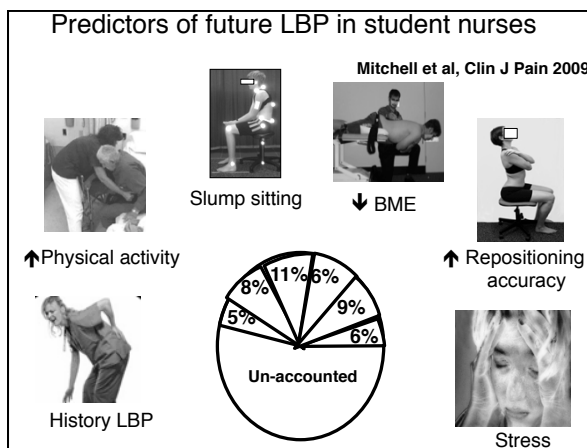
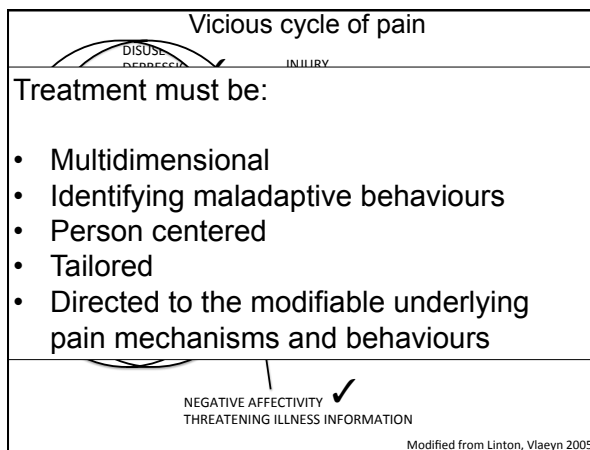
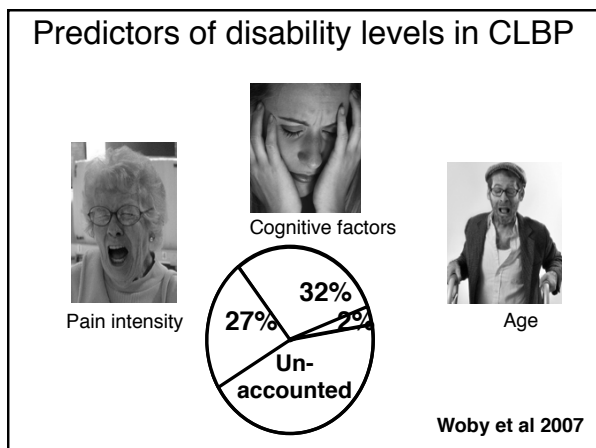


Current evidence for management of NSCLBP

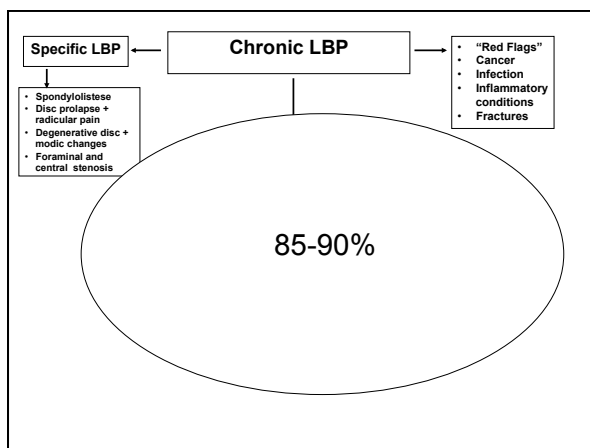
- Spinal manipulative therapy Rubinstein et al 2011 Cochrane review
- No intervention is superior
- Minimal change in pain
- Cognitive behavioural treatment Henschke et al 2010 Cochrane review

