

Implementation interventions: what can we learn from research?

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GIN conference, Chicago 2010

Key messages

- There is much research on implementation interventions, frequently showing moderate impact
- Failures of implementation should be analysed and used for tailoring implementation interventions to needs
- Achieving large scale and sustainable improvement is a major challenge

Systematic reviews on implementation interventions, published 2006-2009

	N=141
Organisational interventions	62
Feedback, reminders, decision support	19
Patient orientated interventions	18
Educational interventions	15
Economic interventions	12
Multifaceted interventions	15

Cochrane Reviews on professional education (impact on performance)

	N trials	ES
Printed educational material (Farmer 2008)	23	+4%
Educational meetings (Forsetlund 2009)	56	+6%
Educational outreach visits (O'Brien 2007)	34	+5%
Audit and feedback (Jamtvedt 2006)	118	+5%

ES=median change on dichotomous performance measures

Integrated early detection program for autism (Oosterling 2009)

- Comprehensive outreach program by child psychiatry hospital, targeted at **well-baby clinics** and primary care
- Comparative evaluation in two regions, including 2793 children referred for diagnosis in 3 years
- ASD was diagnosed 21 months earlier compared to the control region

Improving cardiovascular risk management by involving nurses (Koelewijn/Vd Weijden 2010)

- Nurse-led cardiovascular risk management focused on **life style adherence**: decision aids and motivational interviewing versus minimal nurse-support
- Cluster RCT with 615 patients from 25 primary care practices
- Successful implementation of the nurse-led program, improved life style counseling
- No effects on diet, physical exercise, or 10-year risk

Were these implementation programs successful?

- Successful implementation does not guarantee improved patient outcomes
- Ideally, implementation research should aim to confirm the impact of clinical interventions on patient outcomes

Individualising recall intervals for periodic dental examinations (Mettes 2010)

- Small-group professional **education** and web-based learning for general dentists
- Cluster RCT with 1 138 patients at follow-up from 38 primary care dentists
- Guideline-adherence recall interval increased in low-risk patients (29 versus 11%), but not in high-risk patients (89 versus 98%)

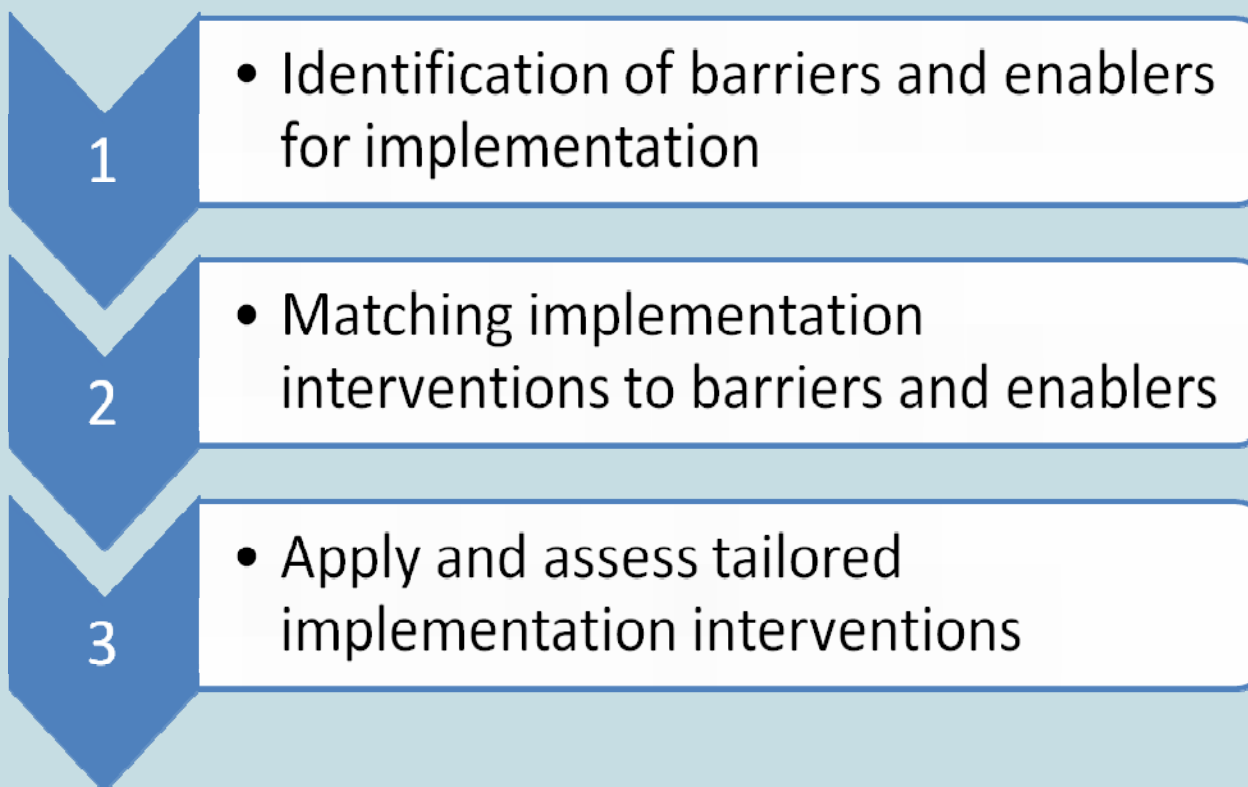
Reducing benzodiazepine use by involving pharmacists (Van de Steeg 2009)

