



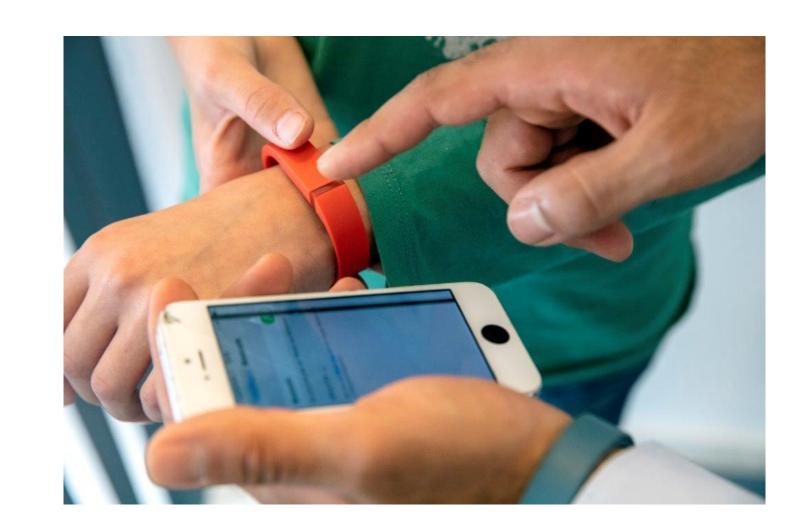
Experiences of lifestyle-professionals and their chronically ill clients with apps and wearables for improving lifestyle

Joan Dallinga^{1,2}, Laurence Alpay¹, Harmen Bijwaard^{1,3} and Marije Deutekom^{1,2}

- ¹ Faculty of Health, Sports and Social Work, Inholland University of Applied Sciences, Haarlem, The Netherlands
- ² School of Sports and Nutrition, Amsterdam University of Applied Sciences, Amsterdam, The Netherlands
- ³ National Institute for Public Health and the Environment (RIVM), Bilthoven, The Netherlands

Background

EHealth apps and wearables can be useful tools to help lifestyle-professionals in their work. They can support their clients' self-management activities for a healthy lifestyle¹. The aim of this explorative study was to gather experiences and identify barriers and facilitators for using these technologies.



Methods

Data were collected via semi-structured interviews with:

- lifestyle-professionals (n=10);
- clients with diabetes (n=8);
- clients with heart rhythm disorders (n=8).

Interview topics:

- goal and motivation of app use and wearables;
- experiences;
- barriers and facilitators.

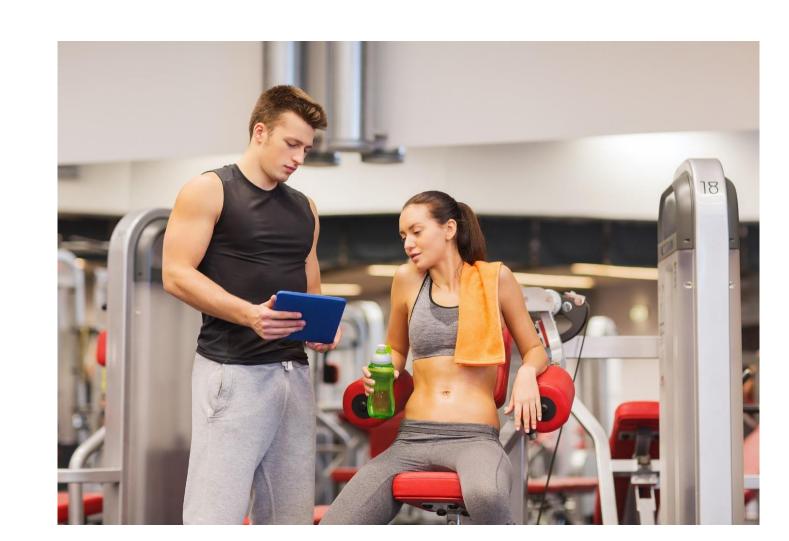
Results lifestyle-professionals

For the professionals the use of apps to support their clients was relatively new. They used Virtuagym, MyWellness, Myfitnesspal and the 'Eetmeter' app amongs others. Reasons for using apps were to increase their clients' knowledge and motivation and to provide self-management support.

"I notice that my clients have more knowledge about how they should train and eat to reach their goals. My clients are getting more handy in using different apps. There are enough apps available that provide a lot of information to the user."

Overall, the professionals were positive about the ease-of-use. Barriers included:

- concerns about how clients will use it;
- a lack of a social platform to provide real-time feedback;
- the limited use of the apps.



"I think that the use of apps by clients can negatively influence the support in general. It is a good thing that people are using it, but particularly for beginners it is important to start with using our expertise as professional. Apps are currently limited in their functions and do not inform the client completely."

Results clients

All diabetes clients used an app. They mostly used sport or nutrition apps (n=5, 63%). Important features:

- overview of food intake or activity;
- information about nutrition.

"You can immediately view on the start screen what your blood values were in the last 24 hours and you can weekly or monthly see what you have been eating and what your values were."

Some clients with a heart rhythm disorder used a heart rate or step counter app/activity tracker (n=5, 63%). They would use an app for reassurance, gaining self-confidence and for limiting symptoms of arrhythmia.

"...It could work as a reassurance to some extent, in the sense that you can quantify what happens to your body, e.g. heart rate or blood pressure. (...) In such a month you are mainly focusing on 'do I feel okay?', which is very subjective. If you can assess that a bit in numbers, than you can hold on to that."

Both groups of clients did not often use an app or wearable specifically for their condition. However, they saw the potential.

Conclusion

Professionals and clients see the potential of apps and wearables in supporting an active lifestyle. However, they are not yet widely used due to barriers such as limitations of current apps and concerns about the use by clients. Future research ideas:

- Gain more insight into the factors that explain the acceptance and use of these technologies for both professionals and clients.
- Finding out how professionals can be supported in using apps and wearables.

Correspondence

Joan.dallinga@inholland.nl, Dr. Joan Dallinga, School of Health, Sports and Social work, Inholland University of Applied Sciences, Bijdorplaan 15, 2015 CE, Haarlem, Netherlands

¹ Alpay L, van der Boog P, Dumaij A. An empowerment-based approach to developing innovative e-health tools for self-management. Health Informatics J. 2011;17(4):247-255.