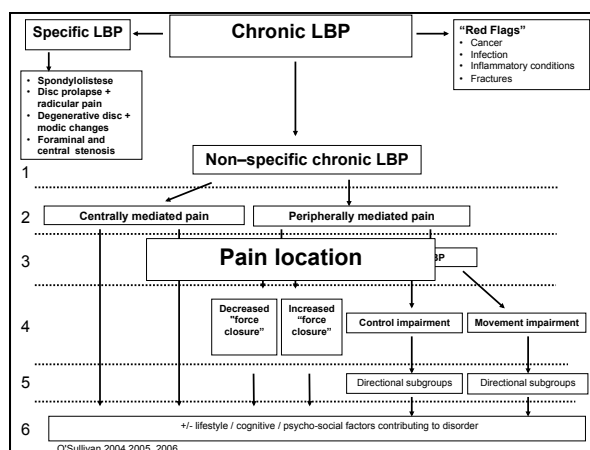
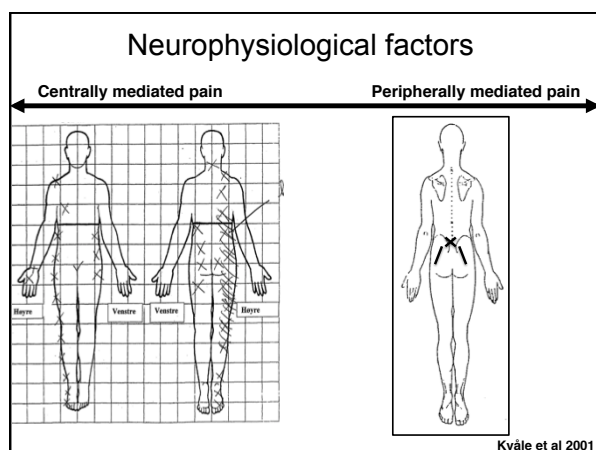
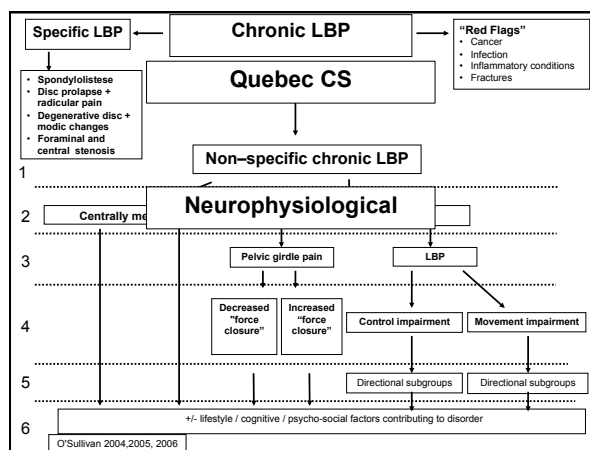
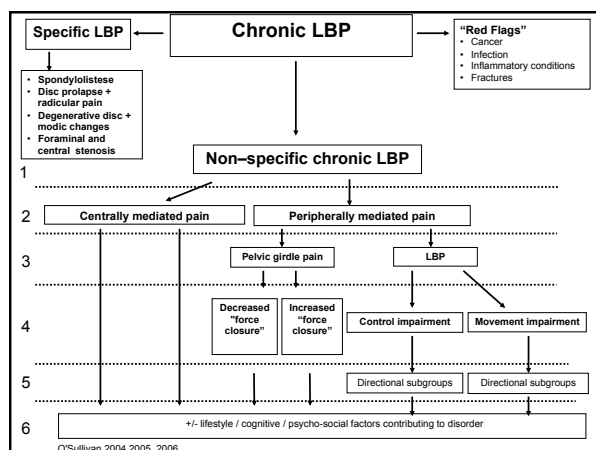




