



International collaborative research in Europe: the Diabetes Literacy Project

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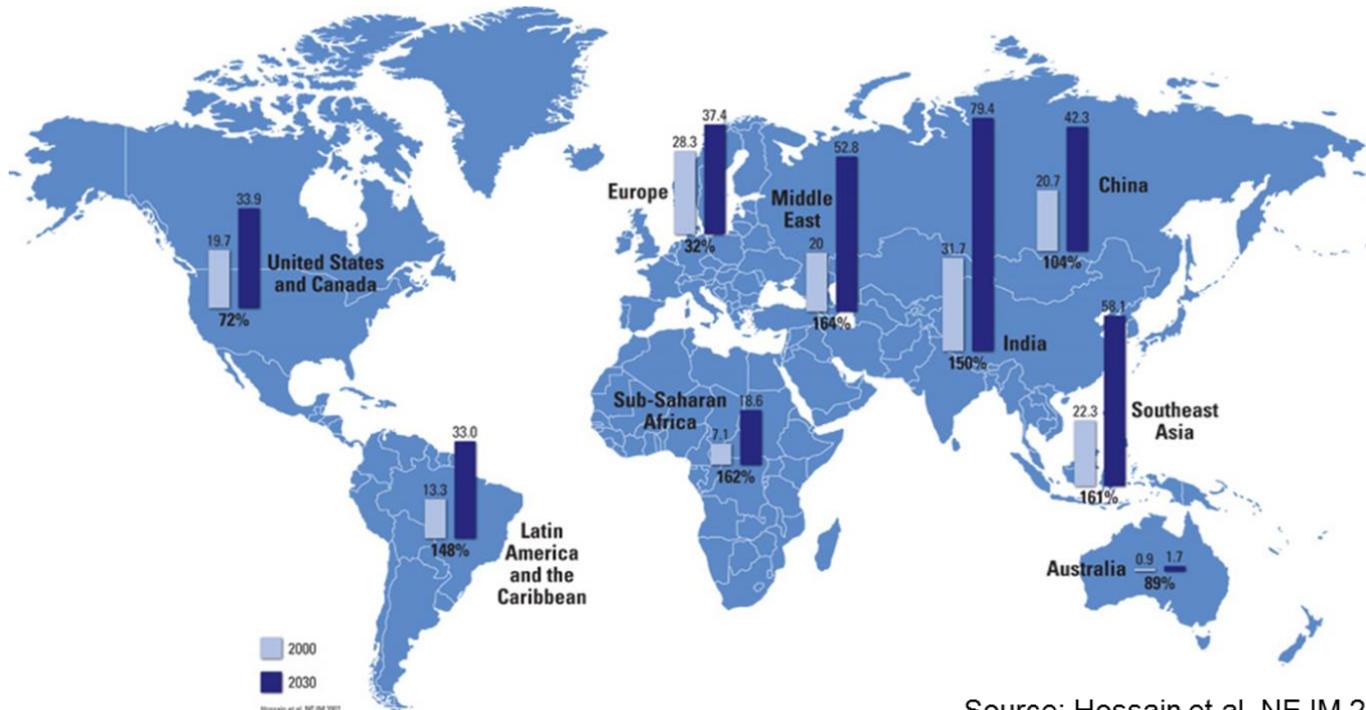
Université Catholique de Louvain
for the Diabetes Literacy Consortium

Presentation at the Diabetes Literacy event:
Strengthening Diabetes Self-Management for all in Europe
Brussels, November 17 2015



The challenge of diabetes

- 387 million patients worldwide
 - 50% unaware that they have diabetes
- 4th cause of death in the EU
 - 300.000 deaths per year
- 5 to 15% of health care costs
- Related to overweight & obesity
- Impact of an ageing population
 - ➔ Increased number of people with diabetes
 - ➔ Increased health care costs related to diabetes



Source: Hossain et al. NEJM 2007 (*million people*)

