

A NEWSLETTER FOR
FRIENDS AND SUPPORTERS

Connections

WINTER 2024



Kids and Mental Health

Navigating the Crisis Together

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The Teenage Brain

Our neuroscientists are uncovering revolutionary new treatments for teen depression, drawing on research into the unique adolescent brain.

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Psychiatry Goes Virtual

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BEST Mental Health Care

The Braddock Emotional Support Team (BEST) psychotherapy program helps pediatric patients on our Oakland campus navigate complex treatments.



As our community enters 2024, mental health remains squarely in the center of our priorities at UCSF Benioff Children's Hospitals.

Even as we return to pre-pandemic routines, there has been no end to global stressors, and young people are battling mental health disorders on an unprecedented scale. Anxiety, depression, hospitalizations, and suicide rates have skyrocketed, and the number of providers and hospital beds simply cannot meet the urgent demand.

As vice president of child behavioral health services, I believe that expanding our mental health services is the single most important thing we can do to become the comprehensive health care resource that our community needs us to be. But it's going to take innovation and investment.

That's why this issue of *Connections* focuses on youth mental health. Every effort described in the pages that follow began with philanthropy: our telepsychiatry consultation portal, neuroscientific research into the teenage mind, and bedside mental health care for kids with cancer and blood disorders. In the past few years, we have doubled the number of faculty psychiatrists, and we're filling gaps in our system of care, all thanks to community investment.

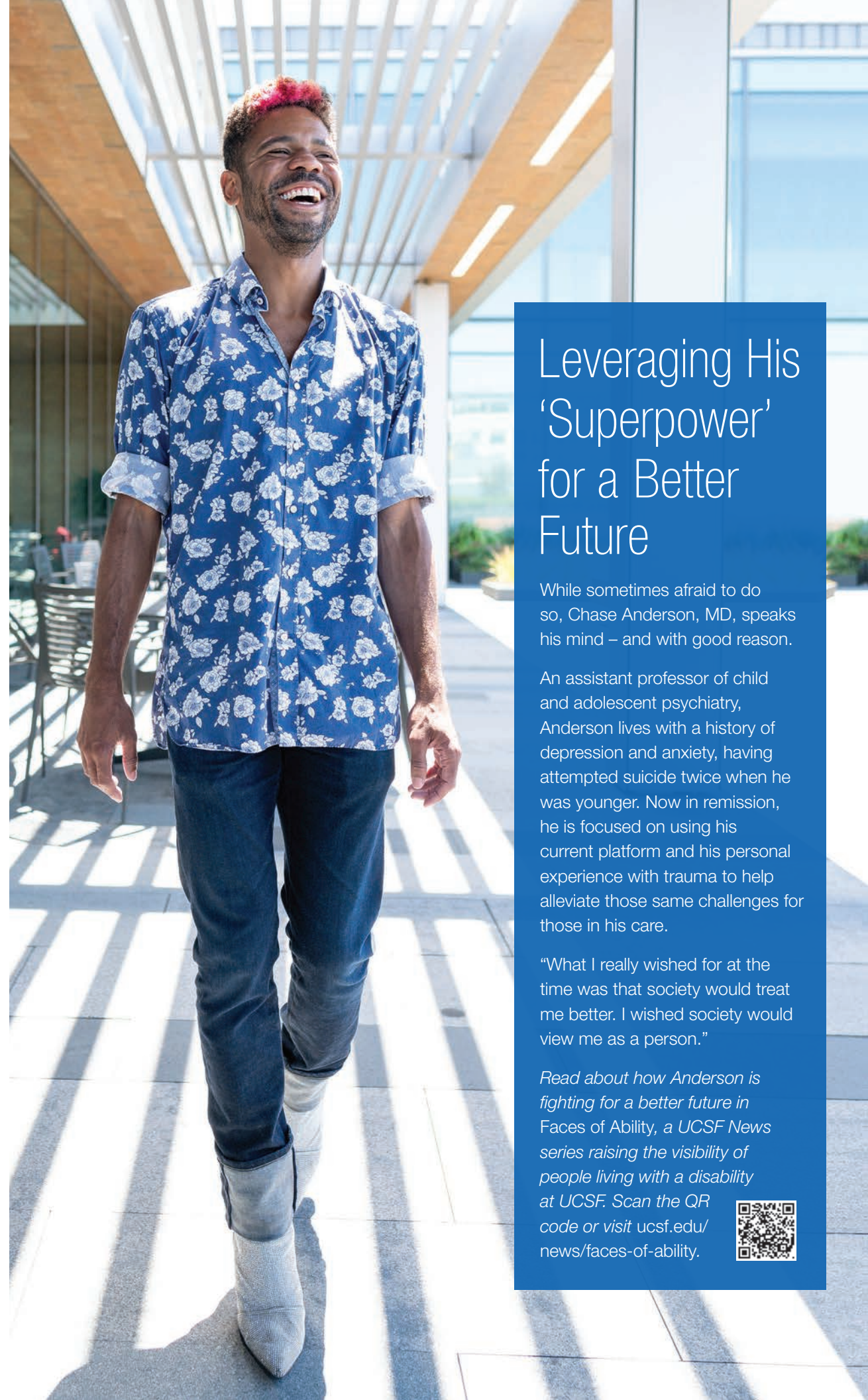
We're also learning that by using technology in mental health care, we can more quickly and effectively reach kids and families who might otherwise fall through the cracks. Our faculty members are exploring everything from remote sleep interventions for children with autism to virtual support apps designed with and for youth in foster care.