2

Multidimensional classification



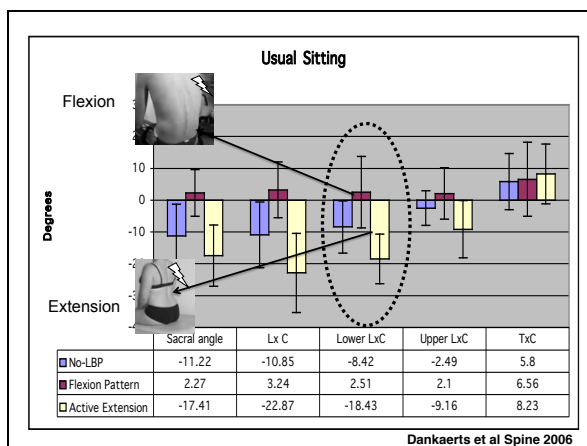
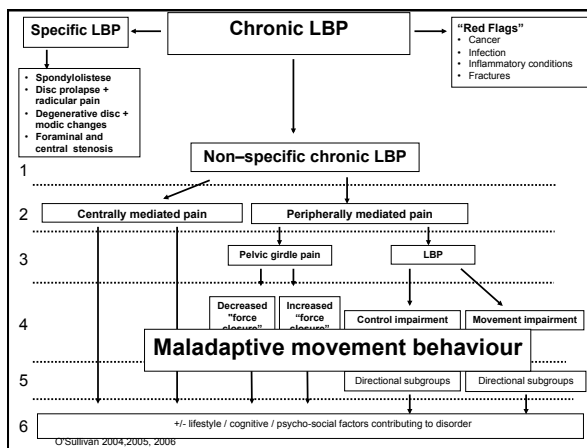


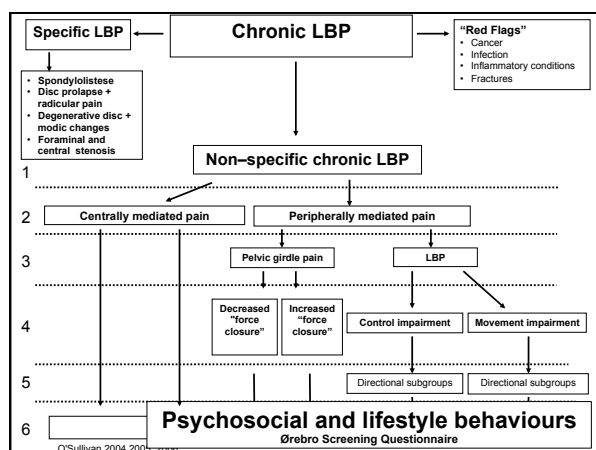
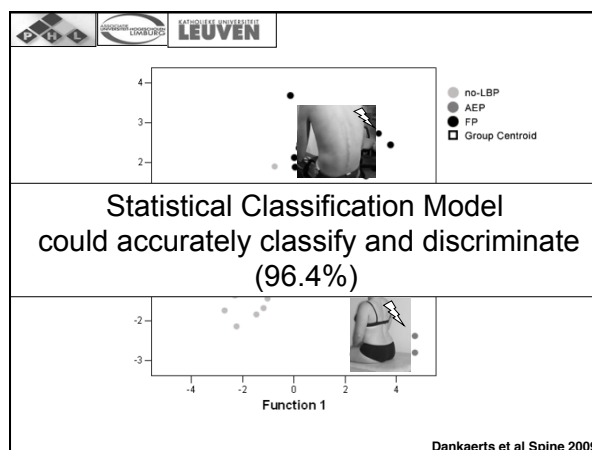
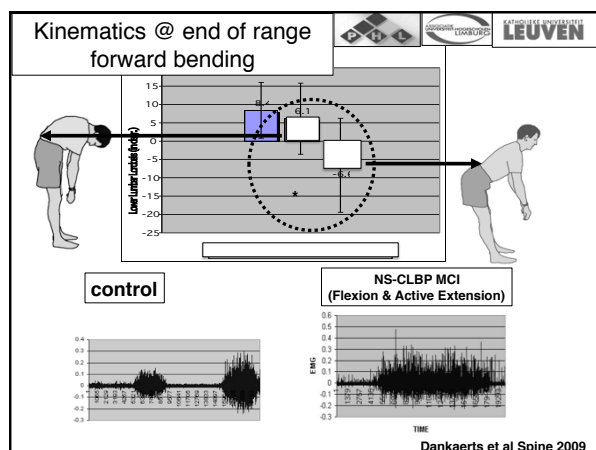
Pain location

