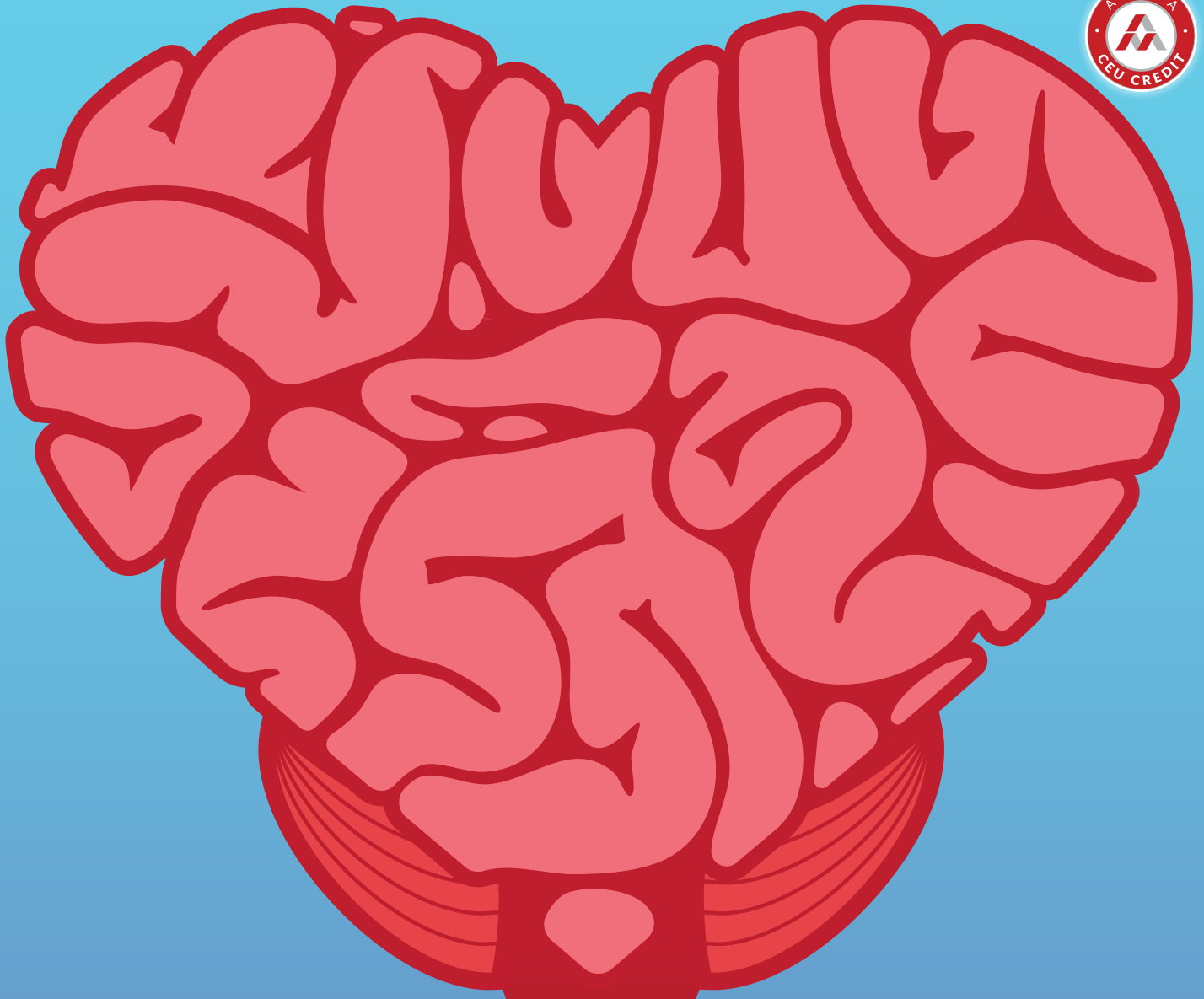




A CHANGE OF HEART

How Cardiac Psychology Is Reshaping Cardiac Care

Cardiovascular disease is the leading cause of death in the United States, according to the American Heart Association (AHA).¹ For many people, it is also a chronic health concern, with conditions such as coronary artery disease, valve disease, heart failure, and arrhythmias affecting a person's physical health over the course of years.

