

# Tailored cognitive behavior E-health therapy for chronic somatic conditions



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***“Future care is different ...***

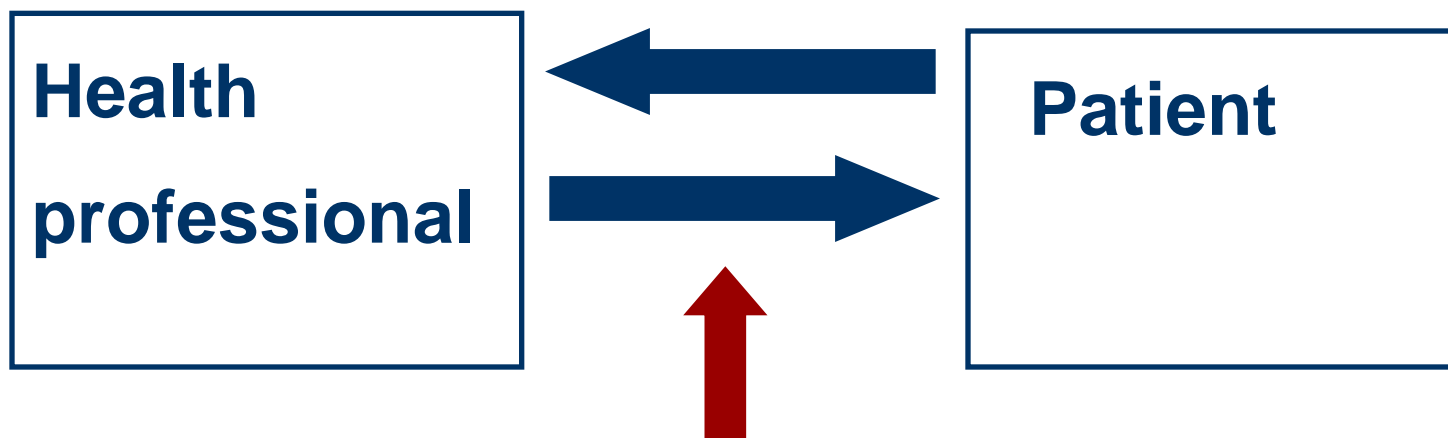
***...the patient becomes more central and takes more responsibility...***

***...the care becomes more complex with more disciplines and care providers have more multidisciplinary contact with each other”.***

Freeband Communication,  
Invitation Care Conference, febr. 2007



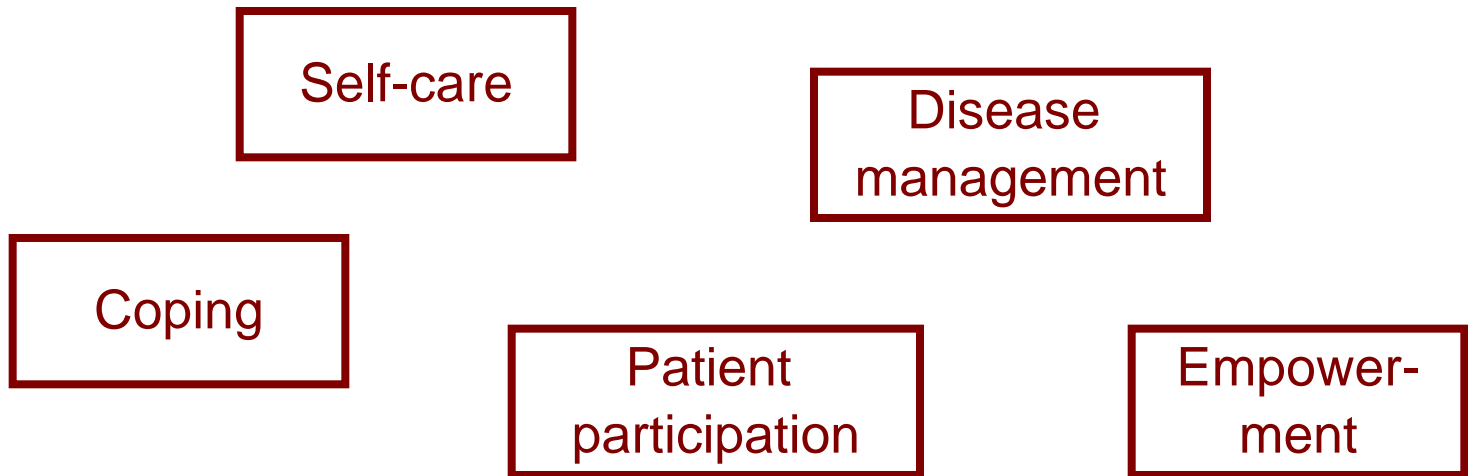
**More effective treatments  
with more complex, multidisciplinary care**