Pelvic girdle

Low back

Laslett 1997, Laslett and Williams 1994,
 Laslett et al 2003
 Mens et al 1997, 1999, 2001, 2002
 Philips and Twomey 1996

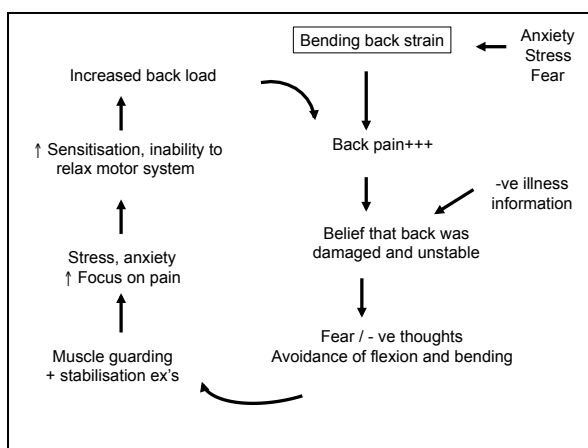
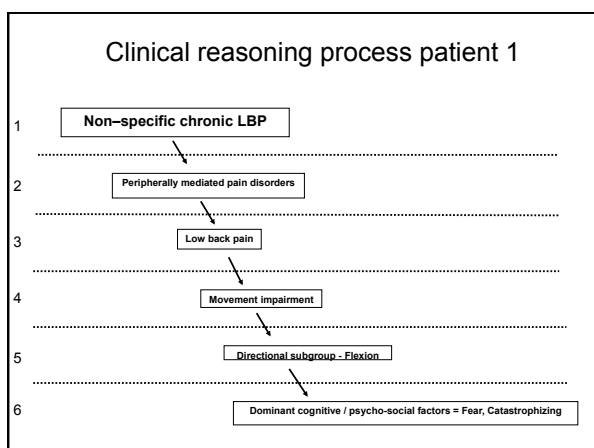
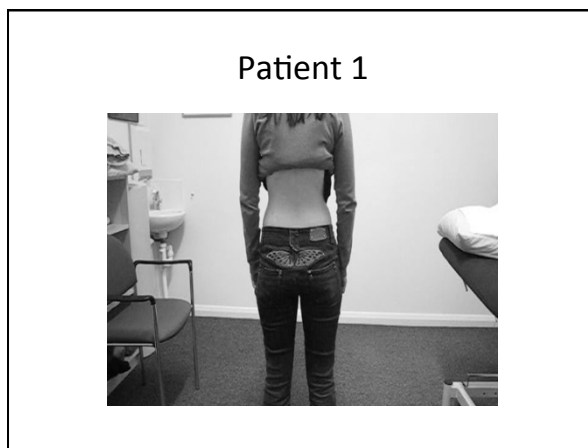
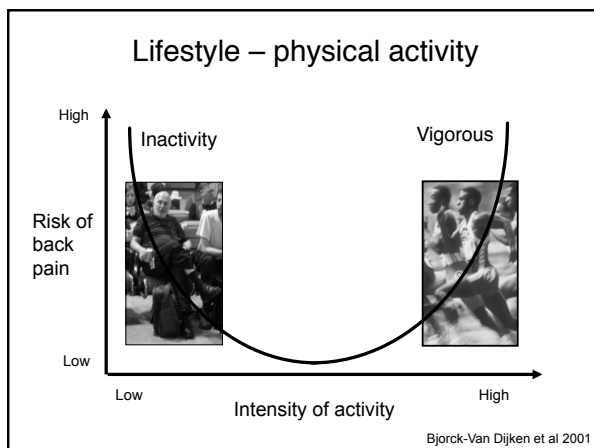


