



**SIP**

Societal Impact of Pain

Policy requirements on  
psycho-education  
including cognitive  
behavioral therapy and  
exercise for chronic pain  
patients

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# Disclosure Statement of conflict of interest in the context of the subject of this presentation



**Within the past 12 months, I have had following financial interest/arrangement(s) or affiliation(s) :**

**Honoraria for lectures and for advisory board activities :**  
**Pfizer, Grünenthal, Mylan, Mundipharma**

# **Disclosure Statement of Financial Interest**

**I, Pr Françoise Laroche DO NOT  
have financial interest/arrangement  
or affiliation with one or more  
organizations that could be  
perceived as a real or apparent  
conflict of interest in the context of  
the subject of this presentation.**

# Rationnal

- **multidisciplinary programs** : improve pain, psychologic, physical functioning, health care utilization and interference to return to work (*Flor, Pain 1992*)
- **CBT** : improve domains of pain experience, cognitive coping, appraisal, behavioral expression of pain (*Morley, Pain 1999*)

# Multidisciplinary interventions and psychoeducation

## Effective in Chronic Low Back Pain

- pain intensity
- cognitive coping
- behavioral expression of pain
- health-related quality of life
- depression

*Morley S, Pain 1999, Hoffman B, Health Psychol 2007, Lamb S, Lancet 2010, Henschke Cochrane Database 2010*

# Cognitive behavioural therapy alone or including exercise

## **Trials – Overview for Chronic Low Back Pain**

- ***Turner, Spine 1996***
- ***Morley, Pain 1999***
- ***van Tulder, Spine 2000***
- ***Linton, Clinical J of Pain 2005***
- ***Ostelo, The Cochrane Library 2006***
- ***Hoffman, Health Psychology 2007***
- ***Johnson, Spine 2007***
- ***Henschke, Cochrane Database Syst Rev 2010***
- ***Cramer, BMC Complement Altern Med 2012***
- ***Richmond, PLoSOne 2015***
- ***Cherkin, JAMA 2016***
- ***Turner, Pain 2016***
- ***Morone, JAMA Intern Med 2016***

# Multidisciplinary interventions and psychoeducation

## Recommendations - LBP

- Chou, 2007. Non pharmacologic therapies for acute and chronic low back pain: a review of the evidence for the **American Pain Society** and **American College of Physicians clinical practice guideline**
- **European Guidelines** for the management of chronic non specific low back pain (COST B13), 2004
- Koes, van Tulder, Thomas. **Diagnosis and treatment of low back**, BMJ 2006
- **French recommendations**. Haute Autorité Santé, 2000

# Multidisciplinary interventions and psychoeducation

## « What works for whom? - Challenges

- Patients selection → Matched intervention to patient's characteristics
  - early in the disease
  - psychosocial yellow flags
  - patient knowledge
  - personal locus of control
  - kinesiophobia
  - readiness to change
  - coping
  - efficacy expectations
  - treatment credibility
  - patient's preference



# Cognitive behavioural therapy alone or including exercise

## Our program

- **General objectives** : understanding, restoring function, decreasing limitations, catastrophizing and fear, increase health behaviour *(Smeets, J Pain 2006)*
- **Patients** : CLBP patients referred for outpatient multidisciplinary rehabilitation care and CBT