The reality is, so much of this work falls outside of traditional lines of health care funding, which is why your partnership remains so important. Because every child in crisis – whether their condition is mild or severe, whether they live in San Francisco or Stockton, whether they are insured or not – deserves access to exceptional mental health care.

Thank you for your support.

Sincerely,

Bryan H. King, MD, MBA
Pritzker Family Distinguished Professor and Vice Chair for Child Psychiatry
Vice President, Child Behavioral Health Services, UCSF Benioff Children's Hospitals



Leveraging His 'Superpower' for a Better Future

While sometimes afraid to do so, Chase Anderson, MD, speaks his mind – and with good reason.

An assistant professor of child and adolescent psychiatry, Anderson lives with a history of depression and anxiety, having attempted suicide twice when he was younger. Now in remission, he is focused on using his current platform and his personal experience with trauma to help alleviate those same challenges for those in his care.

"What I really wished for at the time was that society would treat me better. I wished society would view me as a person."

Read about how Anderson is fighting for a better future in *Faces of Ability*, a UCSF News series raising the visibility of people living with a disability at UCSF. Scan the QR code or visit ucsf.edu/news/faces-of-ability.



Can Neuroscience Help Stem the Tide of Teen Depression?

Lillian Carson was 11 when the fear struck. She had always been a sensitive child who tuned in to the feelings of animals and other people. But after her dad was diagnosed with cancer, she spiraled into worry and sleeplessness. “I would be up at night, huddled in the corner with my dog, and my sheets over my head, thinking someone was going to break through my window and get me,” she remembers.

Her parents took her to therapy, which eased her anxiety for a while. “It was still prevalent in my life, but it wasn’t something that stopped me from being a kid,” Lillian, now 16, says. “Then the pandemic came, and that all changed pretty rapidly.”

The fear returned with a vengeance. She stopped sleeping again. A mild chest injury morphed into a condition called amplified musculoskeletal pain syndrome, which can be brought on by stress. “She had these bouts of intractable pain,” recalls Lillian’s mom, Beryle Chandler-Carson. “We were going to the emergency room in the middle of the night and seeing dozens of different medical specialists.”

Meanwhile, getting a mental health appointment proved next to impossible. “There was nobody who could get you in unless it was online,” Lillian says. And online therapy, in her opinion, was a bust. “It feels really hard to be yourself and be connected when it’s on a screen,” she explains.

Lillian is not alone. Even before COVID-19, teen mental distress was spreading at an alarming clip. In 2011, 1 in 4 high schoolers felt persistently sad or hopeless, according to survey data from the U.S. Centers for Disease Control and Prevention. By 2019, the ratio had jumped to 1 in 3. In 2021, at the height of the



Lillian practices the mindfulness techniques she learned through TARA.

pandemic, almost half of teens reported such feelings. Over the same decade, emergency room visits by children and young adults for anxiety, mood and eating disorders, and incidents of self-harm climbed sharply. Suicide rates soared.