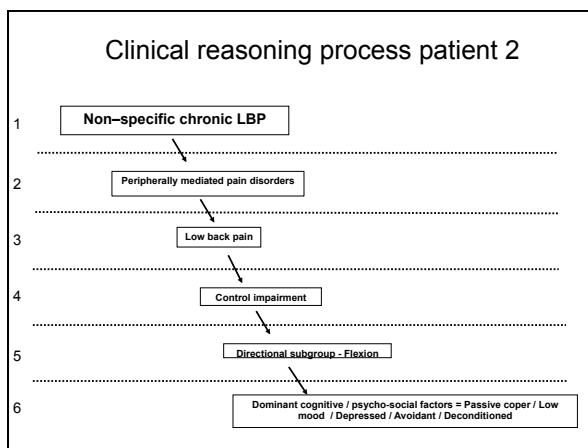
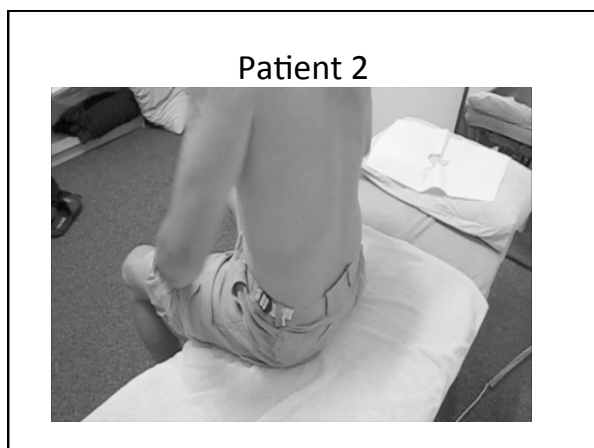
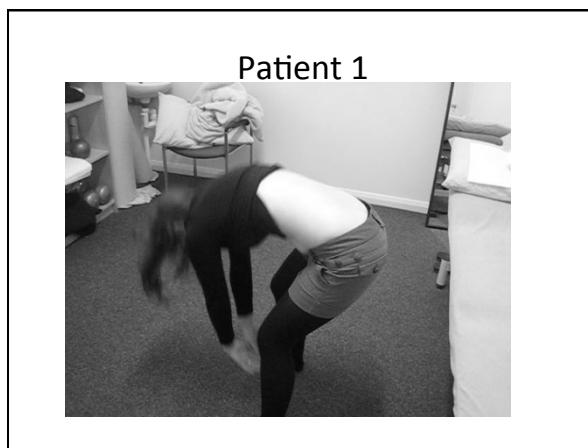
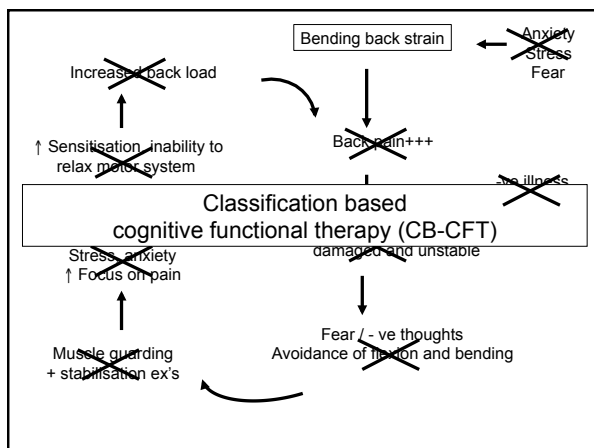