Living with cardiovascular disease can also impose a toll on a person's emotional health, increasing risks for anxiety, depression, and psychological stress. Major depression affects an estimated 20% to 40% of patients with cardiovascular disease.² Further, as many as 65% of individuals who experience a heart attack (myocardial infarction) report symptoms of depression after the event.²

Cardiology care historically has largely focused on treating disease and physical health outcomes, with mental health concerns either underrecognized or treated as a separate concern. With the rise of preventive cardiology in recent decades, the treatment lens has widened to include the importance of addressing modifiable risk factors for heart disease. Yet even the AHA's Life's Essential 8 checklist for good health, which highlights eight key prevention categories (diet, exercise, blood pressure, blood sugar, cholesterol, weight management, sleep quality, tobacco use, and activity levels) does not mention mental health.³

Mind the Gap

In recent years, a focus has emerged on the links between mental health and cardiovascular disease. A 2021 statement from the AHA cites mounting evidence of a causal link between psychological health and biological processes that may contribute to cardiovascular disease.⁴ Notably, this causal relationship is also a reciprocal one. Psychological stress and mental health issues can be both potential risk factors for cardiovascular disease as well as a

complication of existing disease.

Today, initiatives among health systems to support a more integrated, collaborative care treatment approach toward mental health and cardiovascular disease are on the rise. For instance, at UW (University of Washington) Medicine in Seattle, mental health care services are now available for select cardiac patients through the Cardiac Resilience program. The new program began in late 2025 as a collaboration between the UW Medicine Heart Institute and the Division of Rehabilitation Psychology and Neuropsychology in the Department of Rehabilitation Medicine.

The Cardiac Resilience program currently serves two categories of heart patients: electrophysiology patients and adult congenital heart disease (CHD) patients.⁵ The former are patients with heart-rhythm disorders who have experienced CPR or implantable cardioverter-defibrillator (ICD) shocks. The CHD patients are adults with a history of heart surgeries from childhood.

"For patients with congenital heart conditions or who have had ICD shocks, we offer specialized psychological care to help them cope or adjust to their cardiac condition," says Tracy Herring, PhD, a rehabilitation psychologist with the UW Medicine Heart Institute. "This includes helping manage symptoms of anxiety or depression, as well as addressing the distress associated with living with a chronic medical condition. For instance, we can help with issues related to the psychological effects of defibrillator or ICD shocks, which can be traumatic. The goal is that we're not ignoring the mental health issues

in these patients. These cardiac conditions can affect how patients feel mentally, so it's important that we attend to those needs."

Notably, the Cardiac Resilience program integrates mental health care directly into cardiology services. This allows cardiologists to refer patients to Herring rather than to separate or outsourced mental health facilities or therapy providers. This prevents possible delays in access to mental health counseling but also aligns patients with a psychologist who is already working closely with the referring cardiology team.

For many CHD patients, Herring emphasizes that stress and fears about their condition are not uncommon. "In terms of congenital heart disease, these are adult patients who often have had their condition since birth," she observes. "There's often a lot of uncertainty for these patients. 'Am I going to need a valve replacement in the future? Is my health going to worsen or decline?' I think our role as psychologists fits really well with managing or supporting patients who are navigating uncertainty, future potential for more surgeries or interventions, and concerns about life expectancy."

Referred for Counseling

What happens when an eligible cardiology patient is referred for counseling? "When someone is first referred to me, I start with an intake to get a better sense of what their presenting concerns are," explains Herring. "From there, I collaborate with the patient to figure out what behavioral or psychological skills we can offer this patient. I think about it in terms of improving their

functioning and resilience [and] improving their ability to tolerate the distress that can come with living with this type of medical condition. I often use cognitive behavioral therapy and acceptance and commitment therapy to guide my work with patients."

"In terms of our focus, we try to help patients adjust their thinking from being unhelpful or catastrophizing, from worst-case scenario to more optimistic and help-

Living With an ICD

For patients diagnosed with ventricular arrhythmias, an implantable cardioverter-defibrillator (ICD) is a potential lifesaver. When detecting an abnormal heart rhythm, the battery-powered device delivers an electric shock or uses anti-tachycardia pacing to restore normal heart rhythm.

