Mobile Apps for COVID 19: First Results of a Systematic Review of Reviews

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Background: Over the past two years, severe acute respiratory syndrome coronavirus type 2 (SARS-CoV-2) has caused a global pandemic. In other endemic situations, mobile applications (apps) have been used successfully. [1]

Objective: This study aims to identify and review published reviews of mobile apps used in association with the coronavirus disease 19 (COVID 19).

Methods: We conducted a systematic review of reviews following the PRISMA statement from 2020.[2] We searched Medline and Embase for peer-reviewed reviews of COVID-19 mobile apps published between 01/01/2020 and 04/25/2022. Review quality was assessed by modified versions of the overview quality assessment questionnaire (OQAQ) and a measurement tool to assess systematic reviews, AMSTAR version 2.[3], [4] Reviews were categorically synthesized.

Results: Out of the initial 17,611 studies, 24 studies were eligible for the analysis. Publication dates ranged from May 2020 to January 2022. 54% (n=13) of the studies were published in 2021, 33% (n=8) in 2020, and three were published in 2022. Most reviews analyzed apps from the USA, the UK, and India. Apps from most of the African, Middle- and South American countries were not analyzed in the reviews. Categorization, based on similarity, resulted in four clusters (app overview, privacy and security, MARS rating and miscellaneous). Nine reviews provided an overview of currently available apps for COVID 19, six studies reviewed apps

regarding privacy and security, and five studies rated apps using the Mobile Application Rating Scale (MARS). Four reviews did not fit into any of the other categories, of which two analyzed studies on the effectiveness of COVID 19 mobile apps, one evaluated the usability of COVID 19 mobile apps, and one identified challenges in app adoption in neo-liberal societies.

Discussion: Our study provides a comprehensive high-level overview of 24 reviews of apps for COVID 19 during the first two years of the pandemic. Reviews on apps from African, Middle- and South American countries are required as current literature focuses on European and North American apps. Apps were mostly developed with governmental backgrounds which were reflected by consistently high quality according to MARS. Rigorous studies are needed to provide evidence of their effectiveness.

References

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