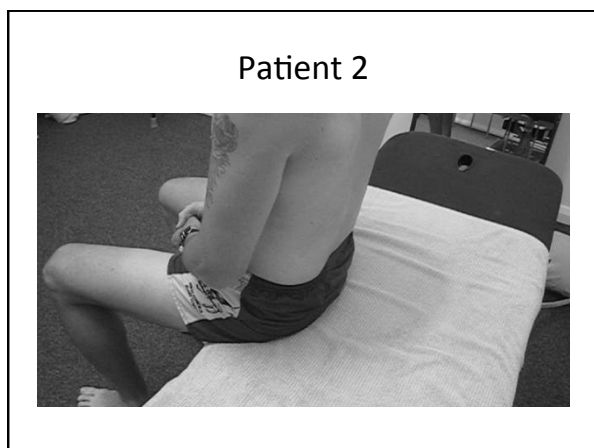
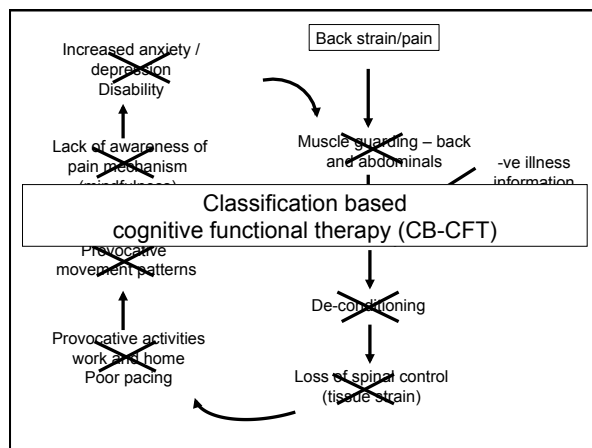
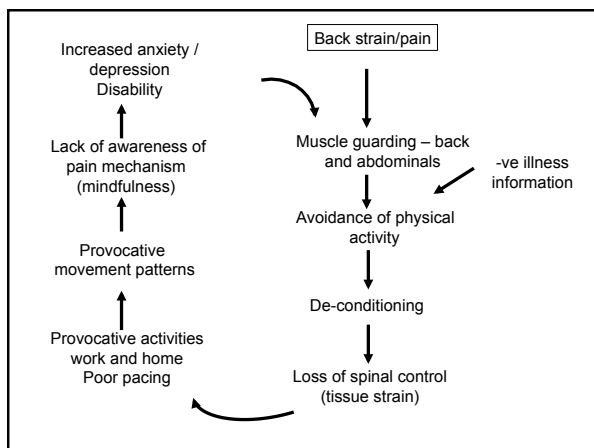
Psycho-social factors (Linton 2000)

Influences pain and maladaptive behaviors....

Cognitive: hyper-vigilance, catastrophizing, negative beliefs, LOC
Emotional: stress, fear, anxiety, depression, anger
Behavioural: avoidance & pain behaviour, poor coping & pacing
Social factors: socio-economic status, family functioning, cultural
Work related factors: level of support, satisfaction, compensation

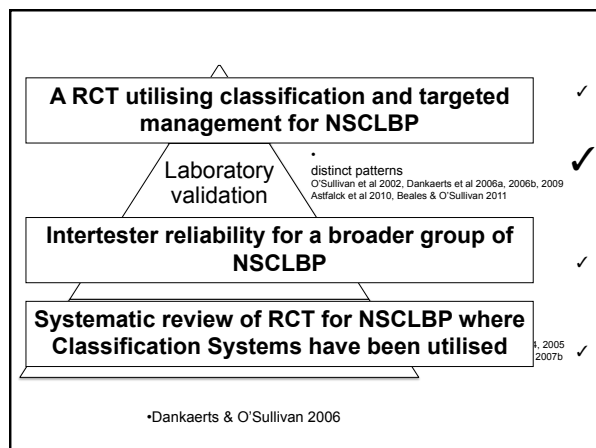






3

Evidence for MDC



Paper I

Fersum K, Dankkaerts W, O'Sullivan P, Maes J, Skouen JS, Bjordal JM, Kvåle A.