# CBT and exercise for chronic low back pain

## Our program

### - Intervention :

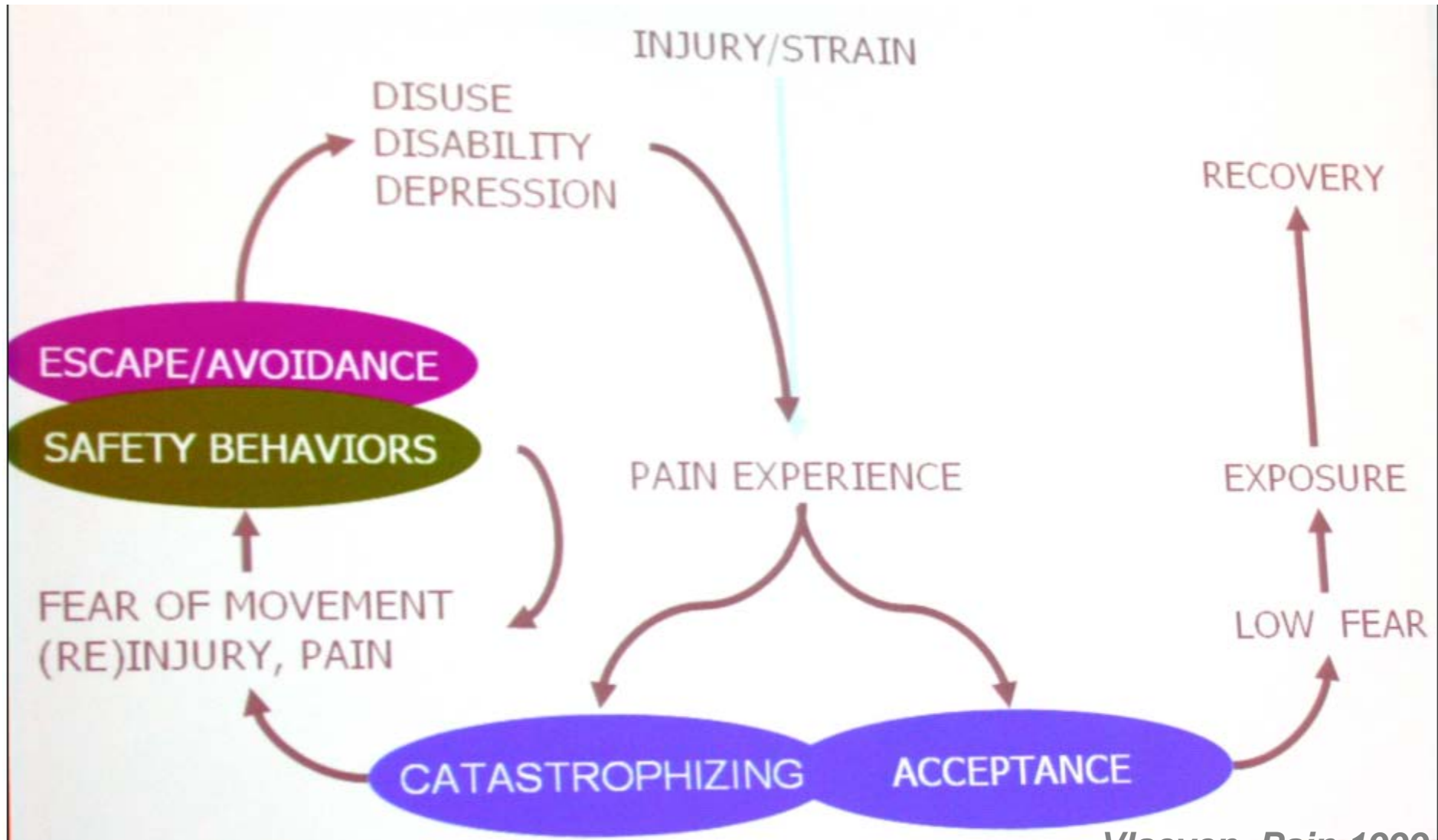
- 8 weekly, 2.30 hour session
- 5 - 8 patients
- Education, CBT and physical exercises

### - Outcome measures :

Satisfaction, PGIC, VAS pain, Dallas Pain Q, Hamilton scale, FABQ, Coping Strategy Q

