

NH HEALTH

# Can video games help prevent addiction?

Researchers at Dartmouth believe the intervention is effective enough to fund a company offering video games to schools

By [Amanda Gokee](#) Globe Staff, Updated September 25, 2024, 2 hours ago



These images show different scenes in the PlaySmart video game, which is aimed at helping young people learn how to navigate opioids, tobacco use, sexual health, and mental health. PLAYSMART

CONCORD, N.H. — A dark room, head set on, controller in hand, a world flashing across a big screen. Video games are often associated with an escape from reality and immersion

into an online world of competition where hours can evaporate in a flash. But what if such games could help teach young people how to avoid addiction?

Over the course of a decade as an addiction medicine doctor, Lynn E. Fiellin saw patients who were already struggling with drug addiction as young adults.

“If only I knew then what I know now,” she recalled them telling her.

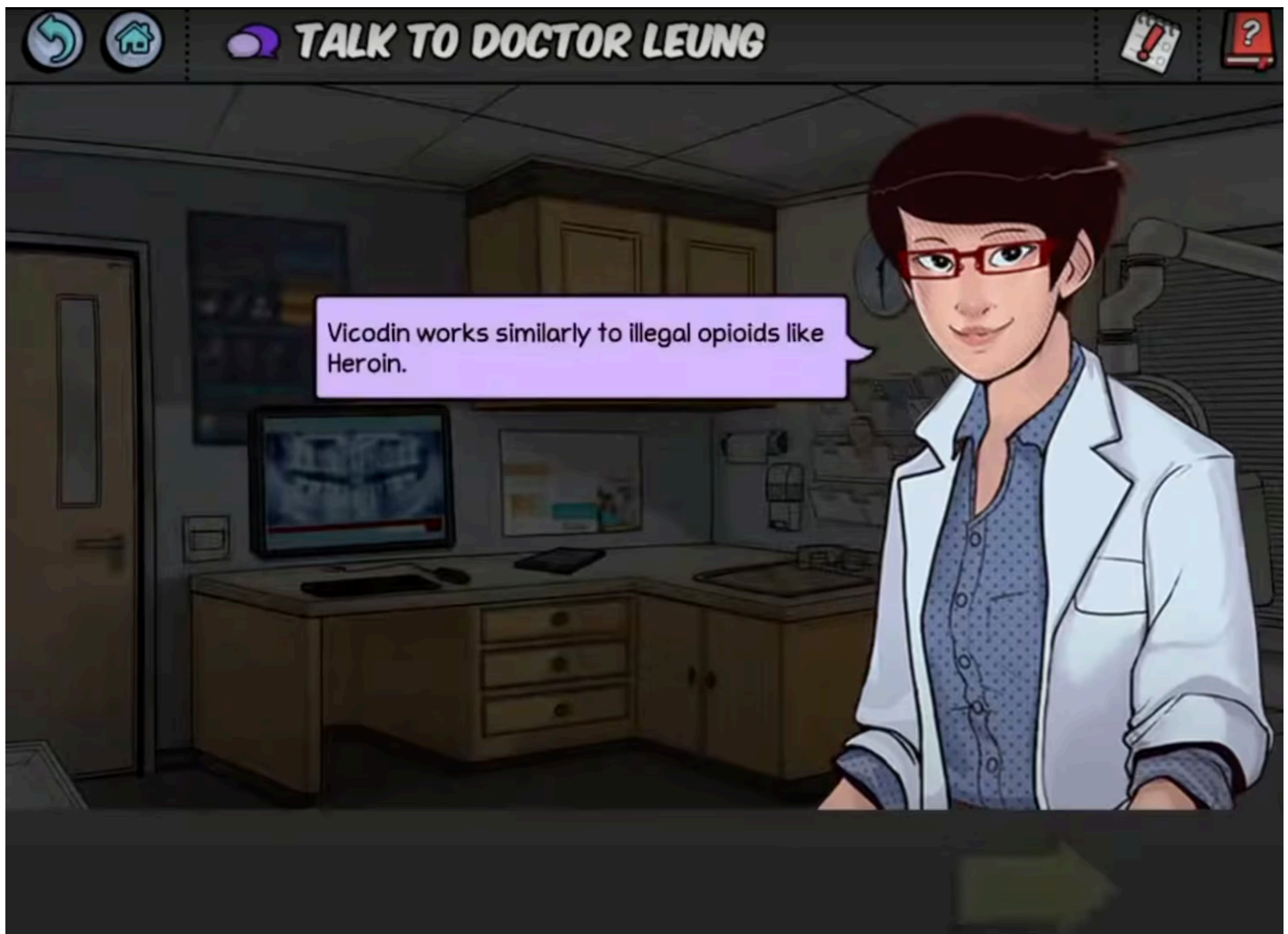
Fiellin agreed. If there were a way to get the right information and skills to children before addiction took hold, she believed the problem could be prevented for many of them.