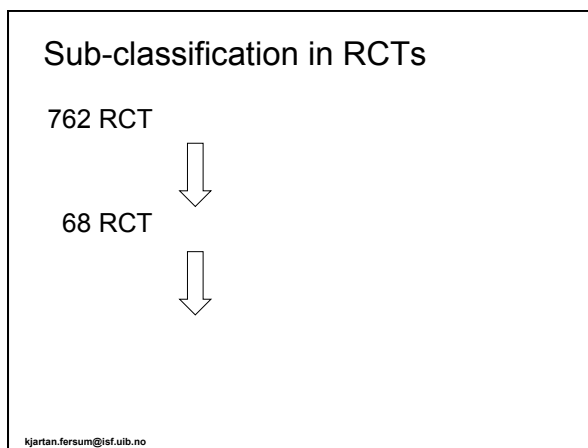
Integration of sub-classification strategies in RCTs evaluating manual therapy treatment and exercise therapy for non-specific chronic low back pain (NSCLBP): a systematic review.

British Journal of Sports Medicine 2010; 44:1054-1062.

PLUS Stretching RCT
 Health economics in sports medicine
 How do orthotics work?

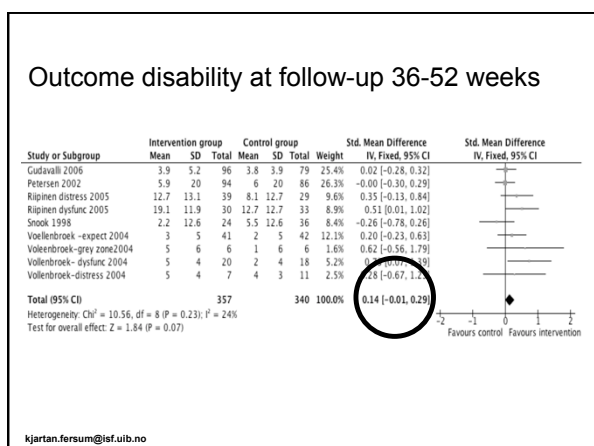
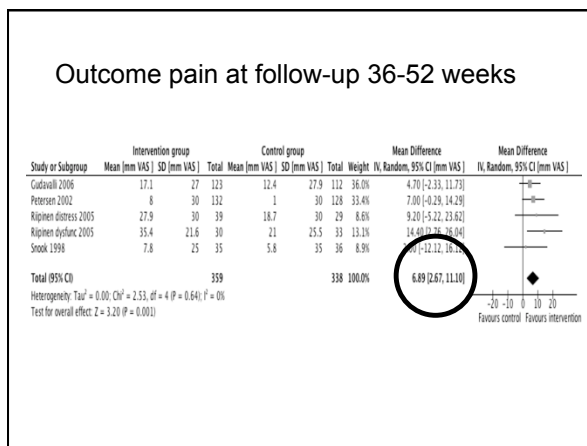
BASEM
 bjsm.bmj.com
 BMJ Journals

- Study aims paper I**
- Review the literature of non-specific chronic low back pain (NSCLBP)
 - Level of integration of sub-classification in RCTs
 - Summarize effect of studies using classification and targeted treatment



Studies utilising sub-classification

Author	Description	Biopsych model	Validated NSCLBP	Reliable	Intervention matched
Gudavalli M.R. et al. 2006 (N=235)	Severity Stage				✓
Riipinen M. et al. 2005 (N=204)	Multidimensional Pain Inventory	✓		✓	
Vollenbroek-Hutten M.M.R. et al. 2004 (N=142)	Multidimensional Pain Inventory	✓		✓	
Petersen T. et al. 2002 (N= 260)	McKenzie based			✓	✓
Snook et al. 1998 (N=85)	Age Gender Pain location Psych	✓			✓

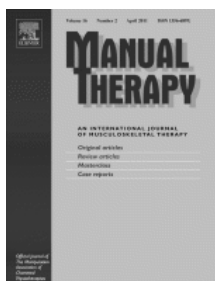


kjartan.fersum@isf.uib.no

Summary paper I

- Limited to non-existing classification system approaches
- Suggest use of valid and reliable classification systems within a biopsychosocial construct

