A medical app to teenagers with type 1 diabetes: The development of a decision aid tool

Anne Møller

L Ledderer¹, A Møller¹, A Fage-Butler²

¹Department of Public Health, Aarhus University, Aarhus, Denmark

²Department of English, Aarhus University, Aarhus, Denmark

Contact: anmo@ph.au.dk

Background:

Mobile health (mHealth) technologies, such as apps, are increasingly promoted as a means of supporting users in health-related decision-making. These technologies influence the ways in which people engage in their health. The aim of this paper is to explore how a medical app 'Diapplo' affected teenagers' decision-making regarding diabetes management, with a specific focus on the processes involved in developing the app.

Methods:

A qualitative in-depth case study of the development and use of a medical app was conducted at two outpatient clinics in Denmark from October 2016 to December 2017. The app was developed using a participatory design approach, where users, health professionals and IT designers collaborated to develop an app to help teenagers with type 1 diabetes manage the disease in their daily lives and facilitate contact with health professionals. The app was tested by users and health professionals at two outpatient clinics. Data were generated during the developmental and test phases and comprise transcripts from meetings and workshops, interviews with the teenagers, observations, and material developed for inclusion in the app. The data were analysed using qualitative content analysis.

Results:

Analysis indicates that the teenagers' needs were not fully understood or met in the app. The teenagers rarely used the app to seek medical information to support decision-making; they would have preferred that there was a private space in the app to chat with other diabetics. Interacting with peers about everyday life situations without focusing on their disease was also considered a priority.

Conclusions:

Inspired by the theory of shared decision-making and patient engagement, we discuss the implications of our findings for developing a medical app to involve teenagers with a chronic disease in making health-related decisions.

Key messages:

- Scoping of users' needs is required at initial stages and throughout the process of health app development.
- Research is needed to understand how health apps can support teenagers with chronic diseases.