- Comprehensive program for implementation of a **discontinuation letter** for patients by pharmacists
- Cluster RCT with 19398 eligible patients, identified in 89 public pharmacies
- Successful implementation of the program in 72% of pharmacies versus 47% in control group
- No difference on percentage patients who received discontinuation letter (20 versus 13%)

How can we understand these (partial) failures?

- Even comprehensive implementation programs may fail
- It is important to learn from these failures, for instance by further exploration of data and additional qualitative research

Tailored implementation interventions



Types of factors (NICS 2006)

Innovation	Attractiveness, accessibility, feasibility, etc.
Healthcare professional	Awareness, knowledge, attitudes, motivations, routines, etc
Team of professionals	Culture, leadership, collaboration, etc
Patient	Awareness, knowledge, attitudes, motivations, routines, etc
Healthcare organisation	Organisational structure, work flows, resources, etc
Health system	Regulations, reimbursement, policies, etc.

Some issues in tailored implementation

- Different levels of tailoring: project, practice, practitioner
- Pragmatic versus theory-driven methods
- Simple versus time consuming methods
- Perceived barriers versus effect moderators

TICD project (funded by European Community 2011-2014)
will address some of these issues in chronic illness care

Large scale implementation

- Impact of implementation interventions on health outcomes in ‘real conditions’ may be more limited compared to clinical trials
- Nationwide and sustained implementation is an important area for future research, covering economic, organisational and legal aspects



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Implementation and evaluation of disease management in Germany

Research and slides from:

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Allgemein

Anamnese- und Befunddaten

Relevante Ereignisse

Medikamente

Schulung

Behandlungsplanung

Allgemein

Körpergröße cm Blutdruck Serum-Kreatinin Körpergewicht kg Raucher Ja Nein

Begleiterkrankungen

- Arterielle Hypertonie AVK
 Fettstoffwechselstörung Schlaganfall
 Chronische Herzinsuffizienz
 keine der genannten Erkrankungen

Diabetes Mellitus Typ 1

HbA1c-Wert %Path. Urin-Albumin-Ausscheidung

Fußstatus

Pulsstatus Wagner-Stadium Sensibilitätsprüfung Armstrong-Klassifikation Fußstatus
 Spätfolgen Diabetische Nephropathie Diabetische Retinopathie Diabetische Neuropathie

Bei Patienten mit Diabetes mellitus Typ 1 oder 2 ist die Angabe verpflichtend.
 Das Serum-Kreatinin sollte bei Patienten mit Diabetes mellitus Typ 2 grundsätzlich mindestens einmal jährlich erhoben werden. Bei Patienten mit Diabetes mellitus Typ 1 ist dies nur bei persistierender pathologischer Urin-Albumin-Ausscheidung zur Berechnung der glomerulären Filtrationsrate (GFR) erforderlich. Geben Sie bitte den aktuellen Wert in mg/dl oder µmol/l an. Wurde der Wert nicht erhoben, ist zur Vollständigkeit die Angabe „nicht erhoben“ erforderlich.

Bei Patienten, für die die Dokumentation zu einem DMP KHK, Asthma bronchiale oder COPD erfolgt, ist die Angabe optional.

