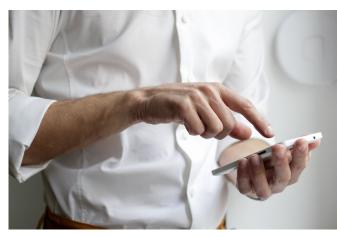# Researcher creates rating system for mobile health apps

31 August 2020, by Bev Betkowski

Credit: Unsplash/CC0 Public Domain

With more than 300,000 mobile health apps available, it's tough to know which ones are best, but a University of Alberta researcher has developed a way to help sort through the tangle.

The Alberta Rating Index for Apps (ARIA) is easy to use and offers more personalized, relevant ratings than other rating scales, said Peyman Azad Khaneghah, who created it as his Ph.D. thesis in the Faculty of Rehabilitation Medicine.

"Existing app quality rating scales are either too complex or don't include all relevant criteria," said Azad Khaneghah, an occupational therapist who is often asked by patients about the best apps to use.

He is currently working to get ARIA publicly accessible on a website for this fall so people may be able to use it to measure the quality of their health apps.

Used for everything from monitoring blood glucose and sleep patterns to providing health advice, mobile apps can be low-quality, not useful and even unsafe. They're also poorly regulated, he said.

"Unless an app claims it is for diagnosis or treatment, or can replace an already-approved medical device, it's not required to be approved by any regulatory body. The makers can say an app is not a replacement for professional health intervention, and this one line gets them off the hook so they don't have to be approved. We don't know which ones are good or bad."

Some apps have poor graphics, crash frequently, make anecdotal claims not backed by research or provide bad advice to users, he suggested.

Rating security

Azad Khaneghah created ARIA after studying several existing app rating scales and finding them lacking in several areas, includingprivacy and security.

"None of them measured the compliance of an app with required privacy policies or measured whether an app is actually secure or not," he said.

In response, ARIA, unlike other scales, addresses these issues and helps users look for certain signs that an app is compliant with minimum privacy and security standards, including what data will be collected by the app, who sees it and whom the data will be shared with.

"People should think about questions like, is the app password protected? Is the data collected or stored on the app encrypted?"

Azad Khaneghah developed nine criteria to rate app quality that also address other issues like usefulness, trustworthiness, affordability, ease of use, functionality and user satisfaction.

ARIA was then put to the test by a small group of adults with mental health conditions, occupational

therapists and seniors who used it to rate 11 mental health apps. The consistency of ratings within each group was found to be acceptable.

In an effort to make ARIA user-friendly, its questions were condensed into one easily viewed sheet, as opposed to other scales with questionnaires as long as five pages.

The users also tested one other rating scale, but found ARIA worked better, he said.

"It's been designed for use by the general public, for the average user."

The ARIA website, once live, would also offer recommendations "so people can make an informed decision," said Azad Khaneghah.

The website would also be updated on the quality of its criteria as technology changes, and Azad Khaneghah hopes app developers find the information useful.

"The message is that if you're going to make an app, make sure it meets these criteria and hopefully, in the long term, it will impact health-care policy makers in approving apps."

Provided by University of Alberta