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«Machtfaktor Patient 3.0» – Patienten verändern das Gesicht des Gesundheitswesens

"The power of patients 3.0" – Patients are changing the face of health care

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Empowerment of diabetes patients based on individual needs and skills

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**Teaser:** This paper presents a new model for assessing individual diabetes self-management proficiency enhanced by ICTs (EMPOWER maturity levels). This model can serve other health projects and initiatives in developing individualized empowerment strategies and services.

**Background, objective:** For many diabetes patients it is a huge challenge to be compliant to all their treatment goals. Typically, they not only comprise medication, but also nutrition, physical exercises and a daily self-control of vital signs with a deep impact into the patients' daily lives and their behaviour patterns. Hence, behaviour changes are a necessity and a big challenge to them. This contribution presents the multi-dimensional approach used in the European research project EMPOWER, which develops a web based self-management portal for diabetes patients specifically respecting their personal and individual skills and preferences (EMPOWER Support of Patient Empowerment by an intelligent self-management pathway for patients: <http://www.empowerfp7.eu/>).

**Approach, methods, patient engagement:** The conceptual starting point was the Access-Competence-Motivation model (ACM) explaining different learning paths in adopting a new eHealth solution. Based on an explorative survey about IT-enhanced diabetes self-management in Austria and in Germany, a new model for individual maturity levels in using EMPOWER solution was developed. The purpose of the questionnaire-based survey was to find out if, and how in practice, diabetes patients cluster to their different characteristics and needs: diabetes types, age, gender, media type access, e-skills, diabetes self-management/health literacy and coping strategy (n=66; 46% female, 54% male respondents; mean age average 48,4; m.a. of diagnosis 10,9 years).

**Findings:** The results have led to a clearer understanding of how to cluster potential EMPOWER users as to their stage of diabetes self-management learning processes and competences supported by an ICT-solution. The EMPOWER maturity levels are described as a nine-dimensional matrix covering a spectrum from low to high, for each pillar of the ACM model (access, competence and motivation). The maturity levels in EMPOWER refer to the professional stage having reached by the patient in learning of how to manage his/her diabetes by him/herself (novice, advanced, expert). Based on these results, paper-based prototypes were specified in order to illustrate how different maturity levels can be addressed and realized in the EMPOWER software solution.

**Discussion and implications:** The survey made clear that for any IT-supported empowerment service, it is very essential to respect individual patient needs and skills. The EMPOWER model is useful to target individual proficiency levels in diabetes self-management.

**Key terms:** Individual empowerment proficiency, ICT, maturity levels