**E-health:  
Medium for communication,  
screening and treatment**

# Increasing attention for long-term character of somatic conditions

..... learning to live with ...



## Cognitive behavior therapy for somatic conditions

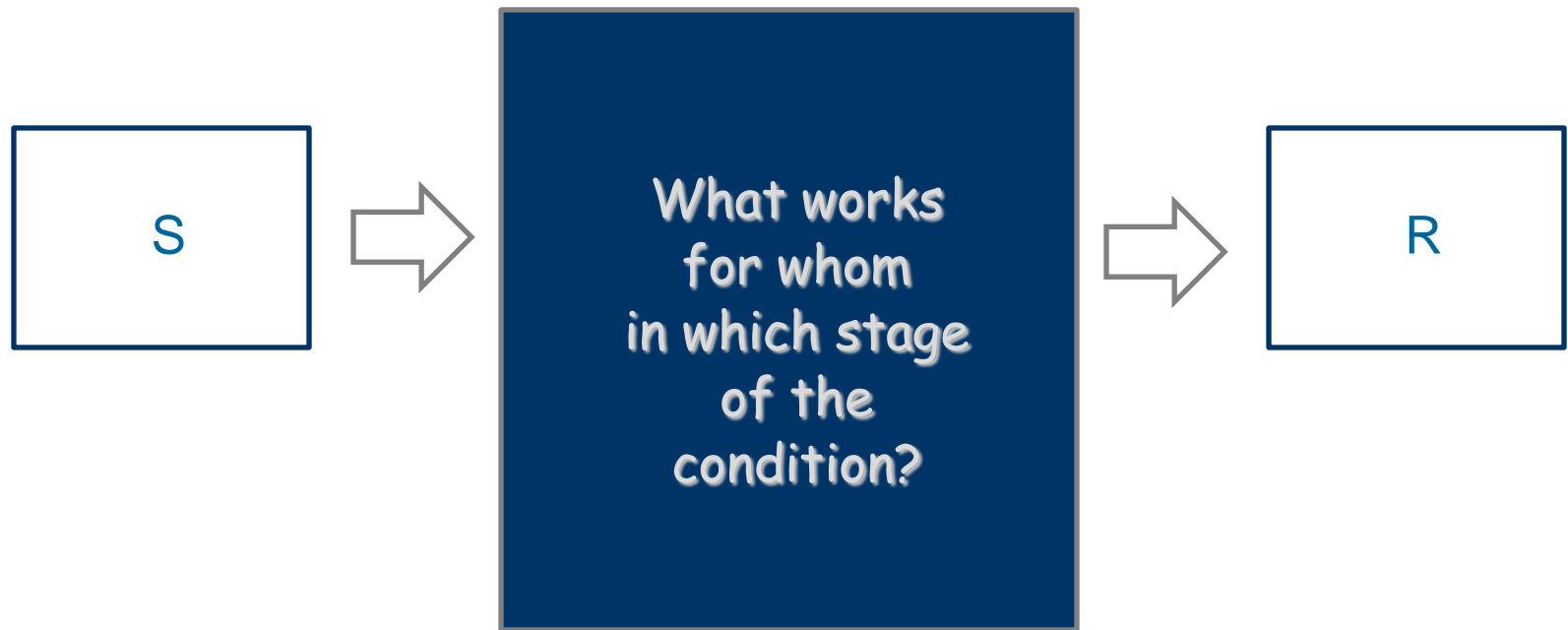
- Directed at change of physical and psychological complaints
  - Focus on cognitive-behavioral mechanisms “how to cope with”
  - Relatively short-term character
- Method with generally most evidence  
for significant and clinically relevant effects



