

The Boston Globe

THURSDAY, APRIL 14, 2022

Business

A little reward for sobriety makes a big impact

Boston startup's app tackles addiction by offering dollops of cash and accountability



SUZANNE KREITER/GLOBE STAFF

Richard Kostigen, a recovering alcoholic, is a proponent of the DynamiCare Health app. “Just that accolade of the \$5 reward... was something that I could build on,” he said.

By Aaron Pressman, *Globe Staff*

On Christmas Eve in 2017, Richard Kostigen found himself stumbling around the Boston Long Wharf marina, drunk and planning to kill himself.

But Kostigen slipped and fell on the ice. Bleeding and missing a tooth, the 57-year-old managed to pull himself into a local bar, where he called his sister for help. He was once a successful commercial developer who worked on a project for the Boston Garden site. But his drinking had ruined his marriage and his career in real estate and sales. After a stint in detox, he ended up at the Gavin House recovery home in South Boston.

There, a high-tech twist helped Kostigen break free of his addiction. And now, more than four years later, he is sober, repairing relationships with friends and family, and working part time for the developer of the app he says helped save his life.

It's made by Boston startup DynamiCare Health, and here's how it works.

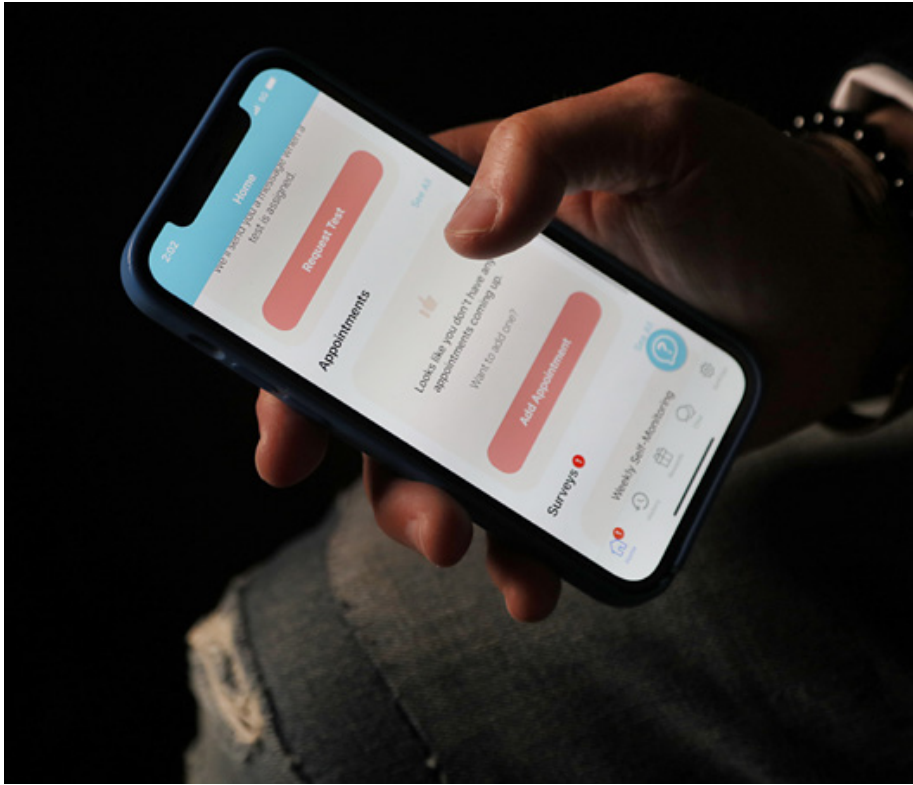
Researchers have known for years that offering people struggling with addiction small rewards, like vouchers or gift cards, for making positive changes can help break the cycle of drug or alcohol dependency. Known as “contingency management,” the treatment works by triggering the same instant gratification response in the brain that someone might get from substance abuse. But contingency management has

been difficult and expensive to administer, while also being criticized for giving money that might be spent inappropriately.

“All the drugs of abuse disrupt the brain reward center, which is deeper in the brain,” said David Gastfriend, DynamiCare's cofounder and chief medical officer. “When we just put people in detox and then send them to counseling, we're saying, ‘Use your thinking brain to try and overcome your chemical drive center.’ The problem is, behavior works in the opposite direction.”

The goal of the app, by contrast, is to go right to the reward center.

DynamiCare is among a growing cohort of local software companies using everything from mobile apps to video



SUZANNE KREITER/GLOBE STAFF

The app offers reminders and tracks appointments.

games to treat disease. Known as digital therapeutics, the field includes Akili Interactive Labs, which is developing video games to treat ADHD and cognitive disorders, and Pear Therapeutics, which is working on digital treatments for insomnia and addiction.

