The health connection between cardiac arrest survivors and their loved ones

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Lynn and Kent Wiles agree that the day she died—then was revived—was miraculous.

The couple's experience then and in the years since also illustrates how recovery from a cardiac arrest can both unite and disrupt families who go through it together.

Kent, 62, still has to pause when he retells what happened on July 31, 2020. How he and Lynn had gone shopping for groceries. How he'd brought the first bags into their Albany, Oregon, home and turned around to help with the rest. And what he saw next.

"Right there as you walk in the front door right on the carpet, Lynn was dead. She had a sudden cardiac arrest."

His voice catches, and he takes a breath. "And it's tough to talk about still."

He recalls how her face and mouth were blue and how her eyes weren't moving. He remembers calling 911 and beginning CPR—and the "horrifying" choking sound she made with what could have been her dying breath. He also remembers the neighbor who helped, the paramedics who arrived with a defibrillator, the joyous news that they had revived her.

Lynn recalls none of that.

She remembers some of the ride home from the store, a glimpse of flashing lights on the ambulance that took her to the hospital, and waking up that day to the news she'd had a heart attack that led to a cardiac arrest. And learning that her husband had saved her.

"He was very conscious and very alert and very heroic during the entire thing," she said. "And I was dead."

Those linked-but-separate experiences distinguish cardiac arrest from other life-threatening illnesses, said Dr. Sachin Agarwal, director of the neurocardiac program at New York-Presbyterian Hospital/Columbia University Medical Center in New York.

Cardiac arrest is an electrical malfunction that causes the heart to stop beating suddenly. It can be caused by a heart attack, which is when blood flow to the heart muscle is blocked. Because most cardiac arrests occur at home, family members often are the initial rescuers.

For them, witnessing a cardiac arrest is a life-altering moment. "You were calling 911," Agarwal said. "You are now providing CPR. You are worried about your kids sleeping in the other room and what will happen if they walk in and see their loved one being resuscitated."

Dr. Cynthia M. Dougherty, the Charles and Gerda Spence Endowed Professor in Nursing at the University of Washington School of Nursing, said that "watching your loved one being dead and having to resuscitate them, or watch somebody else resuscitate them, is a very traumatic event for caregivers."

And it can be just the start of the trauma, said Dougherty, who also is a professor in the cardiology division of the university's medical school and a nurse practitioner at the Seattle VA Medical Center. She began doing research into cardiac arrest survivors and their families in the 1990s and co-wrote a 2020 American Heart Association scientific statement on cardiac arrest survivorship.

"The scariest part during hospitalization for caregivers and spouses is whether the patient is going to wake up at all," she said. Nationally among adults, only 9.3% of out-of-hospital cardiac arrests treated by emergency workers survive, according to AHA statistics. But even if those who do survive might be unconscious for days.

While loved ones wait, Dougherty said, they have to wonder not only about whether the person will live, but whether they'll be neurologically disabled if they do.

"The early days are really, really hard," she said.

And the person who had the cardiac arrest will probably remember none of it.

"Sometimes, the patient has to be reminded over and over again for a number of weeks, or even up to a few months after they get home, about exactly what did happen," Dougherty said. "Because the only reference they will have is the story that someone else tells them."

Many survivors develop post-traumatic stress disorder, which could lead to disrupted sleep and other cardiovascular health issues. Agarwal's 2019 study published in *Critical Care Medicine* showed that survivors who develop PTSD symptoms have a significantly higher risk of further cardiovascular events or death within a year compared to survivors without PTSD symptoms.

Family members also can develop post-traumatic stress that "is equal or higher than what the survivors have," Agarwal said. Caregivers, or co-survivors, report problems such as depression, poor sleep and feeling isolated for months or years afterward.

But the roots of the stress differ, he said. While co-survivors are processing the shock of what they saw, survivors are coping with their time in intensive care, trying to process how their bodies betrayed them and looking for signs it could happen again.

Eventually, Dougherty said, the survivor's focus becomes trying to heal. "They want to move forward."

But if their partner is still processing what they witnessed, that can lead to a divide.

"Oftentimes, what happens is that the patient doesn't really realize the serious impact of their cardiac arrest on their partner," Dougherty said, while the partner may be afraid to say how scared they are and how awful the experience was because they don't want to frighten them.

The different perspectives can lead to problems that can affect everyone involved. Co-survivors can become overprotective, which limits their ability to return to work or socialize. That, Agarwal said, can lead to a "vicious cycle, where poor mental health leads to poor physical recovery, and then the quality of life of the whole family goes down."

The interlocked factors, Agarwal said, mean that health care workers need to treat not just the survivors, but also their partners.

"Unless you heal them together, it's not going to work," he said. "One of them will keep affecting the trajectories of recovery."

Families have told researchers that what helps them most is clear explanations of what happened and what is likely to happen next. "People are so hungry for information because the medical teams, due to lack of time, don't communicate enough, and when they do, it's filled with medical jargon," said Agarwal, who is conducting ongoing research about the best ways to present such information.

Dougherty has done research involving patients with implantable cardioverter defibrillators, or ICDs, which deliver a shock to prevent cardiac arrest. Her work, which involved a program that included education and access to a nurse who could answer questions, found that when patients and partners both had access, both saw more benefits than patients who went through it alone.

The AHA statement that Dougherty helped write noted a lack of specific research into many things that could help survivors and their families.

But Agarwal said that everyone involved—including children—needs to be open and communicative and look for ways to heal together.

"If they try to do it independently," he said, "I think it's not going to work."

Dougherty said that partners and patients have separate paths toward healing and that partners definitely deserve help, "but the health care system does not have a way to offer them substantial support."

Kent and Lynn Wiles agreed that information was an important part of their healing.

Lynn spent only three days in the hospital, but before she'd left, Kent was already gathering facts about heart-healthy diets. The couple received and reviewed the complete records of Lynn's treatment. Kent even acquired a recording of his 911 call.

For a while, they benefited from a support group over video. Kent also had counseling sessions with a clinical social worker. Lynn has continued to enjoy cardiac rehabilitation. "It's a happy place," she said.

These days, Kent has taken early retirement, while Lynn, now 64, works full time as a medical office receptionist in a cardiology clinic at Good Samaritan Regional Medical Center—working for the same doctors who treated her. The two share their story when asked—and urge people to learn CPR. They laugh together as they correct each other on details of their shared experience, in the way you'd expect a couple who's been married for 20 years to do. They take walks together.

But their paths will always be slightly different.

Each night, when he sits at the dining room table to meditate, he points

to the spot where she fell. Lynn has learned that when she takes off her sandals, she shouldn't leave them crossed—because that's how they were left the day she collapsed, and seeing that unnerves him.

"I don't completely trust when she's out of the room from me," Kent said. If Lynn's supposed to be home, he worries if he doesn't see her right away. "Is she upstairs? And did she die again?" When she's asleep, he rolls over and checks on her "to make sure she's still alive."

Lynn has to tell Kent to back off when he hovers over her while she slices vegetables. (He worries about her cutting herself while she's on blood thinners.) But she also leaves reassuring notes, so he knows where she is when she steps out.

His hypervigilance is a way of calming his nerves, he said, but things have gotten better over time. "I guess, in a way, I'm coping with it every day. But I'm also experiencing gratitude for her."

He's had a lot of that. "I've experienced immense gratitude," he said. "More than I've ever experienced before."

Provided by American Heart Association

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