



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

Pre-Study:
Empowering Patients for Self-Management

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1. Rationale

Diabetes Mellitus

- | is one of the most common non-communicable diseases worldwide
- | 4th or 5th leading cause of death in most high-income countries
- | caused **4.6 millions** deaths in 2011
- | **366 million** people have diabetes (2011)
- | By 2030 the number will have reached **552 million**





2. EMPOWER

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

Project Identifier: FP7-ICT-2011-288209

Project Type: Small or medium-scale focused research project (STREP)

Project Budget: 4,28 Million Euro

EC Contribution: 3,02 Million Euro

Funded By: EU 7th Framework Programme, Theme ICT

Start Date: 2012-02-01

End Date: 2015-01-31

Duration: 36 months

Partners: 7 (2 research institutes, 1 university, 3 companies, 1 public body)

Nations involved: Austria, Germany, Greece, Switzerland, Turkey

Website: <http://www.empower-fp7.eu/>

2. EMPOWER

2.1 Objectives

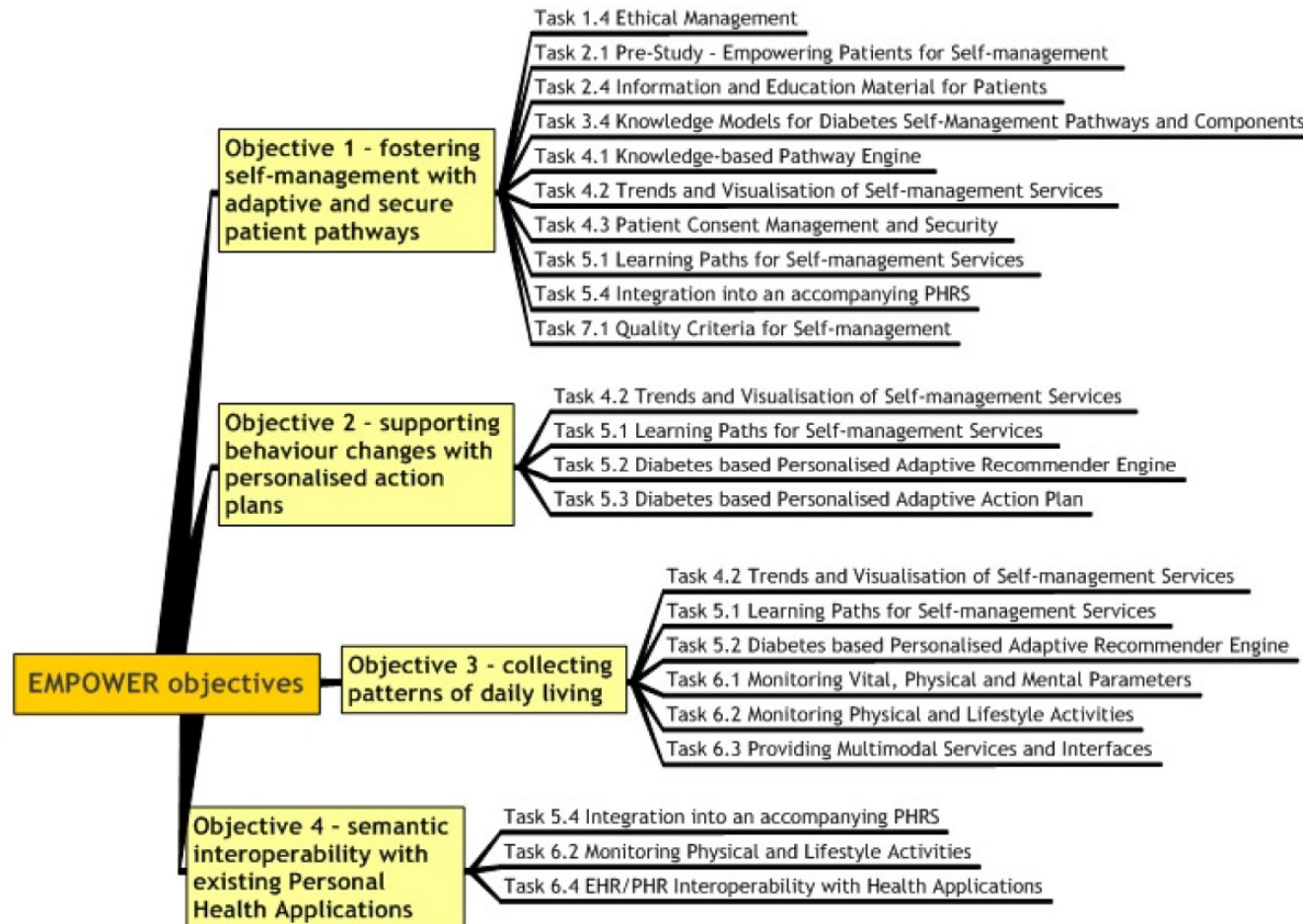
What do patients need to cope better with their chronic diseases as part of their daily life?

