

Don't rely on smartphone apps to treat back pain

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University of Sydney researchers have found that smartphone apps for treating back pain have questionable value as they are generally of poor quality, and have not been rigorously evaluated.

Published in *Best Practice & Research: Clinical Rheumatology*, the study found there has not been thorough evaluation of apps for the self-management of back pain and there is no guidance for consumers on how to select high-quality, evidence-based apps.

Low back pain is a major global [public health](#) issue and the leading cause of disability in most countries. Back pain affects 4 million people in Australia, costing the healthcare system \$4.8 billion each year.

The study reviewed 61 current apps specifically designed to help consumers self-manage their back pain and evaluated their content, functionality, quality, and whether they recommend evidence-based interventions. The researchers found more than 700 apps in the Australian iTunes and Google Play stores that use the keyword "back pain".

"Treatment guidelines often recommend self-management for the symptoms of back pain, and [mobile apps](#) can represent a useful and convenient way to help people manage their own condition, however, consumers need to be aware that there is minimal regulatory control over their content," said lead researcher Gustavo Machado from the University's School of Public Health.

"Millions of people worldwide use these apps, however here is no independent guidance to help consumers identify which ones are safe and of high quality.

"In this study, apps generally offered questionable and poor quality information, lacked engaging and customisable features, and had poor visual appeal and questionable credibility."

Although the recommendations in most apps were broadly aligned with the 2016 National Institute for Health and Care Excellence (NICE)

[treatment guidelines](#) such as strengthening exercises and yoga, the quality of the information provided was generally low.

"Developers usually claim that [consumers](#) could rapidly improve their back pain symptoms by following their exercise programs. However, none of the apps have been directly tested for their effectiveness, and only very few provide the educational content and information that is key to guideline recommendations," Gustavo Machado said.

"Considering none of the apps included in this study had been evaluated rigorously, it is not clear whether any of them are really effective in improving symptoms in people with back pain.

"Consumers often rely on in-app or online user ratings and reviews to select an app, but our study found that this information was not associated with app quality. In general, the apps that required some payment were also the ones with the highest quality scores."

Senior author Associate Professor Steven Kamper from Sydney Medical School said: "App developers need to work closely with healthcare professionals, researchers, and patients to ensure app content is accurate, evidence based, and engaging to improve the quality of existing apps for low back pain."

"They also need to devise ways to appropriately evaluate these emerging technologies to ensure that they are beneficial to patients," he said.

The study:

- All [smartphone apps](#) available in the Australian Google Play and iTunes stores relevant to self-management of back [pain](#) were collected and assessed.
- The 2016 National Institute for Health and Care Excellence

(NICE) guidelines were used to identify whether interventions recommended by apps were evidence-based.

- Apps that recommended evidence-based interventions were rated for quality by using the Mobile Application Rating Scale (MARS).

Provided by University of Sydney

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