St. Pete mom creates overdose detection app

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When Carolyn Bradfield's daughter Laura died from a drug overdose a few days before Christmas in 2017, she committed to helping other families avoid a similar tragedy.

Bradfield, a St. Petersburg resident, is now using her subject and technological expertise to mitigate the exponential rise in fatal overdoses. She founded Pathroot Health, formerly InterAct Lifeline to aid the 85%of people - like her daughter - who relapse after exiting rehabilitation and treatment centers.

Her solution is Pathroot, a mobile application that utilizes biometric data from wearable fitness trackers and smartwatches. If vital signs indicate a potential overdose, the app will notify emergency contacts and direct first responders to the user's location.

"She (Laura) would be alive today if I would have had that early warning system," Bradfield said. "It's not revolutionary technology. It's a matter of taking technology that is already out there and recombining it in a way that serves a different purpose."

Carolyn Bradfield's daughter Laura (right) was 29 years old when she suffered a fatal overdose. Photo provided.

Bradfield - who has previous experience creating teleconferencing, telemedicine and software-as-a-service (SAAS) platforms - said a person's heart rate will soar and then plummet as they experience an overdose. The loss of blood pressure prevents oxygen from reaching the brain.

She noted that Laura overdosed at a gas station in Georgia, just a mile from a trauma center. Bystanders watched as the 29-year-old died.

Laura's death coincided with the preponderance of wearable tech that monitors heart rates. Bradfield realized she could collect that data through a third-party app.

"And I found this company that integrated with all the devices," she added. "They organize it and normalize it and give it to me. And now that I know your heart rate is not where it's supposed to be, what do I do about it?"

Parents can enroll minors in Pathroot, while adults must willingly participate. Users enter an emergency contact list, and incoming data triggers a three-step outreach protocol.

If the platform detects unusual biometrics, it will ask the user for a status update. They have 30 seconds to respond before Pathroot notifies emergency contacts.

Bradfield said she would also incorporate a call center, and operators would notify first responders as a last resort. "That's the last thing you want to do because there could be an error," she said.

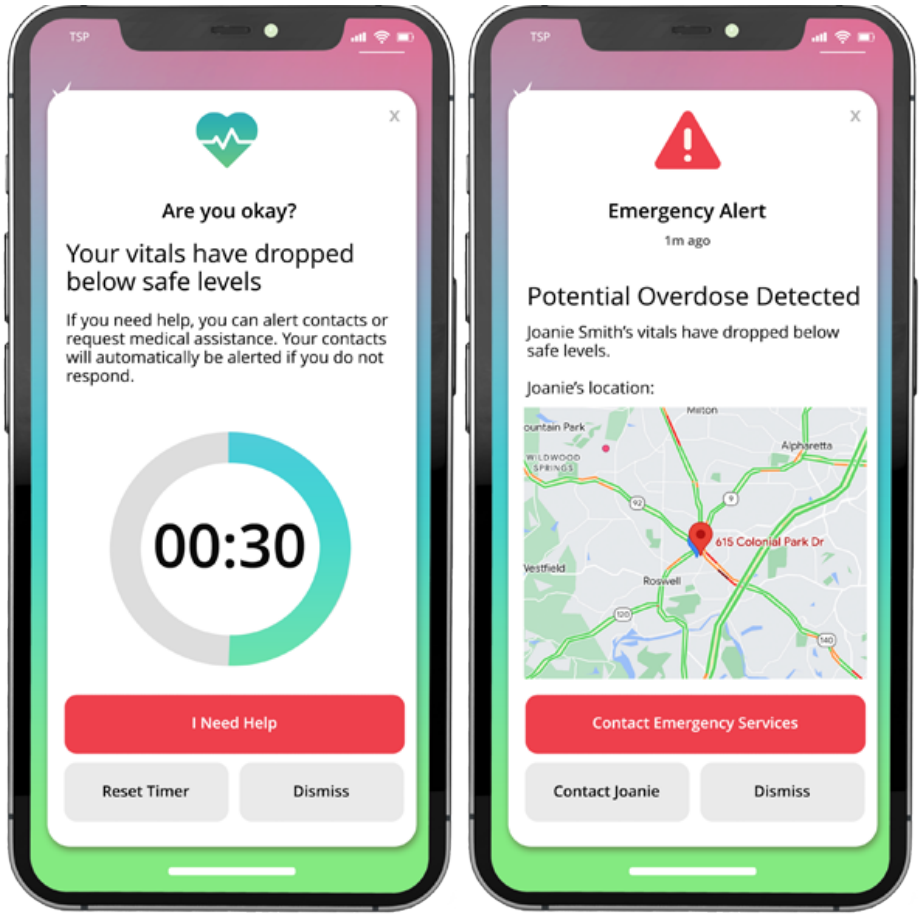
She compared the system to an Amber Alert and said, "We're going to be a little obnoxious

about it. The app is going to make sure you hear it, even if you're on silent mode," Bradfield explained.

Bradfield operated an outpatient mental health and addiction program for adolescents from 2004 until 2007. That experience taught her that parents often failed to realize the extent of their child's issues.

She also sought to understand why 85% of people exiting rehab relapsed within 90 days. Bradfield said that is due to the loss of monitoring and oversight.

Pathroot's calendar will add daily commitments and schedule text reminders to foster accountability. The platform will also conduct periodic check-ins, access the device's camera and take a picture to confirm someone is at a specified location.



Client Alert

Emergency Contact

Carolyn Bradfield said she would open Pathroot to the public by early 2024. Image provided.

Another integral component is its connected online portal. That provides a continuously updated digital library with 45 content categories.

"I'm not a big believer in just having an app," Bradfield said. "I think that's lazy. You have to think about the whole person."

Many of its online videos help parents learn how to talk to their children. Bradfield said 65%

of overdose deaths occur in people never diagnosed with substance abuse disorder.

Mitigating the ongoing fentanyl crisis is a particular focus. Bradfield noted that many recreational users receive drugs laced with a synthetic opioid 50 times more potent than heroin.

Her daughter battled addiction for 15 years before her death.

She plans to release the app by early 2024. Bradfield also launched Pathroot Cares, a nonprofit that will fund subscriptions for low-income families.

More than one person in Pinellas County died every 14 hours from an opioid-related overdose in 2021, according to the District Six Medical Examiner's Office. Bradfield compared mitigating the problem to a game of "Whack-a-Mole."

"Can you put enough criminals away?" she asked rhetorically. "Can you educate enough people? You're going to kill a lot of people ... before you get that figured out. So why not slap something on somebody's wrist? And if they make a mistake, you can save them.

"Let's give somebody a safety net."

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