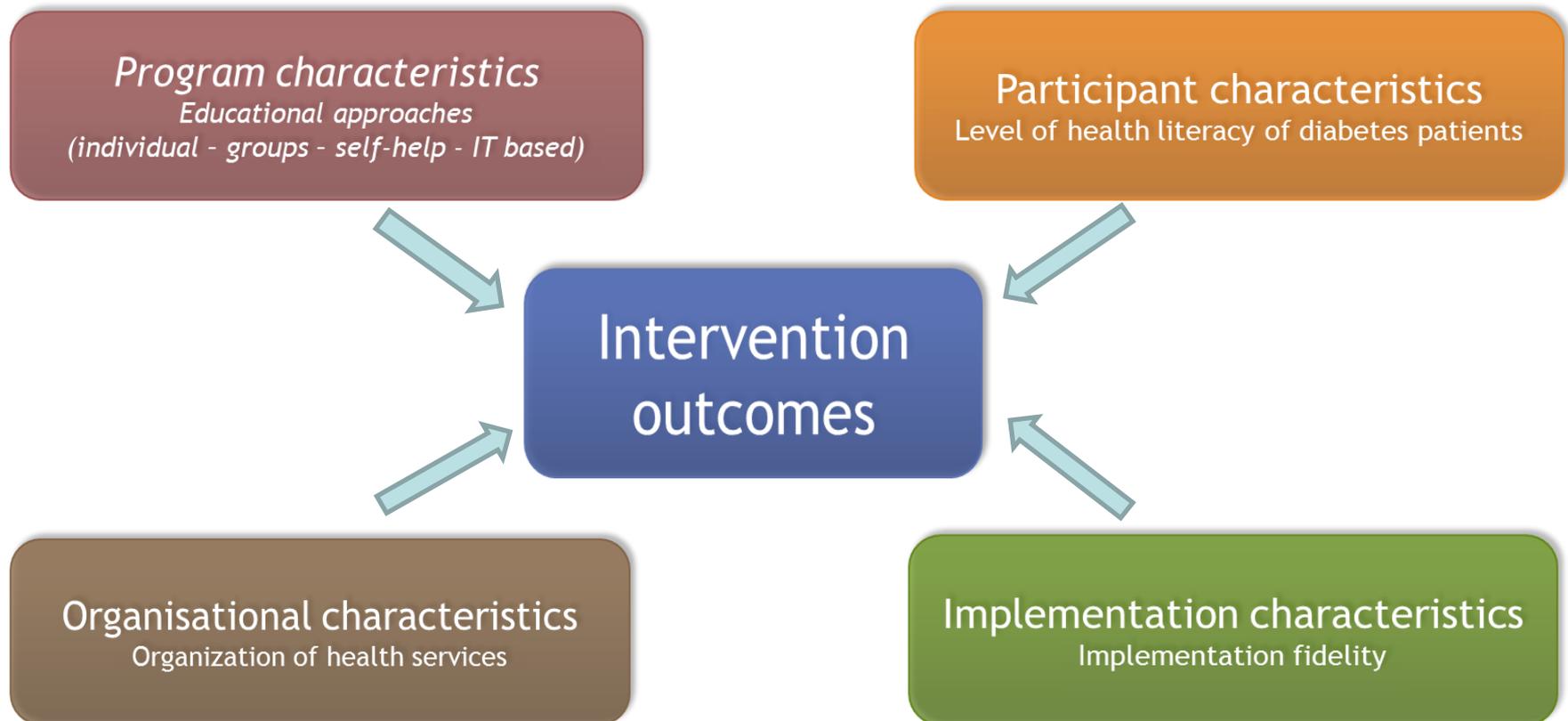
The importance of self-management

- A key determinant of treatment outcome, as diabetes requires intensive self-care
- Enhancing self-management requires patient empowerment
- Questions regarding diabetes self-management education (DSME)



- Which DSME programs are available (in the EU) ?
- What is the (cost)- effectiveness of different approaches?
 - effectiveness of individual-based diabetes education programs has been proven, but not the cost-effectiveness
 - group education, self-help support or IT supported education may be more (cost-)effective, but comparative studies of DSME approaches are scarce
- What are the conditions for effectiveness ?
 - e.g., characteristics of health care system, quality of implementation, ...
- What patient characteristics moderate the effectiveness?
 - Health literacy of Europeans: 10% inadequate and 35% limited HL