She wanted to meet young people where they were, which for more than [90 percent of children over the age of 2](#), was on video games. So she launched a company, Playbl, that now offers [five games](#) about how to navigate opioids, tobacco use, sexual health, and mental health.

Now, Fiellin’s games are one of three projects receiving awards from a digital health accelerator at Dartmouth that’s focused on developing and evaluating digital health tools. That includes using technology like mobile devices to better understand people’s health behavior and providing interventions through digital platforms such as smartphones.

On Wednesday, Dartmouth Innovation Accelerator for Digital Health announced awards totaling \$175,000 to three projects it deemed promising. Fiellin’s company received the top prize of \$75,000.

“We’ve seen that you can get really big clinical effects with these types of tools, not only in helping people with changing self-defeating patterns of drug use, but also lots of mental health applications, helping depression and anxiety disorders,” said Lisa Marsch, the founding director of the Center for Technology and Behavioral Health at Dartmouth, an interdisciplinary research center and one of the partners behind the accelerator.



These images show different scenes in the PlaySmart video game, which is aimed at helping young people learn how to avoid addiction. PLAYSMART

A tool meant to provide reputable medical information to patients called Vox Cura also received a \$50,000 award from the accelerator, as did a tool to aid surgeons performing robotic surgeries called ENTerpoint.

Fiellin, who is a professor of biomedical data science at Geisel School of Medicine, said the award will go toward building a platform that education and health care institutions can use, allowing the company to offer their games more widely.

While opioid misuse among adolescents and young adults has been going down in recent years, opioid deaths in this group have been going up, according to a 2022 paper published in the [Journal of the American Medical Association](#). From 2020 to 2021, the rate of drug overdoses for teenagers between 14 and 18 jumped 94 percent.

And opioid misuse typically starts in mid- to late adolescence, according to a 2020 paper in the [same journal](#) — hence the efforts to target prevention to that age group.

While young people need accurate information, it's not enough on its own to stop them from experimenting with drugs, according to Fiellin, who said they also need the right skills to be able to act on that information.

“They need to learn evidence-based skills of how to negotiate and navigate through challenging, risky situations so that they can make the choices that are best for them while maintaining their social circle,” she said.

Enter the games.

Designed to look like a graphic novel, the games present players with a series of decisions unfolding like a choose-your-own-adventure novel. The player has to choose different strategies for responding when offered opioids, like using humor, making an excuse, acting shocked, or “getting mean.”

If a player makes bad choices, things go poorly for them.

“This isn’t what I wanted the future to look like,” a girl says in one scene, a dejected look on her face. “My hopes and dreams were derailed by opioid misuse. I made some choices that could have been avoided if I’d only known about the dangers of misusing opioids.”

