Weighing the pros and cons of mental-health apps

April 26 2016

"There's an app for that." The phrase is so ubiquitous it's a meme, and trademarked by Apple Inc.

In fact there are more than 165,000 mobile applications available for health care, with the largest category for people with mental-health disorders, managing everything from addiction to depression and schizophrenia.

Although in wide use, the efficacy of most of these programs—software designed for use with a mobile device—has not undergone rigorous scientific review, said Peter Yellowlees, a UC Davis professor of psychiatry and expert in using technology in clinical settings.

"While patients have access to an exponentially increasing number of apps, the research literature has not kept pace," Yellowlees said. "But this lack of data has not held back the high level of industry and consumer interest."

Only 14 apps for bipolar or major depressive disorder were examined in a recent literature review. And only seven apps had been reviewed for people with psychosis. Those studies found that there was little efficacy, safety or clinical outcome data in the published literature.

But that has not dampened demand.

The American Psychiatric Association is considering how to provide

guidance to psychiatric providers, while the U.S. Food and Drug Administration has stated that it will not approach the monumental task.

A commentary published in the *Journal of Clinical Psychiatry* identifies two options for psychiatrists to choose from when considering apps and other consumer devices for clinical care.

They can decide to not use apps and counsel their patients against using them, because of the limited evidence regarding their utility and efficacy.

But a more real-world approach would be to accept that patients already are using mobile psychiatry apps, and that they are here to stay.

Patients already are bringing apps, sleep-tracking devices and activity-monitoring devices to psychiatrists to ask for a professional opinion on their use, in the same way that many patients bring Internet resources and Google searches to physicians for second opinions.

The commentary recommends a framework that psychiatrists should consider when evaluating all "ASPECTS" of an app: whether the app is Actionable, Secure, Professional, Evidence-Based, Customizable and TranSparent.

"The framework presented here is important, as it offers a flexible tool that clinicians and patients can use together to make more informed decisions about whether to use or not use a smartphone app or other mobile health technology," said John Torous, commentary first author and clinical fellow in psychiatry at Beth Israel Deaconess Medical Center and the Harvard Medical School.

"While both patients and clinicians know the right questions to ask about a new medication or pill, sometimes they may not be aware of all the

best questions to ask about an app. With this framework we hope to guide them towards a more informed discussion," said Torous, who also chairs the American Psychiatry Association Workgroup on Smartphone App Evaluation.

ASPECTS:

- **Actionable** - To be actionable, an app should collect data, but it must be data that can be valuable and clinically useful. A psychiatrist should consider how app data will be incorporated into clinical decision-making and how the data will inform care. He noted that in the future, it will be increasingly valuable for some categories of apps to seamlessly integrate with electronic health records and complement clinical practices.
- **Secure**—Laws mandate that health information be secure, among them the Health Insurance Portability and Accountability Act (HIPAA). Psychiatrists should examine whether apps are password protected or biometrically authenticated. Patient data should be encrypted in case the mobile device is stolen or hacked.
- **Professional**—Apps should be in line with professional standards for clinical use, including legal and ethical standards. HIPAA is a federal law and in part requires strict protection and confidential handling of protected health information, and severe penalties for violation. Other laws protecting privacy may vary state to state.
- **Evidence-Based**—Apps with little or limited data may be risky to use. There are already documented cases in which apps designed for reduction in alcohol intake led to increased alcohol use.Caveat emptor—let the buyer beware.
- **Customizable**—One size does not fit all where apps are concerned. When considering an app for clinical use, psychiatrists should look for those that offer more customizable

and flexible features. Patients and clinicians are more likely to be invested in and adhere to something they created together.

- **TranSparent**—Apps should openly report how data is collected, stored, analyzed, used and shared. This is critical in selecting an app for clinical care. If there is uncertainty about how an app is using a patient's health care data, then there is uncertainty in any conclusions or recommendation that app may offer.

Patients will increasingly bring apps into the clinical visit with them, the authors said. Understanding the complexity of evaluating apps is important to allow physicians lead an informed discussion with patients regarding app use.

Provided by UC Davis