“It’s a problem that’s been at a crisis level for years, and COVID just threw fuel on the fire,” says Tony Yang, MD, PhD, a child and adolescent psychiatrist and neuroscientist at UCSF.

Of Puberty and Plasticity

In search of a solution, Yang turned to a resource that the field of psychiatry had long overlooked: the teenage brain. He was one of the first experts to study the underlying neurobiology of teen depression by imaging neural activity and connections. His research has helped uncover new insights into the condition and inspired an intervention, tailored for teens like Lillian, called Training for Awareness, Resilience, and Action (TARA).

The 12-week program – developed by Yang’s former fellow Eva Henje, MD, PhD – draws from mindfulness meditation and yoga as well as more traditional forms of psychotherapy. Mindfulness practices, which originated in the Buddhist and Hindu traditions, cultivate the ability to observe experiences in the present moment without reaction or judgment.

Mounting evidence shows that these practices can alleviate depression and anxiety and reduce relapses in adults. Yang is now leading studies of TARA with UCSF’s Olga Tymofiyeva, PhD, to see whether the intervention can similarly benefit teens who can’t get or may not need advanced professional care.

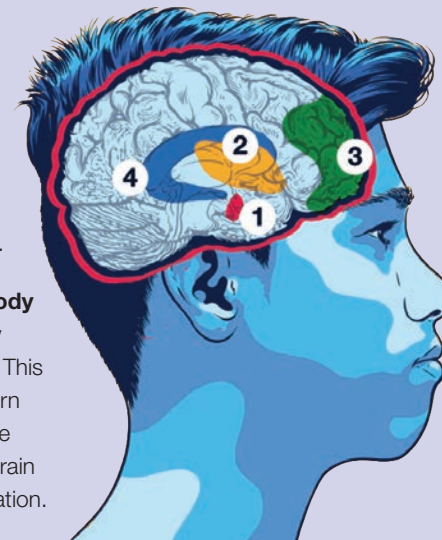
Lillian says she also has become more aware of how her choices, such as what she eats or what songs she listens to, affect her mood. “If I’m feeling down, I’m not going to start playing demeaning music.” She still regularly struggles with anxiety, she says, “but I have a lot better coping mechanisms to deal with it.”

1 Calming the Mind

TARA starts with breathing exercises that quiet emotion centers like the **amygdala**, an area associated with fear, anxiety, and aggression.

2 Tuning in to the Body

Next, teens learn to pay attention to sensations. This calls on areas that govern awareness, including the **insula**, and stops the brain from engaging in rumination.



3 Managing Emotions

In the third module, teens practice recognizing, naming, and regulating emotions. This trains the **prefrontal cortex**, which is still developing during adolescence, to exert control over the amygdala and other areas involved in emotion.

4 Taking Action

Finally, TARA teaches goal-setting and value-based action. These skills further improve the function of the prefrontal cortex and strengthen parts of the reward network, including the **striatum**.

Raising Resilience

The pilot study, published in 2017, showed that TARA significantly improved symptoms of depression and anxiety. Those results led to a larger trial, called Brain Change, funded by the National Institutes of Health and launched in 2021. Its first phase enrolled 100 healthy teens, including Lillian, who may have had depressive tendencies but no official diagnosis. All of the teens’ brains were scanned before and after the sessions to compare the outcomes. The main aim was to see how TARA rewired their brains.

“That was the coolest thing I experienced in the study, getting to see my own brain,” Lillian says. She particularly liked the breathing exercises and body scans – a mindfulness practice of scanning the body for pain or tension – which she still does sometimes when she’s frustrated or anxious. “I’ll be in a disagreement with someone or just feel not great, and I’ll do breathing or a body scan for five minutes,” she says. “It makes me feel more grounded and able to look at other people’s perspectives.”

Yang and Tymofiyeva are now analyzing the data from the first Brain Change cohort and, according to preliminary reports, have shown that the teens’ brains indeed have changed, particularly in areas associated with emotion, awareness, and reward. Encouraged by these findings, the researchers have begun recruiting a new cohort of 120 teens with elevated depression. They expect to see even greater therapeutic benefits and neural rewiring in this group than in the healthy volunteers.

Experts are optimistic that programs like TARA – if proven effective and made widely accessible online or in schools – will help slow or even reverse the steep decline in mental health among adolescents. But early interventions are only part of the solution. There will always be teens who need more specialized mental health care.

