

DESIGN AND PRELIMINARY EVALUATION OF A MOBILE APPLICATION FOR OBESITY EXPERT AND CHILDREN TEAMS

Gobias Kowatsch¹, Dirk BUCHTER², Irena Pletikosa³, Runhua Xu³, Björn Brogle², Anneco Dintheer², Dunja Wiegand², Dagmar l'Allemand² & Wolfgang Maass¹, University and ²Ostschweizer Kinderspital of St. Gallen, ³ETH Zurich. dag-nar.lallemand@kispisg.ch

Childhood obesity is one of the major disease patterns of the twenty-first century. Due to the need for multi-professional therapies requiring intensive personnel and financial resources, IT-supported interventions promise help. Meta analyses, however, show their limited impact on health outcomes up till now.

The current work aims therefore to design and evaluate a mobile application that increases the cooperation between obesity experts and children. For that purpose our IT experts, five therapists, nine obese children 10 to 14 years old and their parents adopted a structured design-science methodology. Perceived characteristics of the application and direct effects on cooperation of therapists and children were evaluated.

The resulting application provides recipe recommendations based on ingredients available at home and desired by children. It further allows to document groceries and meals via a photo functionality. All interactions with the application were recorded to document screen time and utilization for efficient shopping and healthy meals.

First feedback from seven therapists, six children and their parents indicates that the application is perceived useful, easy and fun to use. With regard to direct effects on the cooperation between obesity expert and children teams, there is evidence that the application supports shared understanding and cross understanding.

Future work will incorporate further components of therapy programs, such as physical activity or relaxation, but will also investigate in a longitudinal field

study how the use of this application within a therapy program influences health condition of obese children.