Healthy thanks to an app?

Looking at the infection risk in the "Corona-Warn-App", checking the toxicity of plants using a photo or meeting a GP in their virtual surgery: many people use smartphones, tablets or other mobile devices for their health. An article on the advantages and disadvantages of mobile technologies for consumer health protection.

A guest article by **Professor Dr. Constanze Rossmann** (right) and **Dr. Paula Stehr** (bottom left) from the University of Erfurt and Professor **Dr. Doreen Reifegerste** (bottom right) from Bielefeld University.

Portraits: © Universität Erfurt

Mobile information and communication technologies, such as smartphones, have become our constant companion. This opens up many possibilities to use them for healthcare, health promotion and consumer protection, also understood as mobile health or – in short – mHealth. mHealth is used in various domains: from prevention and health promotion, supporting diagnostics, communication, and training through to (remote-controlled) monitoring of health parameters and medication intake. Mobile everyday assistants can, for instance, provide very specific support for daily yoga practice, monitoring blood sugar levels, and even in searching for a suitable hospital. Currently, mHealth also plays an important role in the context of infection contact tracing.

Limitations of the technologies

Mobile health has its advantages and disadvantages. One disadvantage under discussion is that certain target groups can only be reached to a limited extent because they don't use mobile media very often. Furthermore, the quality of the applications varies and not all users have the necessary health and media competence to recognise applications that are of minor quality. Another much-discussed problem is data privacy, which again became evident in the context of the coronavirus tracing app. Last but not least, the effects found so far are frequently difficult to generalise. The findings mostly come from short-term experimental studies with small samples. Therefore, transferability to the everyday use of different users is limited – particularly because too little is known about how mHealth technologies are used in everyday life in the long term.

Mobile everyday support

Nonetheless, impact studies point to the potential of mHealth in healthcare and health promotion as well as in consumer protection. Target groups can be reached independent of time and place, in a cost-effective and repeated manner, and can be addressed directly and individually. Examples include daily personal messages that are tailored to individual values. For example, a diabetes patient can receive a message advising her to check her blood glucose levels more closely and maybe even contact her GP, while another user receives suggestions for physical activity. At the same time, users can access digital health information in a straightforward way, anytime and anywhere, for example, to find information on consumer protection issues. The use of a camera, scanning function, GPS or external measuring devices also allows comprehensive monitoring. This potential has led to the costs for certain apps now being covered by statutory health insurance providers. ◼

More information:
www.uni-erfurt.de > Faculty of Philosophy > Media and Communication Science > Social Communication > Research Projects
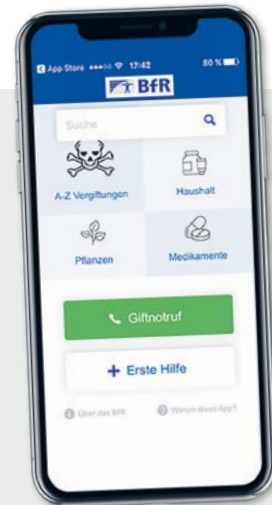
© BfR

In focus: BfR app "Poisoning accidents among children"

It is beneficial, especially in critical situations, to have a smartphone at the ready – even on the go. The BfR has developed the "Poisoning accidents among children" app, which provides information about poisoning accidents and on how to properly react in an emergency. For the app to be effective, it is necessary to adapt it to the target group's prior knowledge, needs and conditions of use. The University of Erfurt, in cooperation with the BfR, is investigating how caregivers gather information about preventing accidents involving children and what role mobile media plays in this, as part of the project "Mobile Health in Consumer Health Protection (MogeV)". The first results indicate that caregivers are not very familiar with apps concerning accidents involving children, but that they are considered suitable when it comes to gathering information about accidents in everyday life or in critical situations themselves. Apps are perceived as particularly useful when they quickly provide compact and clear information, visualised through images or videos, and personalised according to the age of the children. The use of a smartphone camera is perceived as helpful to scan potentially toxic plants, mushrooms as well as cleaning product barcodes. The unassisted realisation of the emergency measures described in many apps usually proves inadequate, which is why integrated emergency calls play a crucial role. Last but not least, it is important to caregivers that information comes from trustworthy institutions, such as health insurance providers, non-profit organisations or government agencies, such as the BfR. The first data from the MogeV project will now be validated in an online survey with 1,000 parents. The results should be available in spring 2022.

MogeV project contact:
Dr. Paula Stehr, University of Erfurt
paula.stehr@uni-erfurt.de