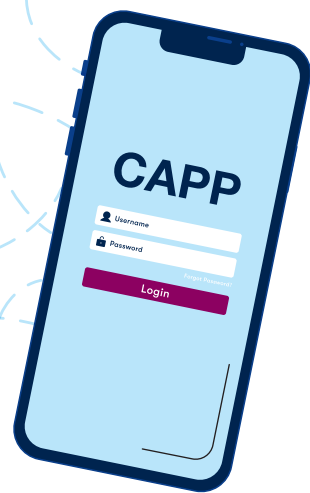
Adapted from “Can Neuroscience Help Stem the Tide of Teen Depression?” in UCSF Magazine. To read the full article, visit tiny.ucsf.edu/teendepression.

Meet CAPP

Our innovative answer to the pediatric mental health crisis

CHILDREN IN CRISIS

During the COVID-19 pandemic, the pediatric mental health crisis hit epidemic proportions. Anxiety and depression doubled among young people, with even higher rates among marginalized groups. Yet the severe shortage of psychiatrists in California, which is predicted to worsen, means that many children are waiting a year or more to see a specialist, even when their struggles are life-threatening.



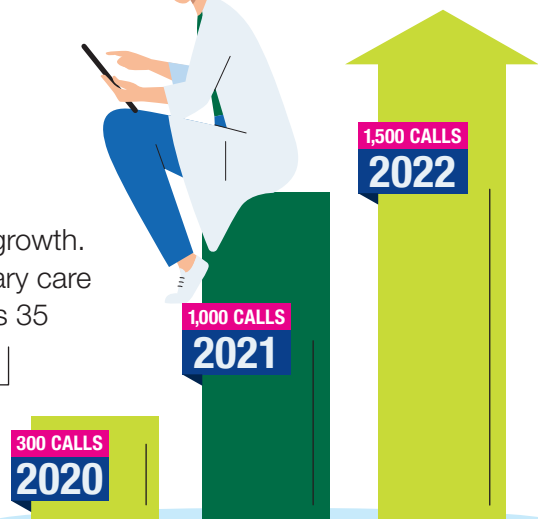
A TIMELY SOLUTION

Enter the Child and Adolescent Psychiatry Portal (CAPP). When UCSF Benioff Children's Hospitals launched CAPP just weeks before the pandemic began, no one could have predicted its timeliness. Since then, hundreds of primary care providers – mostly pediatricians – have used the portal to connect with UCSF psychiatrists and psychologists for real-time advice on treating young patients with mental health concerns.



EXPONENTIAL GROWTH

Since its launch, CAPP has seen exponential growth. To date, CAPP has enrolled about 1,500 primary care providers from more than 250 practices across 35 California counties – reaching as far north as Siskiyou County and as far south as Kern County.



THE CAPP CONNECTION

With CAPP, pediatricians can access real-time advice, online and in-person training, and group discussions about active patient cases. The goal: Give primary care providers the skills, knowledge, and confidence they need to address a wide range of mental health challenges on their own.



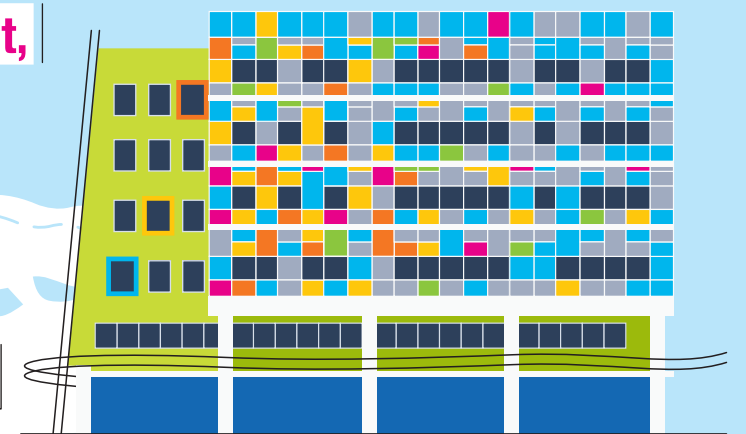
INNOVATING FOR PATIENTS

For Miriam Rhew, MD, who practices in San Leandro, the portal has been a godsend. Her five-pediatrician practice has learned how to better manage children with mild to moderate depression, anxiety, and ADHD, among other conditions – so much so that she calls the portal less and less. **“To be able to talk to a child psychiatrist on the same day, to go over the case with them and talk about management and resources, is incredibly valuable for our patients.”**

EXCEPTIONAL CARE

Plans are now underway to make the portal a statewide resource and bring the program into schools. No matter how it grows, the spirit of the Oakland hospital where the program began will remain fundamental:

Providing excellent, evidence-based mental health treatment for the medically underserved, across California.



