

M-Health Apps and Self-quantification Technologies on the rise. Opportunities and Risks for the use in practice

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Introduction: M-Health Apps and self-quantification technologies are on the rise in society. Reasons for this trend is the availability of smart phones with integrated sensors, the humans affinity towards figures and charts and elements of games (gamification) that motivate the user to involve him/herself and to pursuit certain desired behaviours. Risks and opportunities for users as well as therapists however are unclear.

Objectives: The goal of this study was to get an overview of the current state and future trends in m-health apps and self-quantification technologies, to assess opportunities and risks for their use and to make recommendations for users and therapists in practice.

Method: A literature review, 19 expert-interviews and 3 focus groups with users (healthy and with chronic conditions) and health-professionals (occupational and physical therapists, physician, nurses) were conducted. A workshop was held to evaluate opportunities and risks and to make recommendations for different stakeholders.

Results: The literature showed that this trend has its roots in the treatment of people with chronic conditions where it is most widely used. While healthy users emphasise the motivational character of such tools, people with chronic conditions are more cautious as they are concerned about data security. Health-professionals are also concerned with data protection and have concerns about validity and reliability of the tools. However, they believe that in the future this technology may help most in prevention, diagnostics and rehabilitation.

Conclusions: M-Health Apps and Self-quantification technologies have great potential in health-care however prudent use is needed to minimize risks.