Objectives

1. Fostering self-management with adaptive and secure patient pathways
2. Supporting behavior changes with personalized action plans
3. Collecting patterns of daily living
4. Semantic interoperability with existing personal health applications

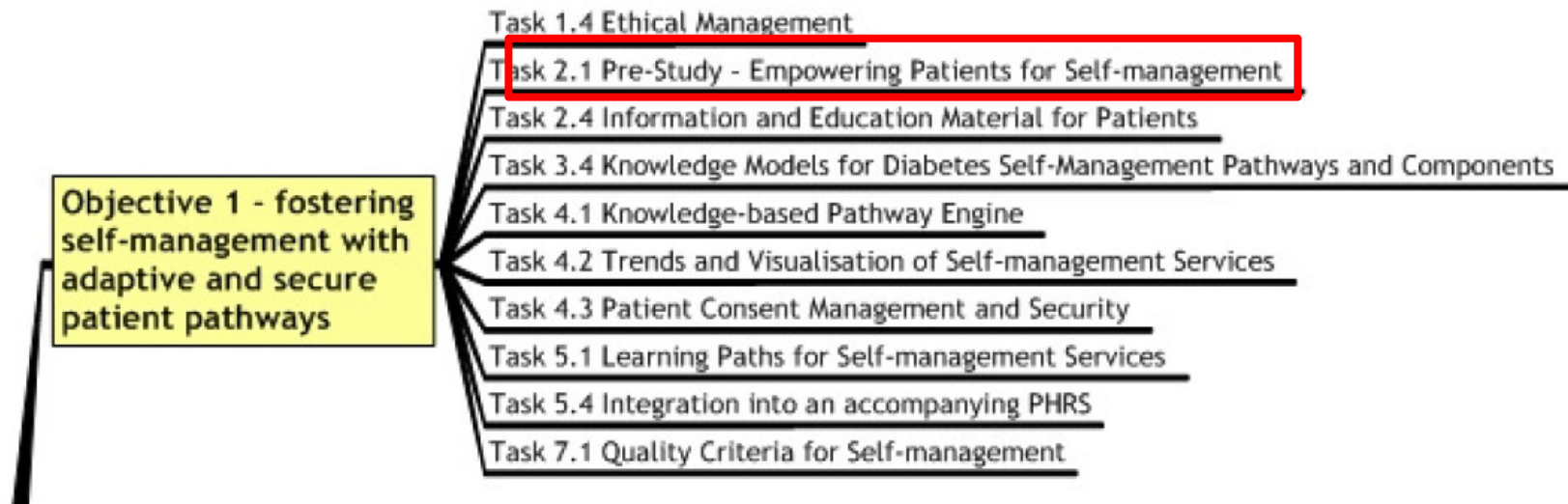
2. EMPOWER

2.2 Work Plan



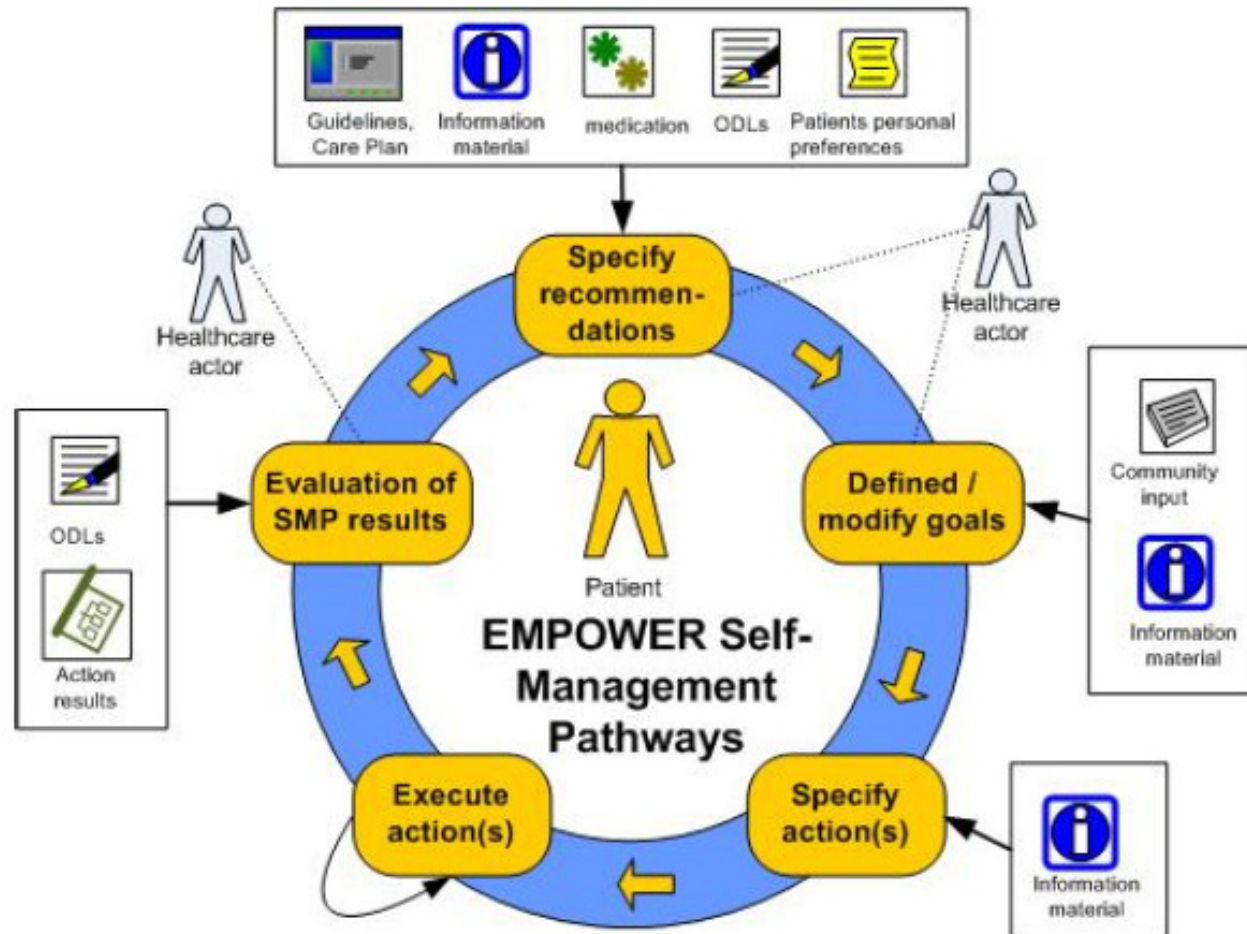
2. EMPOWER

2.2 Work Plan



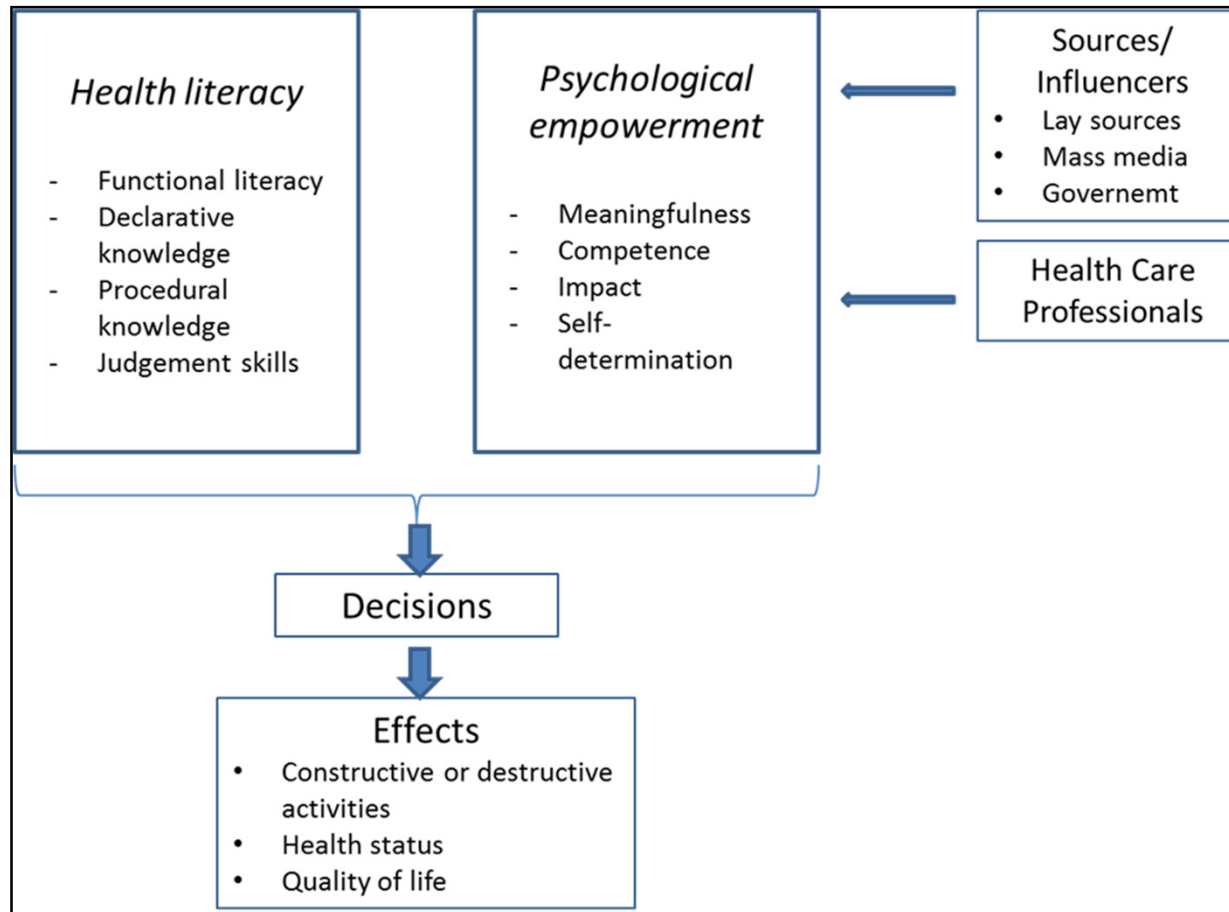
3. Framework

3.1. The EMPOWER Framework



3. Framework

3.2 Health Literacy and Psychological Empowerment



Health Literacy and Psychological Empowerment Model (Schulz and Nakamoto, 2012)

4. Focus Group Study

