

Support of Patient Empowerment by an intelligent self-management pathway for patients

EMPOWER supports the self-management of diabetes patients through a modular and standards-based Patient Empowerment Framework. It helps sufferers of diabetes with observing daily patterns of living and with managing personalised action plans.

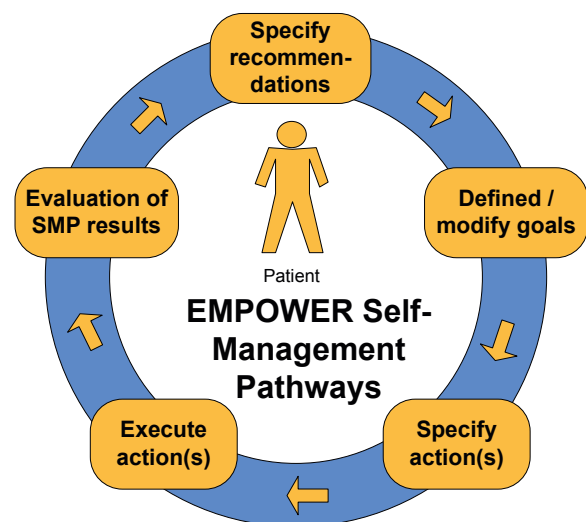
Looking at the current challenges in healthcare (e.g. increasing age of the population, increasing costs, demands for new treatment) it becomes clear that most healthcare systems must evolve from the doctor-centric production system of today to a more holistic, integrated person-centred system of the future. We must realise that we ourselves, are our own primary healthcare provider. Self-management of Diabetes patients not only contributes to their own healthcare but also enables them to be more in control of their disease. Patient empowerment is seen as an essential aspect of patient-centric care and identified as a main element of change for improved quality and safety in healthcare.

EMPOWER addresses the following challenges:

- **Adaptive and secure patient pathways**
The patient's self-management competences and preferences are adapted and improved iteratively.
- **Supporting behaviour changes**
Patients can develop personalised action plans which include recommendations from the treating physicians and patients' preferences
- **Collecting observations of daily living**
EMPOWER will help to collect data on vital, physical and mental parameters, concerning physical and lifestyle activities and medication compliance
- **Semantic interoperability with existing Personal Health Applications**
The EMPOWER system will be based on established interoperability standards, aiming at integration with existing Personal Health solutions.

Project Description

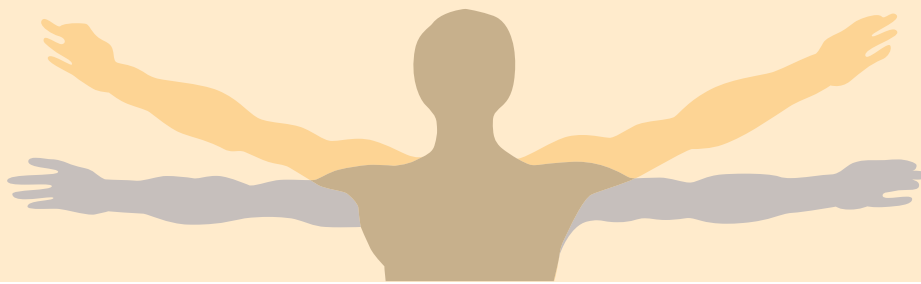
Patient empowerment involves patients to a greater extent in their own healthcare process so that disease management becomes an integrated part of their daily life.



EMPOWER will develop a modular and standards-based Patient Empowerment Framework which facilitates the self-management of diabetes patients based on Personal Health Records (PHR) and on context-aware, personalised services. EMPOWER focuses on a patient-centric perspective that also involves healthcare professionals.

PILOT APPLICATION

EMPOWER will model patient self-management pathways by supporting both the patient-physician communication and the tasks which support the patients in their daily life. The self-management workflow will be evaluated by two pilot applications for diabetes patients in two countries (Germany, Turkey) with their different national settings. Each pilot application will cover several scenarios, e.g. supporting young people with diabetes Type 1 or supporting elderly people with diabetes Type 2.



EMPOWER semantically integrates multiple information sources (patient records, diabetes guidelines, patterns of daily living) for a shared knowledge model. The Self-Management Pathways facilitate the specification of recommendations that allow specifying individual goals for the patient. Based on these goals, relevant information and their preferences patients can specify their individual diabetes-specific actions. The Self-Management Pathways are an iterative process where executed actions and reported patterns of daily life can be evaluated. Recommendations, goals and actions can be updated iteratively according to current needs and preferences. Finally, the services in EMPOWER will embrace semantic interoperability based on health standards such as HL7 and IHE profiles in order to interoperate with existing health applications.

Expected Results & Impact

From a socio-economic point of view EMPOWER will enhance the quality of life for diabetes patients by a more effective self-management of diabetes and contribute to a reduction of the severity and therefore the cost of diabetes in Europe. Fostering self-management provides economic benefits such as reduced necessary diabetes care, fewer cases of co-morbidity (e.g. heart attack) and reduced hospitalisation. EMPOWER supports the decision making process by deriving individual recommendations from diabetes guidelines, relevant information material, from the patient's history and results and hence, reduces the workload of treating physicians in diabetes care by suggesting patient-specific recommendations.

EMPOWER addresses long-term goals and short-term activities in order to facilitate the self-management of patients with diabetes and thus the treatment of chronic diseases. The pilot applications in Germany and Turkey will demonstrate that the holistic and patient-centric approach of EMPOWER can improve disease management by personalised self-management services helping diabetes patients to cope better with their condition.



EMPOWER

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- Università della Svizzera italiana (Switzerland)
- Software Research and Development and Consultancy Ltd. (Turkey)
- Intracom Telecom (Greece)
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KEYWORDS

Patient Empowerment, Self Management, Personalised Health, Semantic Interoperability