## Limited effects of cognitive-behavioral treatments for chronic somatic conditions

1. Treatments for **all patients** with chronic somatic conditions
2. **Generic treatments** that are the same for all patients

# Cognitive behavioral interventions in chronic somatic conditions





## Stepwise care approaches in chronic somatic conditions

1. Risk factors for long-term functioning
2. Screening instruments for patients at risk
3. Tailored treatment for patients at risk



## Examples of effective stepwise care with tailored approaches for chronic somatic conditions

1. Tailored cognitive behavior therapy for rheumatoid arthritis
2. Multidisciplinary itch-coping training for chronic skin diseases
3. Tailored cognitive behavior therapy and exercise therapy for fibromyalgia

# Stepwise care in chronic somatic conditions:

## Examples from chronic rheumatic and skin diseases

1. **About 30-40% of patients has slight to severe psychological adjustment problems.**
2. Risk group patients can be identified at an early stage with standardized questionnaire assessments.
3. Tailored cognitive behavioral therapy is effective for chronic somatic diseases



# Prospective studies chronic somatic diseases

- Risk group 30-40% with psychological adjustment problems
- Coping with the disease e.g. life style, worrying, scratching, social support
  - ➔ prognostic factor for long term physical and psychological functioning



# Stepwise care in chronic somatic conditions:

## Examples from chronic rheumatic and skin diseases

1. About 30-40% of psoriasis patients has slight to severe psychological adjustment problems.
2. **Risk group patients can be identified at an early stage with standardized questionnaire assessments.**
3. Tailored cognitive behavioral therapy is effective for patients at risk with chronic somatic diseases.





# Screening risk profile

With standardized questionnaire assessments

- Physical functioning
- Psychological adjustment problems:  
anxiety and depression
- Cognitive behavioral factors: coping with the chronic disease

## 40 MEETINSTRUMENTEN

De auteurs zijn werkzaam bij de afdelingen Medische Psychologie en/of Dermatologie van het Radboud Universitair Medisch Centrum, Nijmegen. De IHDL is verkrijgbaar bij de eerste auteur.

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A.W.M. Evers, P. Duller, P.C.M. van de Kerkhof, P.G.M. van der Valk, M.J. Gerritsen, M.E. Otero, E.W.M. Verhoeven en F.W. Kraaimaat

Invloed van huidaandoeningen op het dagelijks leven (IHDL)  
*Een ziektespecifiek en generiek meetinstrument voor chronische huidaandoeningen*





# Stepwise care in chronic somatic conditions:

## Examples from chronic rheumatic and skin diseases

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Pain 100 (2002) 141–153

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**PAIN**

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[www.elsevier.com/locate/pain](http://www.elsevier.com/locate/pain)

## Tailored cognitive-behavioral therapy in early rheumatoid arthritis for patients at risk: a randomized controlled trial

Andrea W.M. Evers<sup>a,\*</sup>, Floris W. Kraaijmaat<sup>a</sup>, Piet L.C.M. van Riel<sup>b</sup>, Alphons J.L. de Jong<sup>c</sup>

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# Development of validated screening instrument

Risk profiles based on prognostic factors

- Psychological adjustment problems  
anxiety and depression
- Cognitive behavioral risk factors  
with regard to the chronic somatic condition

Evers et al., 1998; 2001; Kraaimaat et al., 1997



# Tailored cognitive-behavior therapy for patients at risk

- Changing the way of coping with RA
- 10 sessions
- Individual programs
- Choice of 2 out of 4 treatment modules
  - Pain and disability
  - Fatigue
  - Negative mood
  - Social relationships



# Conclusions for tailored cognitive behavior therapy

- Tailored cognitive behavior therapy in RA effective for
  - physical functioning
  - psychological functioning
  - social functioning
  - cognitive behavior factors
- Moderate effects
- Effects stable at follow-up
- Utility of tailored, stepwise care approaches



## Examples of effective stepwise care for chronic somatic conditions

1. Tailored cognitive behavior therapy for rheumatoid arthritis
2. Multidisciplinary itch-coping training for chronic skin diseases
3. Tailored cognitive behavior therapy and exercise therapy for fibromyalgia