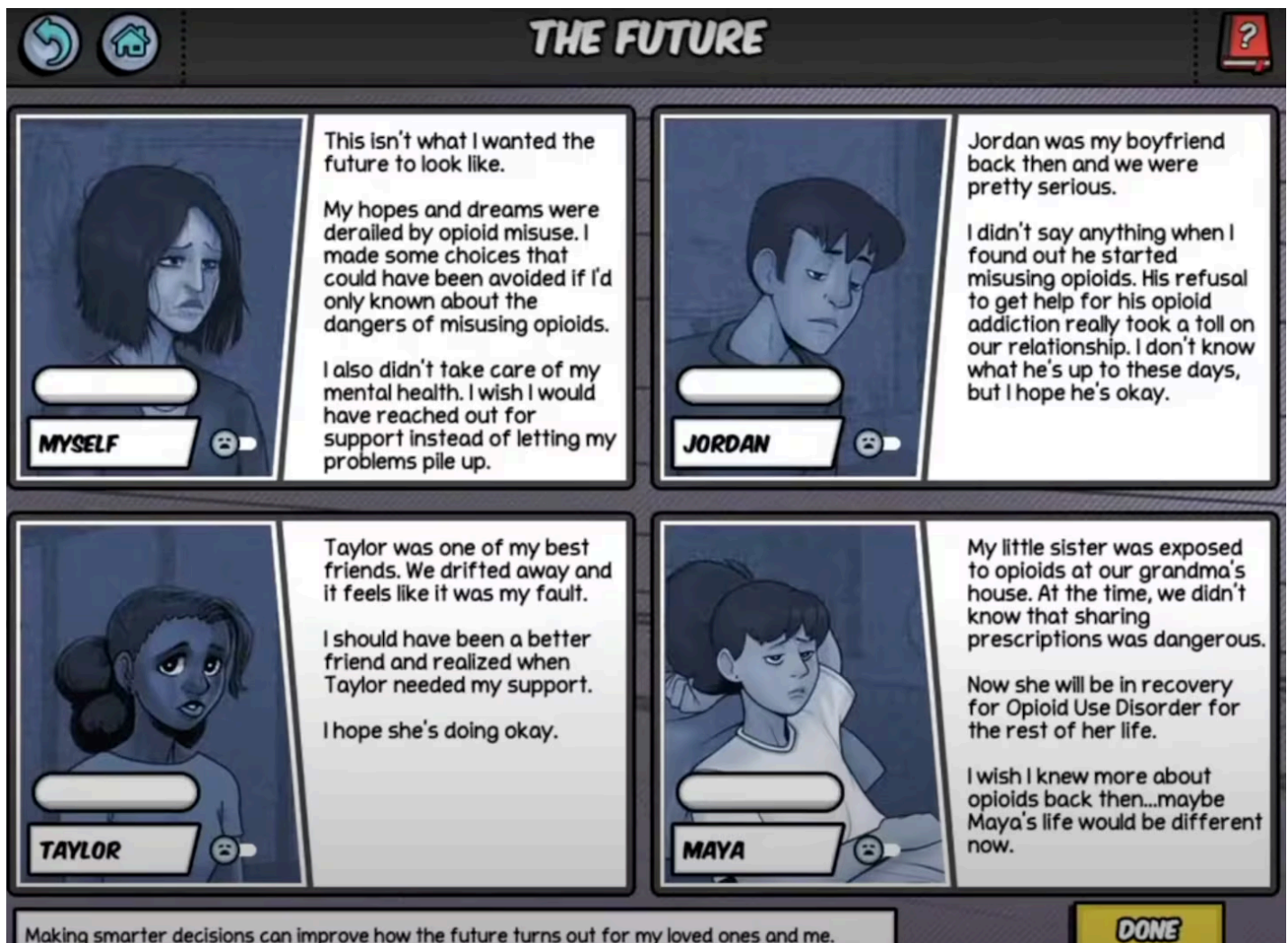
In another scene, a doctor explains the powerful impact opioids have on the brain and how they can cause dependencies. In the game, players can go back and fix their mistakes so they can learn about right and wrong decisions.

Marie Ward, superintendent of the Fairfield County Educational Service Center in Ohio, said the games play a pivotal role in the school’s prevention and diversion efforts, with vaping on the rise at school campuses. The games provide an alternative to punitive measures that would remove a student from school, she said.

“By engaging students in interactive, game-based learning about the dangers of vaping, Playbl games help students make better decisions, reducing the likelihood of disciplinary action and enabling them to stay in school,” she said.

“The games are very similar to life in terms of the choices that they have to make in real time in a real school setting,” said Nally Sahin, a middle school health teacher in New Haven, Conn.





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Sahin has been using the video game with her seventh- and eighth-graders to teach them how to say no if they're offered drugs or tobacco. She said it's effective because it models different ways to turn down drugs, where students can still preserve their relationships with their peers and, as Sahin calls it, their social health.

"They actually get to refine their refusal skills," she said, noting that vaping and edibles are among the biggest temptations for the students.

In [PlaySmart](#) for instance, a game aimed at preventing opioid misuse in 16- to 19-year-olds, the player can make an excuse ("Pass, I have to work in an hour."), or use humor ("I need to stay alert to own the dance floor.").

Sahin started turning to technology during the pandemic, but she said it remains a helpful tool even now that students are back in the classroom.

She uses the games to reinforce the lessons she presents during a weekly health class. The course lasts only one semester, and Sahin said there's simply not enough time in class for kids to learn the skills they need to make good decisions based on accurate information.

She said she has some mixed feelings about asking students to spend even more time on a screen playing the game, but she believes the benefit of the skills they learn outweighs the downside.

"I'd rather they learn the skills they can apply to whatever topic in life that comes their way," she said.

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