Drucken

OK

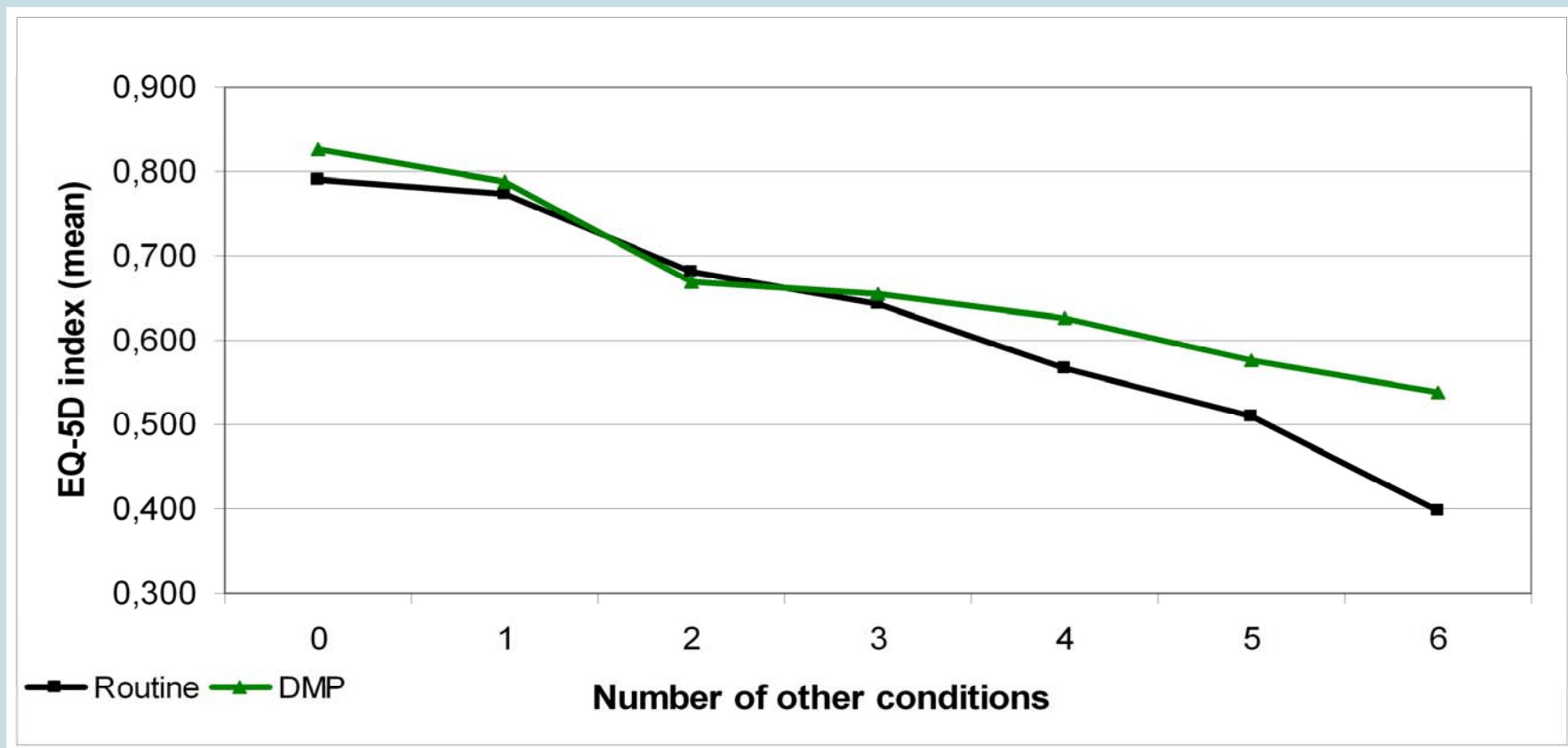
Abbrechen

Disease management in diabetes patients

(Ose 2009; Miksch 2010)

- Comparative evaluation in 3547 diabetes patients, controlled for age, sex and comorbidity
- Health-related quality of life (EQ 5D) was higher in the disease management group, particularly in patients with high comorbidity
- Participation in DMP was associated with higher survival of diabetes patients

DMP for diabetes: impact of co-morbidity



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References

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