Factors influencing diabetes self-management effectiveness



The Diabetes Literacy project



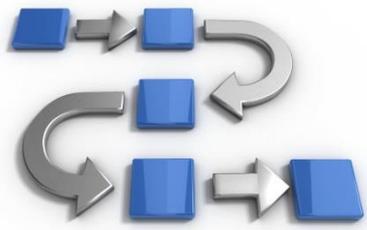
- A European project, funded by the EU through the 7th Framework Programme for Research
- A consortium of organizations from 6 EU Member States (B, D, IRL, NL, A, UK) + Israel, USA and Taiwan
 - + DK and South Africa as collaborating partners
- Aims to provide empirical evidence to increase the effectiveness of self-management education for Type 2 diabetes in adults





Aims of the Diabetes Literacy project

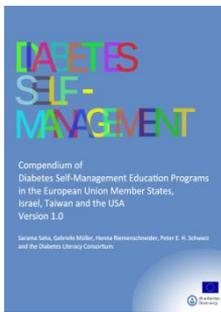
- Perform a content analysis of national diabetes strategies (policies and programs) across the EU
- Assess the (cost-) effectiveness of different formats of diabetes self-management education
- Investigate the mediating role of implementation fidelity on program effectiveness
- Investigate the moderating role on program effectiveness of
 - the participants' level of health literacy
 - organizational characteristics (e.g., ease of access, multidisciplinary staff, patient monitoring system)
- Develop and pilot-test low literacy-appropriate ICT-materials for diabetes self-management education



Methodology

- Surveys among stakeholders
 - Description of the nature and quality of the national diabetes strategies via expert interviews
 - Inventory and description of existing DSME programs via Global Diabetes Survey + online wiki tool
 - assessment of existing costing practices against best practice costing models
- Comparative clinical study
 - Compare effectiveness and cost-effectiveness of different types of DSM education programs
 - Investigate potential moderating or mediating factors for effectiveness (organisation, implementation, patient health literacy)
- Development and pilot testing of online educational materials for diabetes patients with low literacy





Main Findings

- A wide variety of DSME programs is available in Europe
 - Most programs use **group interventions** to empower patients to manage their diabetes, while peer-led support and IT-based programs are less common throughout Europe
 - Existing programs are **not equally distributed** in the population and do not reach all target groups
 - 40-60% of persons with diabetes do not take part in diabetes education
 - **Patient participation** in planning and a participatory approach to program implementation are under-utilized
- Costs of diabetes self-management education
 - Costs **vary greatly** between countries and between programs within countries in the EU, as well as Taiwan and Israel
 - Compared to the overall costs of diabetes care and the treatment of complications, the **costs of DSME programs are low** (generally below € 20 per patient/hour)



Main Findings

- Effectiveness of DSME
 - Overall, DSME programs are **effective** in changing behavior and improving problem solving, healthy coping, and health related quality of life
 - There is no systematic significant difference in the effectiveness of different **formats** of programs (individual, group, self-help, IT-based)
 - Most of the intervention outcomes improved after the intervention, **regardless of the provider's adherence** to the program guidelines
 - For some outcomes, adapting the way in which the program is delivered (not the content) is associated with a greater improvement
 - There are no differences between in effectiveness between people with high and low **health literacy**
- The potential of online support to self-management
 - It is possible to develop web-based materials that are accessible to those with **lower health literacy** but also liked by those with higher literacy
 - A **good design** of web-based programs is more important than adding interactive and audiovisual materials elements



Conclusions

- There is a window of opportunity in Europe to empower diabetes patients to successful self-manage their disease
- Rather than investing in the development of new DSME programs, **existing programs should be made more available and accessible** to patients, and more tailored to cultural and health literacy needs of the participant
- Intensifying and improving the **training of providers** of self-management education, including a greater focus on behavioural and psychological expertise, is essential to ensure the quality of DSME programs
- While in most countries developments are positive, **EU Member States that lag behind** should be supported to further develop diabetes strategies that include self-management education

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