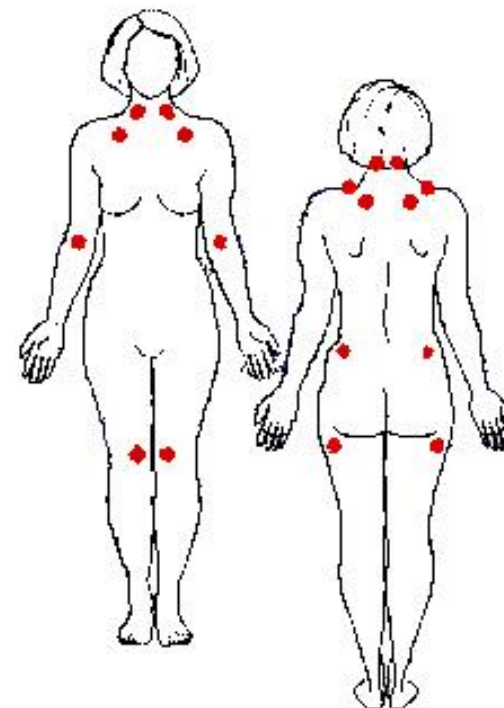


# Fibromyalgia

## Generalised pain

### 11 of 18 tender points

## Tender Points



## REVIEW

Cognitive-behavioural therapies and exercise programmes for patients with fibromyalgia: state of the art and future directions

S van Koulil, M Effting, F W Kraaimaat, W van Lankveld, T van Helmond, H Cats, P L C M van Riel, A J L de Jong, J F Haverman, A W M Evers

Multidisciplinary treatment in fibromyalgia:  
Tailored cognitive behavior therapy and exercise therapy

- Tailored cognitive behavior therapy, customized to risk profiles of pain avoidance and pain persistence
- Improvement on all primary outcome parameters (pain, fatigue, disability, anxiety and depression)
- Large effect sizes ( $>.70$ ) and stable at follow-up



## Examples of effective stepwise care for chronic somatic conditions

1. Tailored cognitive behavior therapy for rheumatoid arthritis
2. Multidisciplinary itch-coping training for chronic skin diseases
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# Itch in chronic skin diseases



Prevalence itch

50% of patients with chronic skin diseases (e.g. atopic dermatitis, psoriasis)

25% chronic, severe itch

Consequences: chronic scratching, worsening skin condition and disease severity

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CONCISE COMMUNICATION

DOI 10.1111/j.1365-2133.2007.07916.x

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## **Prevalence of physical symptoms of itch, pain and fatigue in patients with skin diseases in general practice**

E.W.M. Verhoeven,\* F.W. Kraaijmaat,\* P.C.M. van de Kerkhof,† C. van Weel,‡ P. Duller,\*†  
P.G.M. van der Valk,† H.J.M. van den Hoogen,‡ J.H.J. Bor,‡ H.J. Schers‡ and A.W.M. Evers\*†

Departments of \*Medical Psychology, †Dermatology and ‡General Practice, Radboud University Nijmegen Medical Centre, P.O. Box 9101, 6500 HB, Nijmegen, the Netherlands

## Effects multidisciplinary training 'Coping with itch'

- Clinical and self-reports in 62 patients with skin diseases and 30 patients waitinglist control group
- After treatment, 3 and 12 months follow-up
  - Itch and scratching behavior (ES >.70)
  - Clinical severity eczema (EASI score) and health care use (ES >1.0)



Acta Derm Venereol 2008 Preview

### CLINICAL REPORT

### Effectiveness of a Multidisciplinary Itch-coping Training Programme in Adults with Atopic Dermatitis

Andrea W. M. EVERS<sup>1,2</sup>, Piet DULLER<sup>1,2</sup>, Elke M. G. J. DE JONG<sup>2</sup>, Marisol E. OTERO<sup>2</sup>, Christianne M. VERHAAK<sup>1</sup>, Pieter G. M. VAN DER VALK<sup>2</sup>, Peter C. M. VAN DE KERKHOF<sup>2</sup> and Floris W. KRAAIMAAT<sup>1</sup>

Departments of <sup>1</sup>Medical Psychology, and <sup>2</sup>Dermatology, Radboud University Nijmegen Medical Centre, Nijmegen, The Netherlands

Evers et al., 2005

Evers et al, 2009

Stepwise care  
with tailored cognitive behavioral therapy  
for patients at risk with chronic somatic conditions

.... is an effective and clinically relevant  
addition to the regular care!





