Internet therapy apps reduce depression symptoms, study finds

December 7 2018

Credit: CC0 Public Domain

In a sweeping new study, Indiana University psychologists have found that a series of self-guided, internet-based therapy platforms effectively

reduce depression.

The work, which reviewed 21 pre-existing studies with a total of 4,781 participants, was published in the November issue of the *Journal of Medical Internet Research*. The study was led by Lorenzo Lorenzo-Luaces, a clinical professor in the IU Bloomington College of Arts and Sciences' Department of Psychological and Brain Sciences.

In the past several years, many internet-based apps and websites have made claims to treat depression. The subjects of the IU study were specifically those applications that provide treatment with cognitive behavioral therapy, a form of psychotherapy that focuses on changing thought patterns and behavior to alleviate symptoms of depression and other mental disorders.

Previous studies had examined the effectiveness of individual internet-based cognitive behavioral therapy apps, or iCBT, using a range of methods. Until this study, however, no review had examined whether the effects of these treatments were inflated by excluding patients with more severe depression or additional conditions such as anxiety or alcohol abuse.

"Before this study, I thought past studies were probably focused on people with very mild depression, those who did not have other mental health problems, and were at low risk for suicide," Lorenzo-Luaces said. "To my surprise, that was not the case. The science suggests that these apps and platforms can help a large number of people."

For Lorenzo-Luaces, internet-based cognitive behavioral therapy apps are an important new tool for addressing a major public health issue: that individuals with mental health disorders like depression far outnumber the mental health providers available to treat them.

"Close to one in four people meet the criteria for major depressive disorder," he said. "If you include people with minor depression or who have been depressed for a week or a month with a few symptoms, the number grows, exceeding the number of psychologists who can serve them."

People with depression are also expensive for the health care system, he added.

"They tend to visit primary-care physicians more often than others," Lorenzo-Luaces said. "They have more medical problems, and their depression sometimes gets in the way of their taking their medication for other medical problems."

By conducting a "meta-regression analysis" of 21 studies, Lorenzo-Luaces and collaborators decisively determined that internet-based therapy platforms effectively alleviate depression. A central question was determining whether previous studies distorted the strength of these systems' effects by excluding people with severe depression.

The conclusion was that the apps worked in cases of mild, moderate and severe depression.

Many of the studies in the analysis compared use of internet-based cognitive behavioral therapy apps to placement on a wait list for therapy or the use of a "fake app" that made weak recommendations to the user. In these cases, the iCBT apps worked significantly better.

"This is not to say that you should stop taking your medication and go to the nearest app store," added Lorenzo-Luaces, who said both face-to-face therapy and antidepressants may still prove to be more effective than the iCBT apps alone.

"People tend to do better when they have a little bit of guidance," he said. But he added that a 10- to 15-minute check-in may be sufficient for many people, freeing health care providers to see more patients.

App-based therapy also has an advantage in situations where access to face-to-face therapy is limited due to logistical barriers, such as long distances in rural areas or inflexible work schedules.

"ICBT apps take the methods we have learned and make them available to the many people who could benefit from them," Lorenzo-Luaces said. "It's an exciting development."

Provided by Indiana University