Behavior Change: Primary Health Support in Oulu, Finland

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Introduction

My research focuses on designing technology for supporting health behavior change through social influence. To understand how the primary health care system, patients, and healthcare professionals (HPs) implement social influence, I interviewed 6 Finnish HPs working with behavior change e.g. weight loss, smoking cessation, and improvement of physical condition.

Infrastructures: medicine & technology

HPs - in Finnish primary care – keep electronic records of their patients. However, this may often be challenging due to the systems' design, e.g., the HPs who hold individual meetings on weight loss used the system to input the patient's data but the ones working with group therapies often did not. The two systems were different and the individual meetings were planned to give HPs time to record the data after the session that was not the case in the group sessions.

In Finland, many people use technology to track their habits. However, this technology stays often out of the HP's office. A reason could be that most commercial wellbeing technology may considered unreliable as HPs have limited participation in their design [1,2,4] or the technology lack the label "medical device". Nevertheless, the interviews showed that it is up to the HP and the patient to use commercial technology.

Finally, the healthcare in Finland is public but private clinics also exist. A common obstacle in both sectors is time and budget limitations. For behavior change, the patients need many cessions before they can continue without support. The public sector rarely covers the visits and the private sector can be costly and hence demotivate the patient. The public sector has long waiting times, if the patient lacks an acute situation e.g. needs to lose weight for a surgery. That can also be a demotivating factor for the patient. Recently a virtual hospital was created to support primary care [5]

Actors: Patients & HP

All HPs personalized their services to each patient. One healthcare professional accepted to use commercial health technology after requested by the patient. This helped the professional follow the patient's progress even afterhours and give more personalized advices.

The HPs rarely mentioned problems with technology officially used. They focused on techniques, leaving up to the patient to decide how to implement them, e.g., keeping a diary is a common technique for weight loss; the patients could use an app to keep the diary.

Behavior change is a difficult and long process; many times the patients relapse. HPs recognize the patients' need to have support during their weak moments. Both for smoking cessation and healthy nutrition the HP could offer support in weak moments but it is impossible to be next to the patients 24/7. This was one of HPs' wishes for technology to cover [3].

Society: family & community

All HPs mentioned social influence in various forms e.g. comparison, support, social learning. The nutritionists underlined the support at home e.g. if the person on diet is not the one who cooks then the one who cooks should take into account the needs of the one on diet. HPs also mentioned, the social learning, patients could exchange techniques that worked for them e.g. how they handled cravings, or offer support e.g. connect out of the official group cession to exercise together.

Two HPs expressed that it is easier to convince a patient to quit smoking than to lose weight due to the strict legislation about smoking, it made smokers feel that they must change. Legislation and public awareness plays a big role on HPs' work but also on how patients find support for different behaviors they wish change.

References

[1] Giunti, G., Guisado-Fernandez, E., and Caulfield, B. Connected Health in Multiple Sclerosis: A Mobile Applications Review. *2017 IEEE 30th International Symposium on Computer-Based Medical Systems (CBMS)*, IEEE (2017), 660–665.

[2] Hamilton, A.D. and Brady, R.R.W. Medical professional involvement in smartphone "apps" in dermatology. *British Journal of Dermatology 167*, 1 (2012), 220–221.

[3] Mylonopoulou, V. Design for Health Behavior Change Supportive Technology: Healthcare Professionals' Perspective. *Proceedings of the 10th Nordic Conference on Human-Computer Interaction*, ACM (2018), 82–92.

[4] Wong, S.J., Robertson, G.A., Connor, K.L., Brady, R.R., and Wood, A.M. Smartphone apps for orthopaedic sports medicine – a smart move? *BMC Sports Science, Medicine and Rehabilitation 7*, 1 (2015), 23.

[5] Virtual hospitals. https://www.terveyskyla.fi/tietoa-terveyskylästä/virtuaalisairaala-2-0-hanke/the-virtual-hospital-2-0.