




## Why do we not follow guidelines for low back pain?

### Introduction to a planned and theory based approach

**Boston International Forum X**  
 Primary Care Research On Low Back Pain  
 June 14-17, 2009

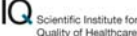

**Geert Rutten**  
**Janneke Harting**  
**Angelique Schlieff**  
**Rob Oostendorp**  
**Nanne de Vries**  
 Advisory board




## Guideline Implementation in Physical Therapy (GIPhT study 2007 - 2010)


Planned and systematic, theory-based development and pilot-test of an intervention to enhance the implementation of the Dutch Physiotherapy and Manual physiotherapy Guidelines for low back pain

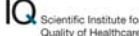



## Introduction

- Implementation of guideline is limited
  - lack of efficiency (and effectiveness) in treatment
  - quality of care
- Interventions to enhance adherence to the guidelines have been moderately effective
  - lack of theoretic frame work
  - no rationale for the development of a suitable intervention




## Planned and systematic Intervention Mapping

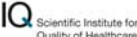

Problem assessment  
 Intervention development

- Matrices
- Theory based methods and practical strategies
- Program

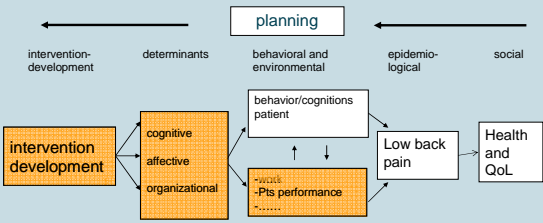
Implementation and Evaluation

(Bartholomew et al., 2006)







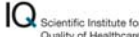

## Problem assessment



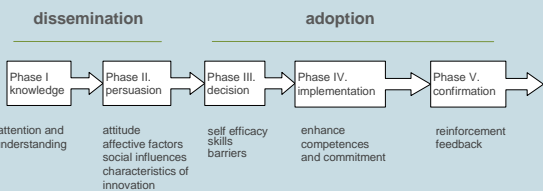
The diagram illustrates the process of problem assessment. It starts with 'intervention development' on the left, which leads to 'determinants' (cognitive, affective, organizational). These determinants influence 'planning', which is informed by 'behavioral and environmental' and 'epidemiological' factors. 'planning' leads to 'behavior/cognitions patient', which in turn leads to 'Low back pain'. 'Low back pain' is linked to 'Health and QoL'. There is also a feedback loop from 'Low back pain' back to 'behavior/cognitions patient'.

(Green & Kreuter, 1999)







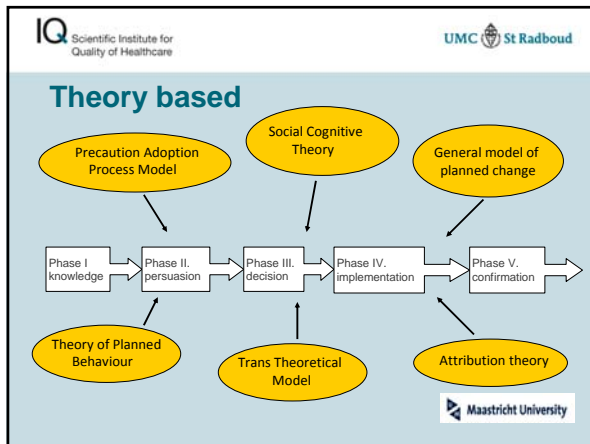
## Theory based



The diagram shows the theory-based process of dissemination and adoption. It is divided into two main stages: 'dissemination' and 'adoption'. 'dissemination' includes Phase I (knowledge) and Phase II (persuasion). 'adoption' includes Phase III (decision), Phase IV (implementation), and Phase V (confirmation). Each phase has associated factors: Phase I (attention and understanding), Phase II (attitude, affective factors, social influences, characteristics of innovation), Phase III (self-efficacy, skills, barriers), Phase IV (enhance competences and commitment), and Phase V (reinforcement, feedback).

