

# Online game could boost family fitness

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(HealthDay)—The family that plays an online game together may get more exercise together, a new study suggests.

Sound counterintuitive? Well, researchers have long struggled with finding ways to coax families to move more, but the online game—where the only prize was a lowly mug—convinced spouses, parents and kids to log more steps in their daily walking routines.

While all of the participants were white, and richer and healthier than most others their age in the United States, the study authors believe the approach holds plenty of potential.

Games are "a promising approach to improve daily [health](#) behaviors," said Dr. Mitesh Patel. He is an assistant professor of medicine and [health care management](#) at the University of Pennsylvania in Philadelphia. "But the design of the game is critical to its success."

More than half of adult Americans don't get enough exercise, according to Patel. There's evidence that connections with other people can help individuals exercise more, but "most exercise programs focus on the individual and don't harness these interactions from social networks."

Meanwhile, some game-style apps have tried to coax people to exercise, Patel said, but their design tends to assume "that people behave rationally and make decisions in line with their longer-term goals. However, we know that most people don't behave this way."

For the new study, the researchers sent step-tracking technology, such as a Fitbit, to the participants. The investigators also provided an app to family members enlisted in the study. One person in each family group was randomly chosen to be tracked each day, and the group gained points if that person met goals for steps.

"Everyone got five lifelines to use on days they were sick or couldn't achieve their goals for other reasons. This provided a sense of forgiveness," Patel said. At the end of 12 weeks, groups would receive

mugs if they met certain exercise goals. There were no other prizes.

Two hundred people from 94 family groups took part in the study. Overall, they were significantly different than the U.S. general population: 56 percent were female and their average age was 55. The group was active overall, exercising an average of about 7,500 steps a day before the study began; Patel said the average in the United States is closer to 5,000 steps.

Also, all participants were white, most had household incomes over \$100,000, and all were part of the Framingham Heart Study, a long-term study of health in a Massachusetts town. Few smoked or had heart disease or diabetes.

About half of the participants were assigned to play the game and get messages about their step goals, while the others only received the messages (the "control" group).

During the first 12 weeks, those who played the game boosted their average daily step count by an adjusted 1,661 steps, compared to 636 in the control group. Most continued for another 12 weeks, and there was still a gap between the two groups in regard to how much they boosted their daily average step counts compared to baseline: 1,385 extra steps in the [game](#) group versus 798 in the [control group](#).

The researchers didn't measure whether the health of those in the two groups improved. They also didn't analyze the cost of the program.

More research is under way and will be launched soon, Patel said. One goal is to better understand whether games could be used to help people lose weight and improve their health when they have conditions such as uncontrolled diabetes, Patel added.

In an accompanying commentary, researcher Dr. Ichiro Kawachi writes that "much remains to be learned about 'gamification'" —a term that refers to the use of games to encourage actions like buying a product or exercising more.

In virtual reality (including games like Pokemon Go that combine real and imaginary images), "the line between entertainment and public health is becoming progressively blurred," wrote Kawachi. He is chair of the department of social and behavioral sciences at the Harvard T.H. Chan School of Public Health in Boston.

According to Kawachi, there's an opportunity to use technology to make improving health an "engaging, fulfilling and fun activity."

The study was published online Oct. 2 in the journal *JAMA Internal Medicine*.

**More information:** Mitesh Patel, M.D., assistant professor, medicine and health care management, University of Pennsylvania, Philadelphia; Ichiro Kawachi, Ph.D., department of social and behavioral sciences, Harvard T.H. Chan School of Public Health, Boston; Oct. 2, 2017, *JAMA Internal Medicine*, online

For more about the benefits of exercise, visit the [U.S. Centers for Disease Control and Prevention](#).

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