Introduction to Health Behavior Change Support Systems

Khin Than Win  
University of Wollongong  
Australia  
win@uow.edu.au

Sriram Iyengar  
Texas A & M Health Science Center  
iyengar@medicine.tamhsc.edu

Harri Oinas-Kukkonen  
University of Oulu  
Finland  
harri.oinas-kukkonen@oulu.fi

Recent years have seen many advances in behavior change support systems and persuasive technology. Theoretical perspectives on health behavior change support systems perspectives [1], application of persuasive technology in healthcare [2,3] and effectiveness of HBCSS in healthcare have been presented in many studies [4,5]. Providing personalized medicine to consumers through providing personalized healthcare has been a focal interest in healthcare industry nowadays.

Three selected studies included personalized health behavior change, social comparison in behavior change and the cognitive work analysis and health behavior change.

Nguyen et al. [6] presented their innovative approach in smartphone sleep app. The study proposes the personalized behavior change support system for sleep deprived college students. The app provided personalized feedback to users based on the individual’s personality and the chronotype. This study demonstrates that personalized feedback could be obtained through persuasive technology to enhance healthy sleep behavior [6].

Mylonopoulou et al. [7] presented different social comparison features that can be applied for health behavior change. By reviewing and analyzing twelve difference studies, the authors presented how social comparison feature is designed in IT artefacts. Based on the literature, six design dimensions of social comparison feature is presented in the paper [7].

Presenting blood pressure management as an example, Burns et al. [8] presented how cognitive work analysis can be complementary to persuasive design for designing behavior change support systems. The study discussed how cognitive work analysis and the persuasive systems design to be used together.

References