# Regional and national implementation

Limitations:

- Lack of specialized cognitive behavioral therapists
- Training trajectory takes a long time



# A possible solution for this implementation problem

E-Health screening and tailored treatment

E-Health:

The integration of healthcare and technology



# Possible E-health benefits for patients with chronic somatic diseases

- Interest of patients in E-Health care
- Greater flexibility for patient and therapist
- No travel distance
- Reduced contact hours
- Reduced number of sessions
- More cost effective care



## Current project

# Tailored cognitive behavioral E-health care in patients with chronic somatic diseases



# Current E-Health project

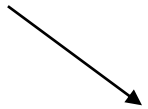
- E-health screening and tailored cognitive behavioral therapy in chronic somatic diseases e.g. psoriasis, arthritis psoriatica, rheumatoid arthritis
- Feasibility study and patient perspectives
- RCT
  - ➔ (Cost) effectiveness





## Target groups E-Health

- |  |     |
|--|-----|
| 1. No psychological adjustment problems        | 30% |
| Advice: No additional care                     |     |
| 2. Slight psychological adjustment problems    | 30% |
| Advice: Patient education                      |     |
| 3. Relatively severe adjustment problems       | 30% |
| Advice : E-health cognitive behavioral therapy |     |
| 4. Very severe adjustment problems             | 10% |
| Advice: face to face treatment                 |     |





# E-Health screening

(ZCL)

In deze vragenlijst vindt u een lijst met diverse uitspraken van mensen met een langdurige ziekte.

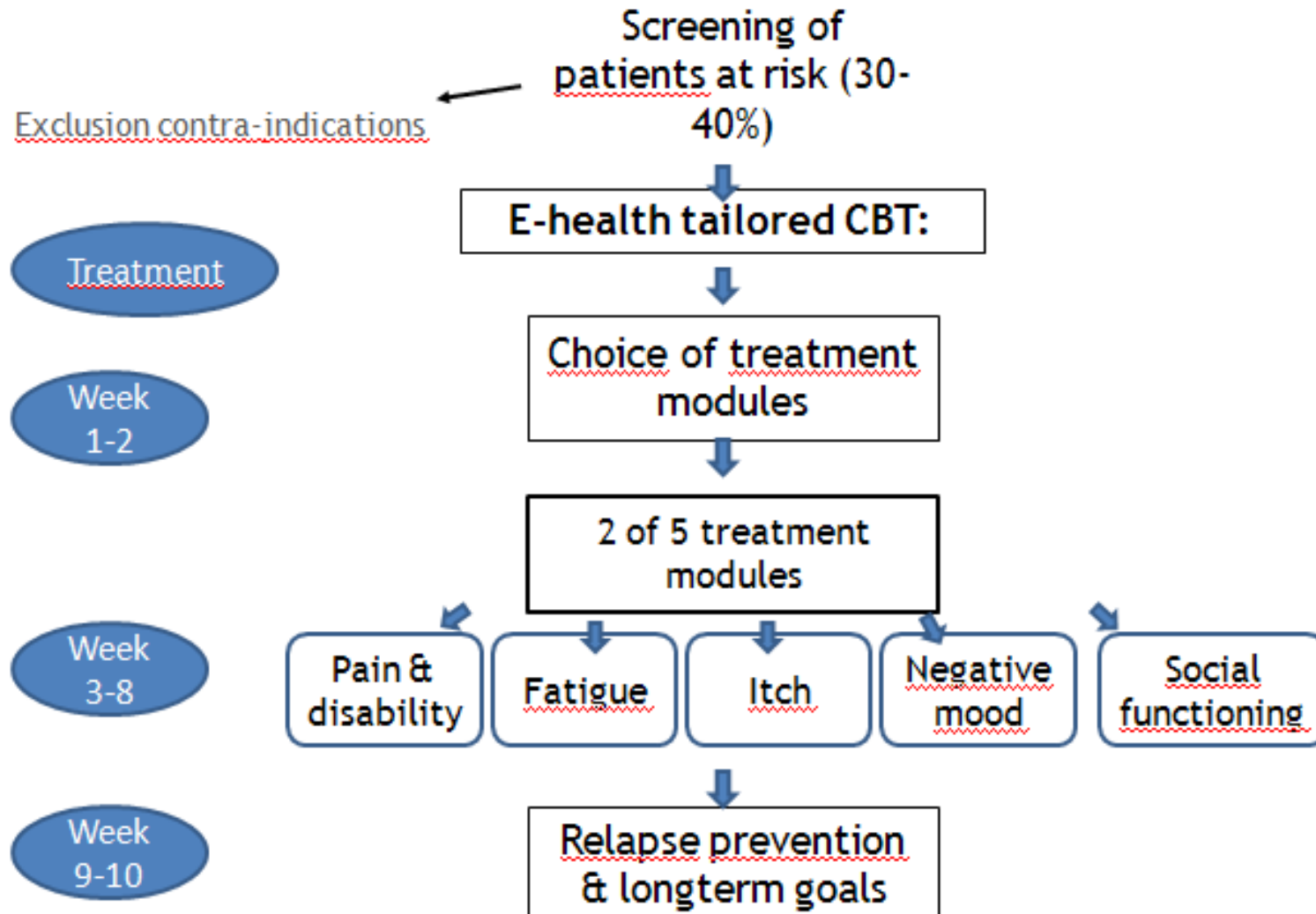
Wij willen u vragen aan te geven in welke mate u het met deze uitspraken eens bent.