Three focus groups

Two with diabetes type 2 patients

1. FG: 8 participants (6 male, 2 female)
 2. FG: 10 participants (6 female, 4 male)
- Age:** from 60 to 79

One with doctors 7 doctors (including 6 GPs and 1 ophthalmologists)

Duration: Each group lasted 90 Minutes

Location: GOIN (Gesundheitsorganisation Ingolstadt), Germany

Dates: 27./28.03.2012

4. Focus Group

Results in light of proposed theoretical framework

<i>Psychological Empowerment</i>	
Meaningfulness	Competence
<p>↑ Nutrition</p> <p><i>To follow dietary guidelines is meaningful to me.</i></p>	
<p>↑ Hypoglycemia</p> <p><i>In order to guarantee immediate quality-of-life, I have to avoid hypoglycemia.</i></p>	
<p>↔ Physical Activity</p> <p><i>I wish I could see how physical activity affects me in the long run.</i></p>	

4. Focus Group

Results in light of proposed theoretical framework

Psychological Empowerment	
Impact	Self-Determination
<p>↔ Monitoring Blood Glucose</p> <p><i>Women: "Keeping track has an impact." Vs. "Men: "Keeping track does not make a difference"</i></p>	
<p>↔ Physical Activity</p> <p><i>Physical activity is a means to help me to manage my weight but how could I better manage it?</i></p>	
<p>↓ Quality of Life</p>	
<p><i>"This (measurement result) can't be right! What did I do wrong?"</i> (Female Participant - FG 1)</p>	