Q | A

How can parents support teens struggling with depression?

AN INTERVIEW WITH SAUN-TOY TROTTER, LMFT

Concerned about rising rates of depression among teenagers? You're not alone. Whether your teen is depressed or you just want to be prepared, you may be wondering what parents can do to support a teenager struggling with depression.

We posed this question to Saun-Toy Trotter (right), clinical director of UCSF's school-based behavioral health programs and parent of a 14-year-old. Trotter says parenting a teen can be both terrific and terrifying. When you add depression, the balancing act becomes even more complicated: Parents need to be highly sensitive to their teens' safety while also supporting their growing need for independence.



How does depression manifest in teens?

Often people think of depression as melancholy. For adolescents, depression can look like sadness, but it can also look like anger or irritation. You might think, "Oh, they're just being a teenager," but if an irritable, angry mood persists for over two weeks, it could be depression.

Other symptoms can include changes in appetite and sleep, lack of motivation, not finding pleasure in pastimes they once enjoyed, not connecting well with peers, self-harm, and preoccupation with death or suicide.

What can parents do to support a teen who shows signs of depression?

Start with the big three: Are they eating, sleeping, and moving? Can you help them tweak one of those areas – adjust their sleep, move more, eat three small meals a day?

Stay connected. It's your teen's developmental task to push you away and take risks, but they still need the love, safety, and stability that you provide. Let them push away, but be there when they come back.

Structure, routine, and family rituals can provide a sense of safety and relaxation. Have a regular family meal. Schedule a weekly movie night. Engage in healthy coping practices together, like going to the gym or taking walks. Invite your teen to family rituals and celebrations, even if they decide not to go. Empower them to help plan these family moments.

Validate their feelings and emotions, even if you don't understand those feelings and even if they seem extreme. Acknowledge what they're doing well and celebrate their achievements.

It's also important to reduce screen time and social media use and have direct conversations about sex, alcohol, and drug use.

What if the depression becomes severe?

Invite your teen to seek therapy. As parents, we can direct our young people toward therapy, but unless there's a safety concern, we shouldn't force it. Propose therapy as



Validate their feelings and emotions, even if you don't understand those feelings and even if they seem extreme. Acknowledge what they're doing well and celebrate their achievements.

a choice, as something to try, even once. Empower them to choose a therapist who makes them feel safe.

Encourage your older teen or young adult to make decisions about their own mental health, including whether to initiate medication. Let them know it's OK to try psychiatric medications and that they can always step back or make a different choice. Teens need to understand their diagnosis and treatment options and be part of these decisions because they're going to be making these choices throughout their lives.

If your teen is expressing suicidal thoughts, meet them with compassion and acknowledge that they're hurting. Give them the space to talk about what they're experiencing. Reach out to a professional or suicide resource; dialing 988 connects you to the 24-hour National Suicide Prevention and Crisis Lifeline. Alameda County residents can text SAFE to 20121 between 8 a.m. and midnight, seven days a week.

What other resources are available?

Talk to your doctor and your child's school. Even if you don't have access to insurance or are facing a long wait time for care, most schools have some sort of behavioral health service, which is a great place to start.

And remember, we all have mental health. Parenting can be both delightful and demanding, which is why it's so important for parents to take care of their own mental health as well.

BEST Mental Health Care

How an expanded psychotherapy program is helping our patients and their families navigate complex treatments for cancer and blood disorders.

When Manvir Guleria was diagnosed with neuroblastoma, he was a frustrated 9-year old who didn't know how to handle the painful treatments and long hospital stays that resulted.

Manvir's family spent more days than they could count at UCSF Benioff Children's Hospital Oakland because of the cancer, which develops in immature nerve cells, often in young children. Manvir underwent a complicated tumor-removal surgery, nine rounds of chemotherapy, two bone marrow transplants, and several immunotherapy treatments – often spending 30 consecutive days in the hospital.



