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NTU researchers reveal inconsistency in eczema apps management

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Information in a third of eczema apps inconsistent with international guidelines



A third (34 per cent) of eczema management mobile applications provide information that does not agree with international treatment and condition guidelines, a study led by Nanyang Technological University, Singapore (NTU Singapore) has found.

While many of the apps studied came with features such as information on the available therapies and a disease tracking function, a team led by **Associate Professor Josip Car** from the Lee Kong Chian School of Medicine (LKCMedicine) at NTU Singapore found a huge variation in the quality of apps available worldwide.

None of them fulfilled the complete set of criteria for educational information, tracking functions or health information principles, as set out by international eczema management recommendations such as the Guidelines for the Management of Atopic Dermatitis in Singapore and the UK's National Institute for Health and Care Excellence guidelines.

In this study, the NTU-led team assessed 98 apps for eczema management – 67 in English, 22 in Chinese, and 9 in Spanish. The researchers evaluated these apps using international eczema guidelines from Singapore, UK, US, Argentina and China to assess eczema educational information, eczema-specific tracking functions, and compliance with health information principles.

Of the apps assessed, 84 per cent provided educational information, 39 per cent tracking functions, and 13 per cent both. Among 38 apps with a tracking function, 82 per cent measured specific symptoms, disease severity or current skin condition and 89 per cent helped users to record medication usage including application of topical treatments. 34 per cent recorded environmental or dietary allergens.

In addition to the 34 per cent of apps providing information that was not in agreement with international guidelines, only 15 per cent provided information supported by international guidelines on pharmacological therapies and 16 per cent on non-pharmacological therapies. None of the included apps complied with all criteria for educational information, tracking functions or health information principles. 11 per cent of the apps failed to mention mainstay therapies such as the use of emollients and moisturisers.

Assoc Prof Car, who is also Director of the Centre for Population Health Sciences at NTU, said, "Perhaps the most useful way to address this issue would be to publish a list of recommended apps to aid clinicians in suggesting the appropriate options for eczema patients and caregivers."

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