4. Focus Group

Results in light of proposed theoretical framework

Health Literacy & Sources/Influencers	
Declarative Knowledge	Procedural Knowledge
<p>↔ Nutrition</p> <p><i>What is the right choice of food?</i></p>	
<p>↑ Monitoring Blood Glucose</p> <p><i>I understand the meaning of the results.</i></p>	<p><i>“I always hear measuring but no one tells you how to measure and when to measure.”</i> (Male Participant – FG 1)</p>

4. Focus Group

Results in light of proposed theoretical framework

<i>Health Literacy & Sources/Influencers</i>	
Judgment Skills	Sources
<p>↑ Listening to oneself</p> <p><i>With time, I have learned what is best for me.</i></p>	<p><i>“ Yes I also have my husband. He also supports me, he observes me.”</i> (Female Participant - FG 2)</p>

5. Need Analysis

Sense-Making in diabetes care

Need	Health Literacy and Psychological Empowerment Model	EMPOWER	Keywords
Timely Information	Impact Meaningfulness Declarative Knowledge	Reminders, Alerts Evaluation	Monitoring Prompt Feedback
Understanding changes in life routines	Self-determination Judgment Skills	Recommendations and Goals Information Material Decision Aids	Information Feedback Mechanisms
Understanding the bigger picture	Meaningfulness Impact	Recommendations and Goals Information Material	Short- and long-term goal setting



Thank you for your attention.

SRA Europe Conference 2012 in Zürich, 19.06.2012

Presenter: Sarah Mantwill

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5. Need Analysis

Behavior change in diabetes care

Need	Health Literacy and Psychological Empowerment Model	EMPOWER	Keywords
Understanding behaviour changes	Meaningfulness Impact	Recomm. and Goals Information Material Decision Aids	Information Interaction
Repetition	Declarative Knowledge Procedural Knowledge	Reminder Action Plan	Information Active Involvement
Reminding	Declarative Knowledge Procedural Knowledge	Reminders	Information Reminder
Personalized Behaviour Changes	Meaningfulness	Recommendations and Goals	Personalization Personalized Information

5. Need Analysis

Social interaction in diabetes care

Need	Health Literacy and Psychological Empowerment Model	EMPOWER	Keywords
The partner, my support.	Sources/Influencers	Patient Consent Information Material	Interaction
The doctor, my support.	Sources/Influencers Declarative Knowledge	Health Actor Services Personalized Recommendations	Interaction
Telling friends.	Self-Determination	Online Community Self-help group	Facebook, Twitter, etc.
Share Experiences	Sources/Influencers	Self-help group Online Community Information Material	Connect with other diabetes patients.

5. Need Analysis

Monitoring in diabetes care

Need	Health Literacy and Psychological Empowerment Model	EMPOWER Patient Empowerment Framework	Keywords
Understanding monitoring	Meaningfulness Impact	Recommendations and Goals Action Plan ODL Evaluation Information	Monitoring Prompt Feedback Personalized information
Affordable and easy to use devices	Self-Determination Declarative Knowledge	Information Online Community	Product information

6. Example: Recommendation

Recommendation: *Tell them why.*

Patients want to make sense out of what they are seeing. Make the act of e.g. measuring blood glucose meaningful to them.

Provide patients with information on why it is necessary to monitor blood glucose levels.

Combine reminders (e.g. sms) of blood glucose monitoring with information on blood glucose. Send out reminders combined linked to information why it is necessary (Make it meaningful to them)

Teaser example:

“Good morning, Daniel. Did you already check your blood glucose level today to see how well you`re reaching your treatment goals?”

“Hey Julia. How is your blood sugar level today? Did you know that high blood sugar levels can increase stress?”

6. Next steps

Leading Partner

Exploitation and Dissemination Plan (Month, 12, 24, 36)

Quality Criteria for Self-Management (Month 24)

Development of Information material for Patients (Month 26)

Involved Partners

Learning Paths for Self-Management Services