While medically necessary in high-risk patients, an ICD can also cause psychological stress. Up to 20% report symptoms of posttraumatic stress disorder after shocks or cardiac arrest. Along with other contributing stressors, experts agree psychological support for ICD patients can be an important treatment tool.⁹

ful,” says Herring. “This can influence how people feel physically and mentally, and that can then influence their behaviors. The goal of acceptance and commitment therapy is to increase psychological flexibility by helping people accept difficult thoughts and emotions in order to engage in value-directed living.

“Sometimes the focus is just on basic problem-solving too,” adds Herring. “A perk of my job is that I have more time to sit down with patients and identify the problem. So, you’re nervous about surgery? What can we do to support you in getting the information you need? What steps can we take that are concrete [and] action-oriented to get you [the] information you need to feel better about your situation?”

Herring notes that cardiac psychology is usually time-limited. “The goal for our clinic is brief therapy,” she says. “That can involve one session, or it could be six to eight sessions. It’s very much targeted therapy, meaning it’s focused on the cardiac issues. When people might need longer-term therapy, I will refer them to a therapist in the community. The good news is we can usually get a lot accomplished in a few sessions. It can be quite rewarding.”

Herring also works closely with the program’s three cardiologists to ensure the patient’s mental health needs are being met. The program uses brief patient surveys before each visit to quantitatively measure and track the patient’s psychological symptoms and progress over time.

While a newer program, the broader links between mental health and cardiovascular disease certainly frame the collaboration. “We’re seeing in the [clinical] literature a strong correlation or connection between mental well-being—just the level of distress a person experiences—and how one functions or how one is doing physically,” says Herring. “We know we cannot ignore the role that mental health and well-being play in people’s cardiac well-being or their

“We do not consider patients in our integrated clinic to necessarily have a psychiatric or mental health illness, but rather we acknowledge that all humans have some degree of psychosocial symptoms (such as anxiety and depression), and that complex cardiac conditions may worsen these symptoms from time to time.”⁵

—UW Heart Institute

cardiac functioning.”

In fact, these links are often a discussion topic in therapy, reports Herring. “I talk a lot with my patients about the mind-body connection and how they are deeply intertwined. Think just about panic attacks, for example; they can present as people who come into the [emergency room] thinking they’re having a heart attack. When we feel worse mentally, we’ll often feel worse physically. And, vice versa, if we help people feel better mentally, they’ll often notice that their physical symptoms or condition can improve. I believe cardiology is a perfect place for this work.”

As a collaborative initiative, UW Medicine’s Cardiac Resilience program underscores the idea that mental health care should be considered a normal or integral aspect of cardiology care. “Anything we can do to destigmatize mental health care is a win,” says Herring. “A line I like to use when I lecture is, ‘Just as I would refer you to a cardiologist for your heart health, I’m going to refer you to a psychologist for your brain health.’ We want to normalize mental health care as just another referral to improve your health. My goal is to help destigmatize mental health care and get people access to care who might otherwise be reluctant.”

Take a Beat

In October 2021, as a response to the COVID-19 pandemic and other soci-

“I know visits are short and primary care providers have a lot of patients they see in a day. But those extra 30 seconds it takes [for staff] to inquire [and] listen for any type of indicators that maybe this person is struggling from a psychological standpoint could send them on a totally different path in terms of their care. I think it can be a game changer.”

—Tracy Herring, PhD

etal factors, a national emergency in youth mental health was declared by the American Academy of Pediatrics and other medical organizations.⁶ Even now, a mental health crisis continues to significantly affect American youth.⁷

For young people, the psychological stress and pressures of growing up with CHD can potentially weigh even more heavily on their mental health and well-being.

Thanks to advances in medical treatment, today about 90% of CHD patients survive into adulthood and live full lives.⁷ But CHD patients may also be more vulnerable to struggles with anxiety, depression, and other challenges. Thus the psychosocial needs of these young patients must not be neglected, caution experts.

“It is essential to recognize mental health care and support as a core feature of the illness experience for young people with congenital heart disease,” says Melissa K. Cousino, PhD, a pediatric psychologist and director of the University of Michigan Congenital Heart Center Psychosocial and Educational Program (M-COPE) in Ann Arbor. “Children with even relatively simple forms of CHD have roughly 5 times greater odds of developing anxiety or depression compared to healthy peers. For those with more complex disease, such as single ventricle heart disease, the odds climb to 7 times higher. Two-thirds of those patients will experience a diagnosable mental health condition at some point in their lives.”