# What about our patients ?

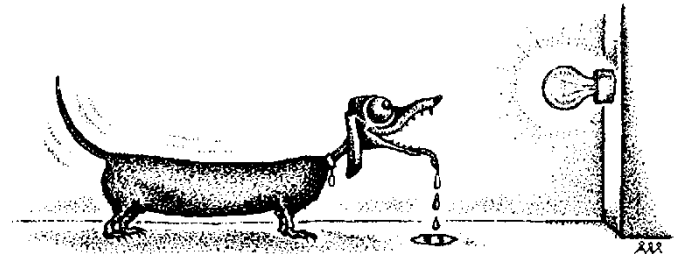
## Distress and fear - Fear avoidance model



# What about our patients ?

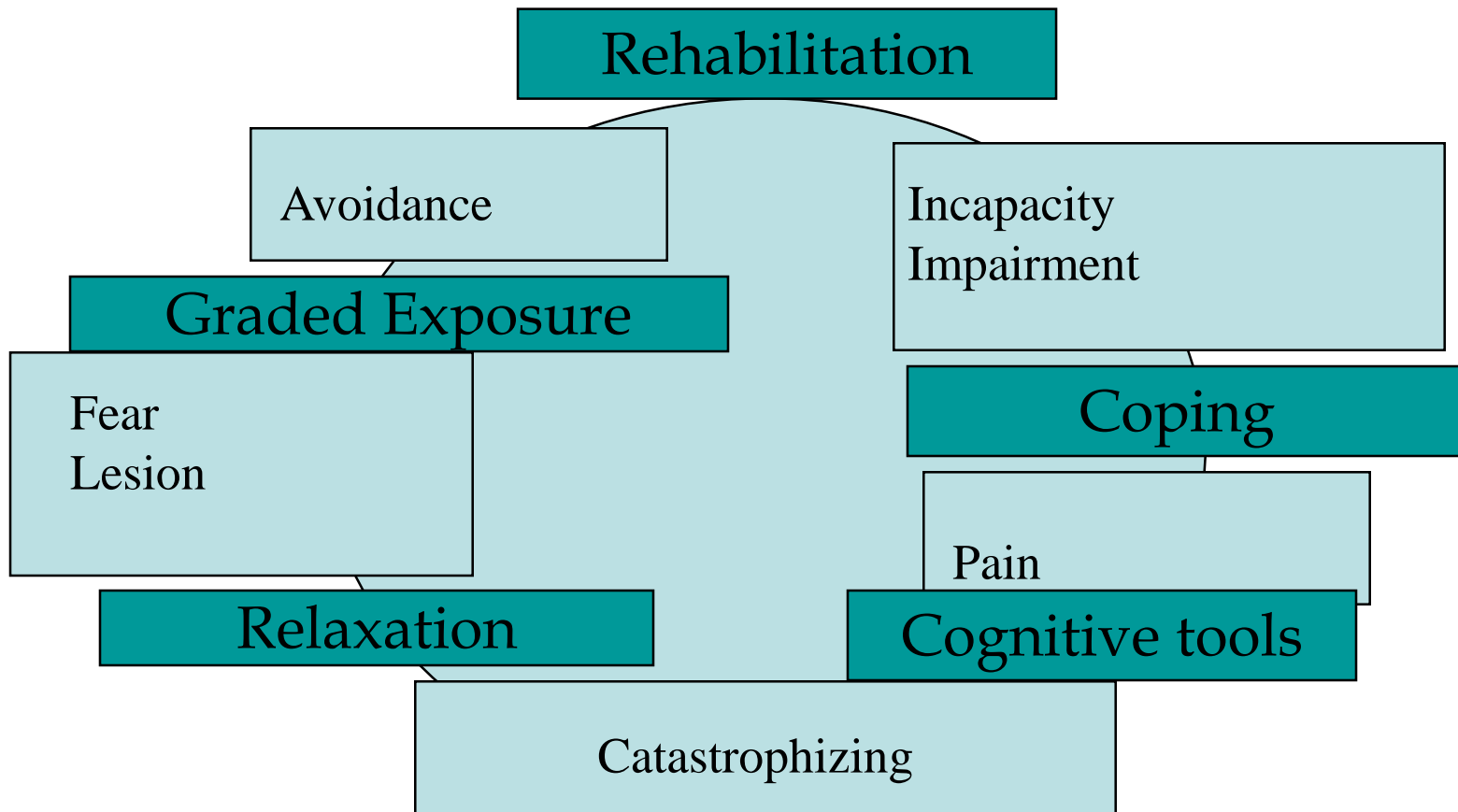
## Maladaptative behaviors

- **BOTH** : patients and health care providers
- **ON** : Physical activities and work



