

Playing to beat the blues: Video games viable treatment for depression

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Credit: Cristie Guevara/public domain

Video games and "brain training" applications are increasingly touted as an effective treatment for depression. A new UC Davis study carries it a step further, though, finding that when the video game users were messaged reminders, they played the game more often and in some cases increased the time spent playing.

"Through the use of carefully designed persuasive message prompts ... mental health video games can be perceived and used as a more viable and

less attrition-ridden treatment option," according to the study.

The paper, authored by Subuhi Khan and Jorge Pena, professors in the Department of Communication at UC Davis, is forthcoming in Computers in Human Behavior.

The messages, and subsequent games assigned, targeted depression that could be perceived as either internal—caused by a chemical imbalance or hereditary factor; or depression that could come from outside factors - such as a job or relationship situation. The messaging had slight differences in approach, but ended on basic inspirational notes to inspire the participant to play the game. Each message ended with: "Just like a regular workout, much of the benefit of these tasks comes from using them without taking breaks and putting in your best effort."

Using six, three-minute games, the study found in most cases that playing the specifically designed game helped subjects feel they had some control over their depression. Each game was an adaptation of neurophysiological training tasks that have been shown to improve cognitive control among people experiencing depression.

Portraying depression as something caused internally because of biological factors and providing a video game-based app for brain training made participants feel that they could do something to control their depression. This supports other research that shows that brain-training games have the potential to induce cognitive changes, the authors said. Those users also gave high ratings for the usability of the app.

On the other hand, portraying depression as a condition caused by external factors led users to spend more time playing the game - again, perhaps giving them a feeling of control over their situation. But researchers said this result was likely due to



immediate engagement and was unlikely to have long-term benefits.

The study did not examine whether playing the games actually reduced depression, although that will be looked at in future studies, the authors said.

The study looked at results from 160 student volunteers who said they suffered from mild depression. They received class credit for participating. Three-fourths were women, and more than half of the subjects were of Asian heritage, followed by white, Latino, and other ethnicities. The average age was 21.

More information: Subuhi Khan et al, Playing to beat the blues: Linguistic agency and message causality effects on use of mental health games application, *Computers in Human Behavior* (2017). DOI: 10.1016/j.chb.2017.02.024

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