Notably, the mental health needs of younger cardiac patients can differ from those of adult cardiovascular patients. “What makes the pediatric and adolescent experience distinct from what we see in adult cardiovascular patients is the developmental context,” says Cousino. “Adults who develop heart disease have typically already navigated the formative milestones of childhood and adolescence. Young patients with CHD

are navigating those milestones while simultaneously managing a serious chronic illness. Most importantly, there is growing evidence that the relationship between psychological health and cardiovascular outcomes is bidirectional. Psychological distress doesn't just accompany heart disease; it can worsen it. Stress, anxiety, and depression influence inflammation, autonomic function, and health behaviors in ways that affect the heart and patient outcomes directly, including survival. Mental health care *is* CHD care.

"In my experience, young people with CHD have varying and understandable fears and concerns," notes Cousino. "For many, their worries or challenges are quite similar to their peers without heart disease—friends, school, relationships. [They also have] subset worries about upcoming procedures, the uncertainties surrounding their condition and course, and the impact of their condition on their daily lives and interests. Importantly, what I have witnessed most is the remarkable resilience of young people living with CHD. Their worries and concerns are often 'normal responses to the abnormal,' as I often say. Validation and support specific to this can be especially powerful.

"In terms of building resilience and improving well-being, young people with CHD need to be seen as a whole person, not a cardiac diagnosis," adds Cousino. "Validation of their experiences is critical. Providing them with opportunities to express their needs and preferences specific to their health care, medical communication, and decision-making is imperative. Some want to be very informed. Some prefer to know less. Supporting them in the way they best cope with such information is most helpful. For care teams specifically, the message I'd

"If you have anxiety, stress, and mental health issues, this involves your brain, and that's connected to the rest of your body and also to your heart. You can start out with no problems at all in your heart, but if you have constant anxiety and are so anxious that you overeat and don't exercise, this can increase [the] release of stress hormones—e.g., cortisol, epinephrine, and norepinephrine. If you chronically have those hormones turned on, that can raise your blood pressure. In turn, this raises your chances for coronary artery disease and also for a heart attack. And if you get a heart attack, this can cause even more stress. All of which reminds us of why we're focused on prevention and healthy living."

—David Thoele, MD

offer is this: psychological care cannot be an afterthought that happens only in crisis. It needs to be woven into routine cardiac care—normalized, not stigmatized, and accessible without a patient having to advocate for themselves to receive it."

A Vessel for Heartfelt Care

The mission and goals of the M-COPE program reflect the advances in treatment for CHD in recent decades.

"The M-COPE Program was formally established in January 2020 at the University of Michigan Congenital Heart Center at C. S. Mott Children's Hospital," says Cousino. "Its founding reflected a recognition that survival alone is no longer sufficient as a goal in [CHD] care. As surgical and interventional outcomes have dramatically improved, we've shifted our attention appropriately toward quality of life and building the infrastructure to actually deliver comprehensive psychosocial support within a cardiac setting.

"The impact of M-COPE has been tangible," adds Cousino. "Since its founding,

"Ideally, every cardiac team should have a member who specializes in stress and anxiety—a psychologist, social worker, or someone who recognizes the stress people go through. I spend a lot of time with my patients, and it's challenging because, as a doctor, sometimes your time is limited, especially for those who are doing procedures like surgeons or interventional cardiologists. But someone on the team should be doing this work—reaching out to help patients get through the stress and anxiety they may have while they're in our care."

—David Thoele, MD

outpatient cardiac psychology referrals have increased 2.5-fold. We've developed novel group and digital interventions that have reached patient populations who previously had limited or no access to mental health services within their cardiac care. We've also built a fellowship training model that is producing a new generation of cardiac psychologists—clinicians specifically trained to work at the intersection of heart disease and mental

health, which is itself a critical and underserved pipeline. What I'm most proud of is that M-COPE integrates research, training, and education into a single program so that what we're learning from our patients is informing the science, and what the science is teaching us is improving how we care for patients. That kind of feedback loop is essential."