# Psycho-education for chronic low back pain

## Targeting therapy



# Psycho-education for chronic low back pain

## Operant therapy and Graded activity

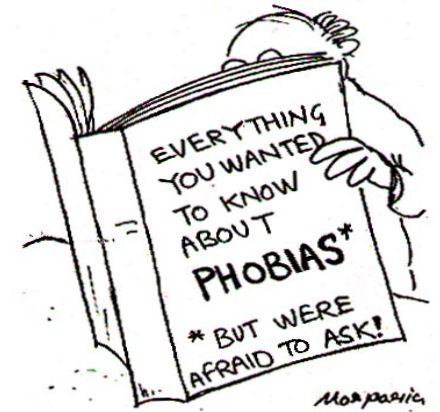
- **Objectives** : decrease fear and avoidance
- **Therapy** : in vivo exposure - activity
  - Establishing functional goals
  - Fear hierarchy
  - Problem solving
  - Behavioral experiments



# Psycho-education for chronic low back pain

## Sharing experience and relaxation

- **Objectives** : decrease hypervigilance and anxiety
- **Therapy** :
  - Beck columns (pain situation → cognitions → emotions → behaviour)
  - Acceptance
  - Self efficacy (learned helplessness)
  - Distraction
  - Optimism - life objectives



# National Health Politics psycho-education

- HAS national psycho-education guidelines since 2007
- ARS agreement since 2010
- ARS national follow-up (each 1 and 4 years)



**POUR UNE POLITIQUE  
NATIONALE D'ÉDUCATION  
THERAPEUTIQUE DU PATIENT**

*Haute Autorité de Santé, 2007*



# French Guidelines Psycho-education



HAUTE AUTORITÉ DE SANTÉ

RECOMMANDATIONS

## Éducation thérapeutique du patient Comment la proposer et la réaliser ?

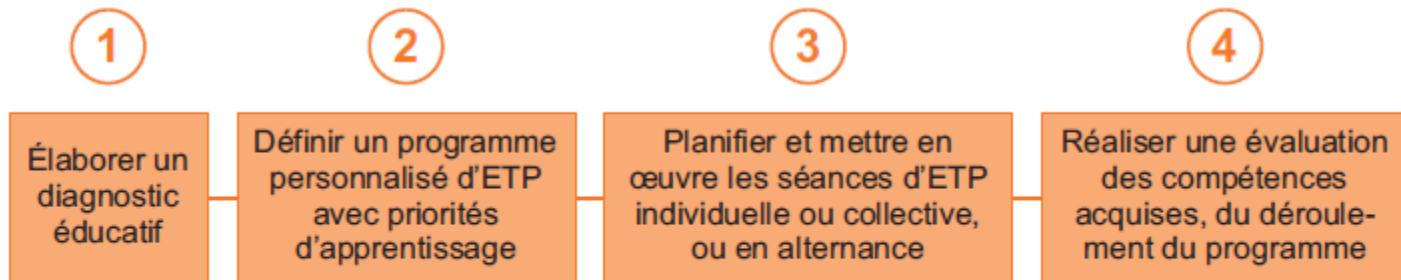
Juin 2007

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# French Guidelines Psycho-education

## COMMENT RÉALISER L'ETP, DÈS L'ACCORD DU PATIENT ?

La démarche d'ETP se planifie en 4 étapes.