U doet dit door één van de antwoordmogelijkheden achter de desbetreffende uitspraak aan te klikken

	niet	een beetje	in sterke mate	helemaal
1. Door mijn ziekte mis ik de dingen die ik het liefst doe.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Ik kan de problemen, die mijn ziekte met zich meebrengt, aan.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Ik heb met de ziekte leren leven.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Het omgaan met mijn ziekte heeft me sterker gemaakt.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
5. Mijn ziekte beheerst mijn leven.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
6. Ik heb een heleboel geleerd door mijn ziekte.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. Mijn ziekte geeft me soms het gevoel nutteloos	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



# E-health



# Collaboration with patient organizations

- Research partners from patient organizations  
(Psoriasis Vereniging Nederland, Reumapatiëntenbond)
- Feasibility of treatment protocol  
and website applications
- Pilot study with “simulation” patients



## Feasibility study 2008-2009

- Development of treatment program and E-Health website
- 71 patients asked to participate
- Only 7 patients (10%) refused due to lack of internet use
- After screening of patients at risk (42%), ongoing E-health cognitive-behavioral treatment
- Preliminary results from analyses treatment content material:
  - treatment protocol and website are feasible
  - patients report benefits on physical and psychological functioning





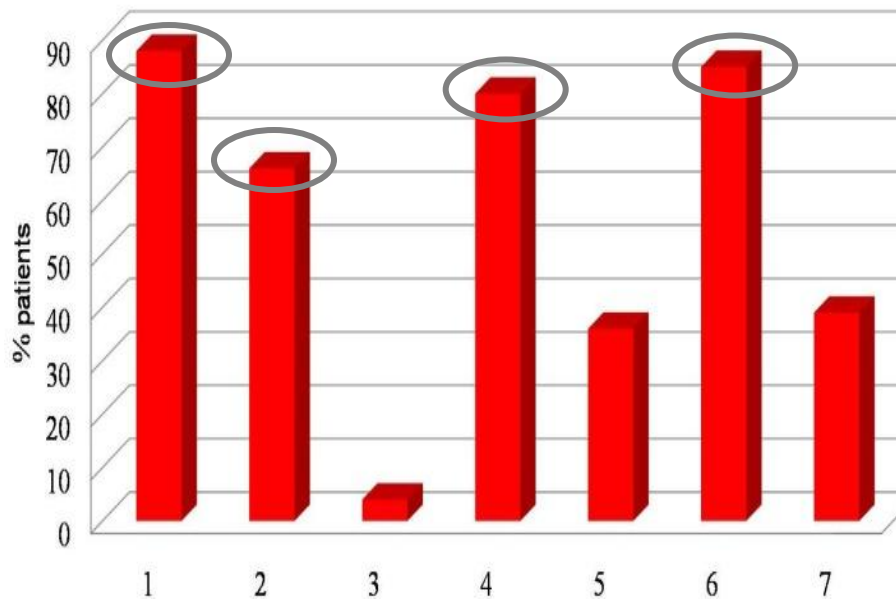
## **Patient perspectives study 2009**

### **E-health for tailored cognitive-behavioral care**

- Literature search about possible disadvantages and advantages of E-health applications as perceived by patients
- Structured interview with 50 patients with psoriasis and 50 patients with rheumatoid arthritis (UMC St Radboud)