As a practical resource, M-COPE also sponsors the WE BEAT program to support psychological well-being among its adolescent patients. "WE BEAT—which stands for Wellbeing Education Program: Breathe, Energize, Adjust, Thank—is a structured, evidence-based psychological intervention designed specifically for adolescents with heart disease," explains Cousino. "It was developed by a clinical psychologist with more than a decade of experience working with youth facing serious cardiac illness, and it draws on cognitive behavioral theory, mindfulness-based approaches, stress management and resiliency science, and positive psychology. The program consists of five group-based telemedicine sessions, each approximately 45 minutes long, delivered once a week over five consecutive weeks."

Notably, these efforts are also being studied toward the goal of improving evidence-based mental health care for young cardiac patients. "WE BEAT is currently being evaluated

in the largest and most rigorous psychosocial intervention trial ever conducted in adolescent congenital heart disease—a multisite pragmatic randomized controlled trial through the Pediatric Heart Network, funded by the National Heart, Lung, and Blood Institute. We are enrolling adolescents ages 12–17 with moderate or severe CHD across multiple sites. We are generating the kind of rigorous evidence the field needs to establish psychological intervention as a standard of CHD and pediatric cardiac care, not an optional add-on.”

While these achievements are impressive, Cousino says more work remains, much of which involves addressing systemic barriers in U.S. health care that limit access to care for populations in need.

“In terms of challenges and areas for growth, I’d be candid: we are still not reaching everyone who needs M-COPE services,” she says. “This is multifactorial. While stigma regarding accessing mental health services has declined in recent years, barriers to accessing such services remain. First, mental health insurance coverage remains limited for many patients. For some of our patients, they have medical coverage at our institution but cannot access our specialty mental health care services. State-funded programs for children with chronic conditions are not always inclusive of mental health services. Reimbursement for pediatric mental health care is very low in our country. As such, hiring and retaining the needed workforce to meet the needs of young people and their families is an ongoing challenge. Advocacy at the national, state, and institutional level, as well as institutional commitment to funding and sustaining programs such as M-COPE, is of utmost importance.”

Take the Pulse

In the day-to-day clinic world, cardiovascular medical care understandably involves some level of stress for many patients and families. After all, the function of the heart

Resources

Cardiac Resilience Program

UW Medicine



Congenital Heart Center Psychosocial & Educational Program (M-COPE)

University of Michigan Health



is essential to life.

“As a pediatric cardiologist, I just assume there’s a certain amount of anxiety and stress with the patients and families I see in my office or in the hospital,” says David Thoele, MD, a pediatric cardiologist with Advocate Children’s Hospital in Park Ridge, Illinois. “For those with very serious heart conditions, those cases can definitely be very stressful.”

As Dr. Thoele notes, CHD involves problems with the heart’s structure that are present at birth and prevent normal blood flow. These anatomical defects can involve a hole in the heart wall or blood vessel and heart valve issues. The defects vary from minor, asymptomatic issues to more serious, life-threatening conditions.

“If they’re very sick, some CHD patients

might be on a ventilator, or they are going through surgeries,” says Dr. Thoele. “Now, for the child, that’s going to cause psychological stress and anxiety down the road because that’s part of your human experience. We know that can have an effect later on. But in the short term, who is really stressed out are the parents and family, and they’re often quite stressed out.”

As a physician, Dr. Thoele tries to directly address the stress patients and families can experience at appointments. “In my experience, I think the most important thing to deal with this anxiety is first just to acknowledge it,” he says. “If a child has a more serious condition, I often find a lot of the family’s anxiety is because the condition didn’t get explained properly. They’re anxious because their doctor heard a murmur in their child and were told it could be a valve problem or ‘a hole in the heart.’ Often, I will try to just explain things in plain English, which can lower the anxiety.”

Taking the time to answer questions and clearly explain the clinical diagnosis can go a long way to relieve stress, says Dr. Thoele: “For instance, a patient may have a small hole in the heart called a *ventricular septal defect* or an *atrial septal defect*. Now, sometimes those are serious and do require surgery, but very often there is a congenital condition that just has to be followed infrequently in the clinic, meaning a visit every year or two. With these cases, I will ask the parents if anyone has ever explained what it means to have a hole in the heart. If they say

no, [and] it just sounds bad, I might use some analogies to explain it better. For example, I’ll explain how this is not like your car is going to fail, but rather instead of getting 40 miles to the gallon, you will get 37 miles to the gallon. But the car still runs. There’s also a very good chance this hole will close up and your child will never need surgery.