"At first, Manvir was very angry and withdrawn, but after he started working with BEST, he took everything much more in stride and made connections with people at the hospital, which made it all less lonely," says Manvir's mom, Pawan.

She credits the UCSF Benioff Oakland Braddock Emotional Support Team (BEST) with helping him better manage the many hospitalizations, tests,

and procedures he endured over the past two years. BEST provides mental and behavioral health coping support care to pediatric patients and their families so they have the tools and resources to deal with the emotional strain and physical pain of their critical and sometimes life-threatening blood disease and cancer diagnoses.

"Medical treatments these young patients receive can be quite traumatic, especially for those facing lifelong or significant illnesses," says Dina Hankin, PhD, a psychologist and BEST's clinical coordinator/manager. "We minimize the long-term traumatic impact for patients and their families. We help them manage and cope with typical emotional responses to atypical situations. For younger patients, we use play – like special board games and dolls and role-playing. And for older patients and their families, it's typically talk therapy."

Thanks to a new \$6.6 million gift, BEST plans to expand to reach nearly every child and young adult seen for rare blood diseases or cancer at UCSF Benioff Oakland. This is the latest investment by the Braddock Philanthropies, which provided the initial funding to launch BEST five years ago.

The expansion will triple the number of behavioral health screenings of blood and cancer patients from newborn to age 26 so all are screened. It also will triple the number of medical clinics in which UCSF BEST clinicians are immersed, bringing the total to 28. Hankin estimates this will translate to an estimated 50% increase in young patients receiving mental and behavioral health services. BEST is the only program of its kind in the Bay Area and draws patients from across California and northern Nevada.

A HEALTHY HEART AND MIND

By the time Brooklyn Bertilacchi was 1, she had already undergone four surgeries at UCSF Benioff Children's Hospitals to correct a severe congenital heart defect that was diagnosed at birth.

Life proceeded normally for the next few years. But when Brooklyn started preschool, her mother, Katie, noticed that something was off. Brooklyn was struggling to focus and follow directions. While doing homework, she would write normally, then backwards, then forget how to form the letters. As the other kids learned to read, Brooklyn grew more frustrated. Things only got worse in kindergarten.

Katie started to research. Articles online linked congenital heart disease with ADHD and autism. She reached out to Brooklyn's pediatric cardiologist, UCSF's Lisa Arcilla, MD, who confirmed it: More than half of children with congenital heart disease experience neurodevelopmental difficulties that affect their behavioral and cognitive development.

"Part of the brain's job when it's young is to continue growing," says Shabnam Peyvandi, MD, MAS, a pediatric cardiologist. "When the heart can't do its job, the brain doesn't get the nutrients it needs, so the brains of children with congenital heart disease end



Pretty much everything that has ever saved her life or made her life better has come out of philanthropy.

—Katie Bertilacchi

up developing differently from the brains of other kids."

In 2017, UCSF took these findings and launched the groundbreaking Healthy Hearts and Minds (H2M) Program to identify and address neurodevelopmental concerns in children with congenital heart disease as early as possible.

Brooklyn was referred to H2M, and after an eight-hour assessment, was diagnosed with ADHD. The family received a detailed report containing recommendations for treatment, education, therapy and parental support.

Katie says she uses the report like a guidebook to get Brooklyn the accommodations that she needs at school and help her regulate her emotions at home. One of the recommendations was behavioral therapy, where the Bertilacchis learned coping mechanisms that help Brooklyn calm her brain, mitigate feelings of confusion, and build her self-esteem.

"It has been vital to our overall healing process," Katie says. "H2M has made her life easier, our life easier, and it's helped us enjoy each other more. You can fix a heart with heart surgery, but you need to fix the whole person, the whole body, the whole mind, the whole spirit."

The challenge is that the wait for H2M services is long – typically over six months – and studies show that early intervention is crucial to a child's long-term success. But the program, which was launched with philanthropic support, relies on private funding to expand.

The Bertilacchis have taken steps to close the gap by participating in hospital fundraising events and holding their own annual fundraising campaign.

"Pretty much everything that has ever saved her life or made her life better has come out of philanthropy," Katie says. "It's programs like these that give kids like mine a real chance at life."



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