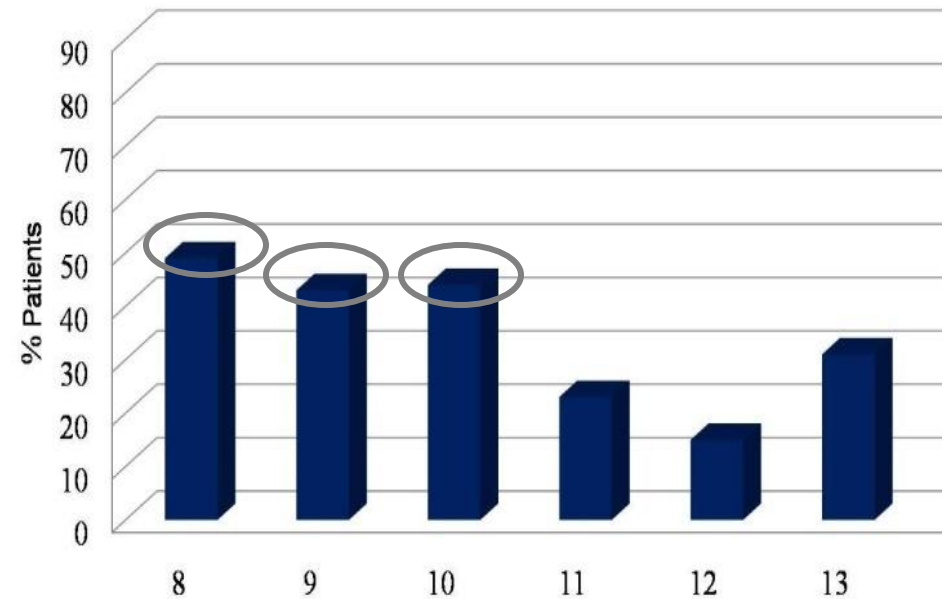


## Advantages



- 1) No travel time or travel costs
- 2) No waiting times before consult
- 3) No acquaintances encountered
- 4) Own decision when to spend time to treatment
- 5) Possibly easier to share personal problems
- 6) Following treatment at home
- 7) Possibly easier to ask for help

## Disadvantages



- 8) Not all patients can be reached
- 9) Experience with computer is required
- 10) No face-to-face contact with therapist
- 11) Spend time behind the computer dregularly
- 12) More discipline may be needed
- 13) Safety issues



# Conclusions: Patient perspectives

- Patients view more advantages than disadvantages for e-health treatments.
- Majority of patients (78%) would participate in E-coaching.
- For those patients who are less attracted by E-coach treatments, the interventions might be slightly adapted by adding telephone or face-to-face contacts.



# E-Health Randomized Control Trial 2009-2012

- Screening and tailored cognitive-behavioral treatment with E-health for patients with psoriasis, arthritis psoriatica and rheumatoid arthritis
- (Cost) effectiveness study
- Cooperation with other medical centres  
(e.g. research network of several hospitals)



# Conclusions: E-health tailored cognitive behaviour therapy for chronic somatic diseases

- Stepwise approaches of tailored CBT are effective for chronic somatic diseases (e.g. rheumatic and skin diseases)
- Patients are highly interested in E-health CBT applications and view more advantages than disadvantages
- E-health tailored CBT programs for patients with chronic somatic diseases are feasible and a promising new care development





## With thanks to ...

Medical Psychology, Dermatology  
& Rheumatology

## UMC St Radboud & cooperating centres

### Research partners

- H. Ros
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- J. Bugter

### Project group

- P.C.M. van de Kerkhof
- E.M.G.J. de Jong
- P. L.C.M. van Riel
- M. van de Laar
- F.W. Kraaimaat
- S. van de Goor
- D. Hoeve
- I. Vermeulen
- S. Spillekom
- R. te Winkel-Slotboom
- M. Polderman