(Rogers' Diffusion of Innovations Theory, 1995)





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## Problem assessment

Literature study

Focus group interviews

- disseminators
- adopters

Questionnaire survey (2 rounds)

- adherence
- awareness
- determinants

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## Results: adherence

Overall adherence: 49.9% ( $SD = 7.8$ )

Perceived adherence: 16.3% low  
40.0% average  
43.7% high

Correlation: .28

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## Results: awareness individual PT

### Estimations of personal adherence

- Under estimators (15.9%) - vigilant
- Realists (40.6%) - contemplative
- Over estimators (43.5%) - autonomous

→ Moderating factor

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## Results determinants - Intervention

### Behavioral objectives

Individual PT Self regulation; Clinical reasoning; Psychosocial factors; Questionnaire use  
Various modifiable determinants; awareness

### Environmental objectives

Practice level Quality management  
Patient Informed about guideline  
GL developers More readable guideline that supports clinical reasoning; levels of evidence; attractive format  
Prof. organization Be transparent about expectations; facilitation and supportive policy

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## Intervention development: matrix individual PT

determinant per- formance objective	attention	knowledge	affective factors	etc.
1.PTs see the GL as a valuable quality tool	1.PTs read and recognize the procedural line of the GL 2.PTs recognize purpose of the GL	1.PTs show ability to present main recommendations of GL 2.PTs enumerate advantages of GL 3.PTs can deliberate about sound arguments to deviate from GL's recommendations	1.PTs (RL) recognize why GL evokes feelings of discomfort	1 ..... 2 .....
2.PTs decide to make an effort to improve their adherence to the GL			1.PTs acknowledge that GL can evoke feelings of pride when they see that (parts of) their actual practice meets the recommendations 2.PTs recognize when the GL evokes feelings of confidence 3...	1 ..... 2 .....

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## Intervention development: matrix practice quality manager (PQM)

determinant	commitment/ attitude	management	etc...
<b>per- formance objective</b>			
<b>1. POW/PQM plans and makes preparations for a quality improvement project</b>	1.The POW/PQM brings quality improvement / GL adherence to the attention of his/her colleagues 2.The POW/PQM assesses the individual ideas about / needs for quality improvement with colleagues	1.The POW/PQM makes time schedule for quality activities 2.The PQM/POW plans structural deliberation meetings in which quality improvement / GL use are the subject	1. ....
<b>2. POW/PQM executes the quality improvement project</b>	1.The POW/PQM shows enthusiasm about the quality improvement project	1.The POW/PQM organizes and implements structural deliberation meetings 2.The POW/PQM....	1. ....

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## Intervention development: Methods and strategies (theory based)

change objectives	theoretical methods	practical strategies
1AT1-2	- consciousness raising: self reevaluation /self monitoring (TTM; Self Regulation Theory) - self judgement (Self Regulation Theory)	- making it personally relevant: feedback on the vignette scores - recognizing personal knowledge gaps
1KNO1-2	- self reaction (Self Regulation Theory) - implementation intentions (Goal Setting Theory) - reinforcement (SCT; Adult learning theory)	- setting personal learning goals and - deciding when and how to achieve them - determining self-incentives
1KNO1-3	- active information processing (Elaboration Likelihood Model; Persuasion Communication Matrix)	- guided discussion: How do we think about the recommendations of the GL - Considering sound arguments to deviate from the GL
1AF1	-self observation (SRT)	-small group work: does the GL evoke feelings of discomfort (Realists) – when and why
etc.	.....	.....

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## Program, implementation and evaluation

**Program:** Combination of strategies on the distinct levels  
Developing materials

**Pilot:** September – November 2009  
10 practices / 40 PTs  
PTs 4 sessions / Managers 6 sessions

**Evaluation:** Process - observation; interviewing  
Effect - vignettes; questionnaire

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## Results: adherence

Indicators	Mean (SD)
<b>Overall adherence</b>	<b>49,9% (7.8)</b>
ind_1: assessment of red flags	98.3% (6.7)
ind_2: use of the ICF subsets	7,9% (15.2)
ind_3: choice of patient profile	64.9% (24,9)
ind_4: referral to/ contact physician in case of specific LBP or red flags	98.3% (6.4)
ind_5: choice of examination objectives	6.0 % (13.1)

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## Results: adherence

Indicators	Mean (SD)
<b>Overall adherence</b>	<b>49.9% (7.8)</b>
ind_6: choice of treatment objectives	29.3% (25.6)
ind_7: choice of strategies	38.9% (30.2)
ind_8_ac: number of sessions acute LBP	30,1% (45.9)
ind_9: giving adequate advice	5.5% (12.6)
ind_10: use of questionnaires	10,9% (20.0)
ind_11: aftercare arranged	86,2% (26,9)
ind_12: written report to physician	82.9% (35.5)

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