# Program agreement and follow-up Psycho-education



**AGENCE REGIONALE DE SANTE D'ILE-DE-FRANCE**

**DECISION N°ETP/10/278-R**

**LE DIRECTEUR GENERAL DE L'AGENCE REGIONALE DE SANTE D'ILE-DE-FRANCE**

- VU le code de la santé publique, et notamment les articles L. 1161-1, L. 1161-2, L. 1161-4, L. 1162-1 ;
- VU les décrets n° 2010-336 du 31 mars 2010 et du 1<sup>er</sup> avril 2010 portant création des agences régionales de santé et portant nomination des directeurs généraux des agences régionales de santé ;
- VU les décrets n° 2010-904 et n° 2010-906 du 2 août 2010 relatifs aux conditions d'autorisation des programmes d'éducation thérapeutique du patient et aux compétences requises pour dispenser l'éducation thérapeutique du patient ;

# From real life to cost-utility...

## Cost-effectiveness recommendations

- 26 RCT - for non specific low back pain
- NICE threshold (but no consensus)
- Results - cost-effectiveness for CLBP :
  - interdisciplinary rehabilitation
  - exercise
  - cognitive-behavioural therapy
- Limitations :
  - incomplete identification and measurement of costs
  - too short follow-up periods

# From real life to cost-utility... recommendations

Study	Comparative treatments	Results of economic evaluation
Hollinghurst, BMJ 2008	GP care + exercise + behavioral counselling	Pain free days = 9 2,847 per QALY gained
Lamb, Lancet 2010	CBP + advice	1,786 per QALY gained
Johnson, Spine 2007	Exercise + CBT	5,000 per QALY gained
UK Beam trial team, BMJ 2004	GP care + exercises	8,300 per QALY gained

# From real life to cost-utility...

## patients intervention

- French data, 1 year follow-up
- N = 132 LBP, randomized, parallel group
  - N = 68, functional restoration program
  - N = 64, active individual therapy
- Results
  - Pain intensity, flexibility, muscle endurance, Dallas daily activities for work - leisure scores
  - Decrease number of sick-leave days : 37,3 versus 72 (p=0,042)



# From real life to cost-utility...

## primary care intervention

- Randomised, controlled, 12 month-study
- n = 701, CLBP
  - Usual care (n = 233)
  - Usual care + 6 CBT sessions (n= 468)
- Evaluation
  - Handicap de Roland Morris, Von Korff
  - SF12, FABQ, Pain Self Efficacy Scale
- Results
  - 85 % patients at 1 year
  - Usual care + 6 CBT sessions : more effective
  - Supplemental costs on QALY = £ 1786  
(cost – effectiveness probability > 90 % - threshold £ 3000)

*Lamb, Lancet 2010*

# From real life to cost-utility...

## cost-utility of cognitive behavioral therapy

- Persistent non specific low back pain
- Validated Markov intention-to-treat model to estimate the cost-utility of CBT with Sensitivity analyses assessed the distribution of service utilization, utility values, and rate of LBP recurrence
- Based on 5000 iterations of each model and expressed as an incremental cost per quality-adjusted life-year
- Results :
  - incremental cost-utility of CBT = \$7197 per quality-adjusted life-year in the 1st year
  - Incremental cost-utility of CBT = \$5855 per quality-adjusted life-year over 10 years



# Psychoeducation and chronic low back pain

**Linton S.** The effects of CBT and physical preventive interventions on pain related sick leave. Clin J Pain 2005

**Lambeek L.** Randomised controlled trial of integrated care to reduce disability from chronic low back pain in working and private life. BMJ 2010

**Henschke N.** Behavioural treatment for chronic low-back pain (Review). The Cochrane Library 2011

**Lamb S.** CBT groups for LBP in primary care, Lancet 2010

**Roche-Leboucher G.** Multidisciplinary intensive functional restoration versus outpatient active physiotherapy in CLBP. Spine 2011

**Vlaeyen J.** Cognitive-behavioural treatments for chronic pain: what works for whom? Clin J Pain 2005