understandable way and giving them tools they can use.

For example, suppose a teenage girl enters foster care after having run away for a few months. Rather than looking at her as an incorrigible runaway or just checking to see if she is all right, Miller would encourage staff to ask themselves if the girl might have been forced into sexual activity—and teach them how to explore that possibility with open-ended questions.

So rather than asking, *Have you ever been abused?* Walsh says that now that question might go something like this, “*You know, I worked with a young girl once, and this happened to her. I don't know if you have any friends that that's happened to, but I thought I'd just share that.*” It's a way to say... *If this has happened to you, I am aware that this can happen, and I'm capable of talking to you about it.*”

Miller has learned that youth are much more likely to open up when clinicians and frontline staff share how common unhealthy relationships are, describe what they mean by “unhealthy” and “abusive,” and offer information to share with their friends.

At the FISA Foundation, access to people doing solid science both at Pitt and nationally allows Trautmann and her colleagues to make evidence-based decisions about violence prevention for women and girls.

For example, Miller's study of the outcomes of Coaching Boys Into Men directly inspired FISA's work to encourage the program's adoption locally. Moreover, FISA is now better positioned to talk to grantees about the emerging evidence and best practices that can strengthen their proposals.

Before, says Trautmann, “we were doing our very best, and I think we were doing it in the smartest possible way. But we didn't have access to all this information.”

“Liz has galvanized the University and hospital system and community to carry out more rigorous research that helps us to solve the health problems of adolescence,” says David Perlmutter, an MD, who holds the Vira I. Heinz Chair, is a Distinguished Professor of Pediatrics, and leads the Department of Pediatrics at Pitt, as well as serving as scientific director and physician-in-chief at Children's.

He adds, “When I go around town now, people say, *David, thank you for bringing Liz Miller to Pittsburgh.*” ■