At first, Kostigen was skeptical that an iPhone app could help him overcome his alcoholism.

“It seemed like a far reach that I had this piece of technology that I held in my hand every day that could help,” he said. But he made the effort to add his appointments for AA and other meetings, meditation sessions, and other requirements into the app.

As he stayed sober, the app doled out small monetary rewards onto a debit card that could be easily tracked and restricted — not working at places like bars, liquor stores, and casinos. The app also offered uplifting messages, reminders, and tracking of commitments met. DynamiCare pays out the rewards and runs the system in return for a fee that typically is about \$350 per patient per month, charged to health care providers, insurers, and other organizations that work with people struggling with addiction.

Within a few weeks, he was sold.

“When you are in early recovery, not

a lot of people are giving you positive reinforcement,” Kostigen said. “And so at the beginning, just that accolade of the \$5 reward . . . was something that I could build on.”

The app, which also allows people to meet

with counselors via video conferencing, has been tested in five published studies and dozens of pilot programs, improving outcomes for people recovering from abuse of opioids, stimulants, alcohol, tobacco, and nicotine.

In one study last year in the *Journal of Substance Abuse Treatment*, 61 patients recovering from alcohol abuse at Gosnold Treatment Centers clinics in Massachusetts were divided into two groups. Those using DynamiCare ended up about twice as likely to pass urine tests over four months of treatment.

DynamiCare is the brainchild of David Gastfriend and his son, Eric Gastfriend. David Gastfriend is an addiction psychiatrist and the former director of addiction research at Mass. General. Eric Gastfriend worked at a gaming startup in Cambridge and then attended Harvard Business School.

About six years ago, when a family member was struggling with addiction, Eric Gastfriend had an idea about how to solve the cost and accountability problems of contingency management. “Don’t you realize with modern technology every one of those obstacles can be overcome?” he told his dad, thinking of smartphone apps, connected testing devices, and telehealth sessions.

“My jaw just hit the floor,” David Gastfriend recalled. “I said, ‘Eric, if you could integrate that stuff, you could revolutionize my field.’”

The pair incorporated the company with



DYNAMICARE

DynamiCare Health founders David Gastfriend and his son Eric.

Eric as chief executive and David as chief medical officer. They've raised about \$6 million from investors including MEDA Angels, a group of doctors who back small health care startups, and former US representative Patrick J. Kennedy.

DynamiCare has pitched its program to researchers as well as hospital networks, treatment facilities, and insurers. The app helps care providers by keeping them up to date on a patient's progress. That means a counselor will be alerted when someone misses an appointment or drug test and can reach out and try to get the person back on track.

The app also allows people in recovery to self-administer a breath or drug test with a device that connects to the app via Bluetooth, a simpler requirement than having to go to a facility in person.

"I know I can keep going with that instead of being lined up with 34 guys waiting to get into a men's room with a 70-year-old guy watching, and then handing him warm pee," Kostigen said. "It's a lot different, and you start to feel like you're normal. You're not feeling that shame, that stigma."

Though DynamiCare's results have been good, one hurdle to broader

adoption had been a 1970s-era federal law meant to prevent fraud in Medicare and Medicaid. The Anti-Kickback Statute prohibits health care providers from paying or receiving bribes, rebates, or other payments to encourage treatments covered by the government.

Anything over \$75 was considered a potential bribe. DynamiCare started out using lesser rewards, like a \$1 McDonald's coupon, but didn't get the same results as with higher rewards, like the \$5 it offers now.

So the startup sought an exception to the rule. In March, the office of inspector general of the US Department of Health and Human Services issued a nine-page advisory opinion concluding that due to the effectiveness of programs like DynamiCare, an app that paid out up to \$200 per month and \$599 per year would not violate the anti-kickback rules.

The move comes as deaths from drug and alcohol abuse have surged during the pandemic. Almost 92,000 people died from opioid overdoses in 2020, up 30 percent from 2019, according to the Centers for Disease Control and Prevention. And the most recent figures for alcohol-related deaths show a 25 percent increase in 2020

to more than 99,000.

"The opioid epidemic is just off the charts," said John McGahan, president and chief executive of the Gavin Foundation, which runs Gavin House and other treatment facilities. "It's been exacerbated by the pandemic, of course, because it's kept people out and made it harder to receive treatment."

The foundation has seen about 200 people use the DynamiCare app. "It's been a godsend," McGahan said. "We look at this as a life-saving measure and that's why we use it."

Kostigen believed so strongly in it that he has signed on as a customer support worker.

He said he has patched up his relationships with his ex-wife, three children, and three grandchildren and is even starting to think about real estate development again.

"I live a wonderful life and I couldn't be happier," he said. "And I need to share that with others to the best of my abilities."

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