“I might also explain that the heart is not like a hole in a bucket where you start out with a full bucket of water, and after a while the water’s

“Rehabilitation psychology is a subspecialty of psychology. The focus is on working with people who are living with medical conditions and [disabilities]—physical as well as other [disabilities]. Often, our work is around issues related to adjustment to disability or a medical condition, which involves coping or adjustment to change and function. Traditionally, we would often see people with brain injury or spinal cord injury. Thankfully, we’re now well positioned to be in settings where people are living with any type of real medical condition. We also feel fortunate that our cardiology team at UW Medicine recognizes that our specialty pairs well with their patient population. It’s been a good collaboration.”

—Tracy Herring, PhD

leaking out and pretty soon you have an empty bucket,” adds Dr. Thoele. “With the heart, the hole does not leak out. In human beings, the middle of the heart has a wall going down the middle, and if there’s a little gap in the top part, that’s called an *atrial septal defect*, and the bottom part is called a *ventricular septal defect*. This just means [that] because the pressure’s higher on the left side than the right side, it makes the heart a little less efficient. But blood doesn’t leak out of the cardiovascular system. In fact, small holes don’t really have any effect at all. With larger holes, it could mean the child might not be gaining weight as well. And sometimes the child will need medicine or surgery. But often even the large holes will get better with time. I do a lot of these types of explanations, which I find helps with stress.”

As director of the narrative medicine program at Advocate Lutheran General Hospital, Dr. Thoele is also known to take a few moments with patients and their families to teach them breathing exercises and other techniques he uses to reduce their stress or anxiety.

Similarly, whether working in cardiology, primary care, or other settings, medical assistants can also play a valuable role in cultivating sensitivity for the psychological stress or mental health challenges patients may be experiencing.

“Since the COVID-19 pandemic, I think medical assistants and other health professionals are starting to recognize more fully the importance of mental health in our overall health,” says Emily Brewer, CMA (AAMA), a southeastern Michigan-based medical assistant whose 15-year career includes experience in family medicine and cardiology settings. In their patient interactions, medical assistants can help normalize a focus on mental health care as an aspect of health that can and should be discussed without stigma or embarrassment, suggests Brewer. Doing so might lessen the likelihood these issues are ignored or not addressed in a timely way.

“As medical assistants, it’s important that we validate patients [and] that we don’t just shrug off their concerns or things they might be telling us,” says Brewer. “It is so

important for medical assistants to take detailed notes and observations when talking with patients and to note not only what a patient is saying, but also what we are seeing while they’re talking. Too often we try to rush without making observations. I think there are things patients say that can get overlooked because we only have a certain amount of time.”

Brewer speaks not only from experience working with patients. “About a year and a half ago, I was diagnosed with supraventricular tachycardia after spending my whole life in normal sinus rhythm,” she reports. While personally relating to patient experiences with psychological stress, over the years Brewer has also seen multiple patients who had heart attacks who were experiencing significant stress in their lives. “We also know about ‘broken heart syndrome’—literally cardiomyopathy caused from stress and/or grief,” she observes. “I think we always have to look at how stress and our mental health affect our [physical] health.”

In fact, the AHA describes stress-induced cardiomyopathy, which medically is known as *takotsubo cardiomyopathy*, as an overt example of a heart condition in which psychological stress can cause an immediate adverse effect on heart function.⁴ The condition involves a temporary weakening of the left ventricle, which is the heart’s main pumping chamber. Most cases of *takotsubo cardiomyopathy* occur in the older female population (i.e., ages 58 to 75).⁸

In today’s stressful world, health professionals must be cognizant of the links between mental well-being and cardiovascular disease. This entails not only recognizing the ways our behaviors and lifestyle habits are affected by psychological stress, but also how mental health intersects with the body’s physiology and biochemistry.

While evidence of these mind-body links and their consequences has been known for some time, there is growing recognition in medicine of the need for a more holistic, resilience-focused treatment approach for patients with cardiovascular disease. ♦

The CE test for this article can be found on page 26.



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