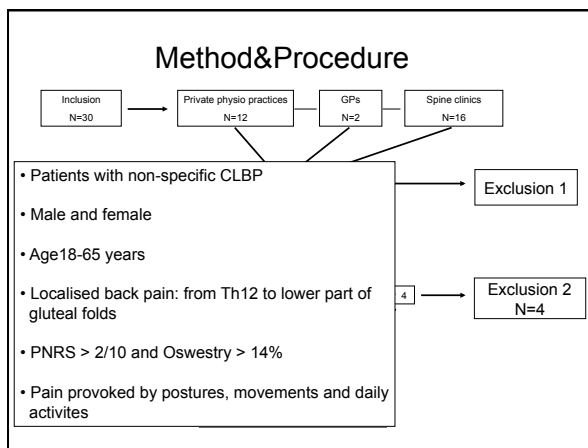
Paper II



Fersum K, O'Sullivan P, Kvåle A, Skouen JS.

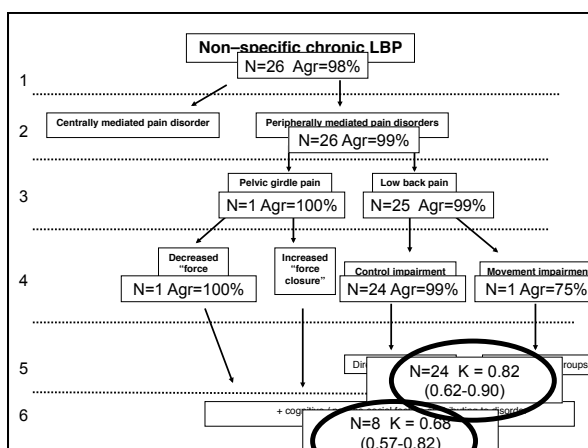
The inter-examiner reliability of a classification system for patients with non-specific low back pain.

Manual Therapy 2009;14:555-561.



Sample characteristics paper II

- Number of patients 26
- Female/Male 11/15
- Mean age 32 years
- Mean pain intensity 6/10
- Mean pain duration 5 years
- Mean Oswestry (function) 21.2
- Mean HSCL (well being) 1.53



Summary paper II

- Physiotherapists can reliably classify a broader group of NSCLBP
- ↑ classification training = ↑ reliability
- Psycho-social factors can be reliably identified by physiotherapists
- ↑ clinical validation of the O'Sullivan Classification System (OCS)

Paper III

Efficacy of classification based 'cognitive functional physiotherapy' in patients with Non Specific Chronic Low Back Pain (NSCLBP) – A randomised controlled trial

Kjartan Vibe Fersum, Peter O'Sullivan, Jan Sture Skouen, Anne Smith and Alice Kvåle

Submitted

UNIVERSITY OF BERGEN

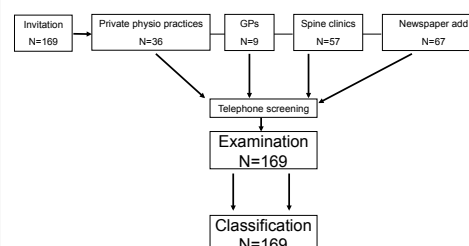


Curtin
University of Technology
Western Australia

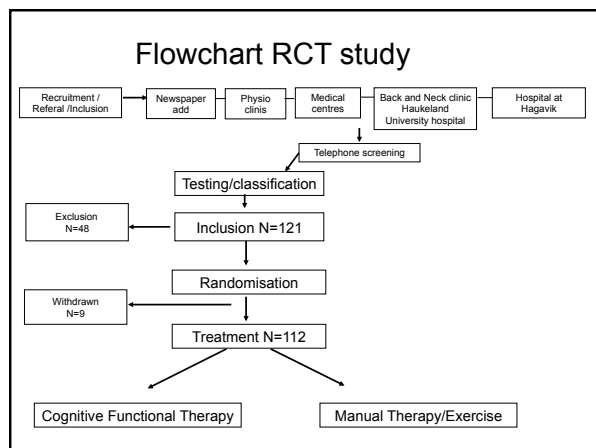
Study aim paper III

- Assess efficacy of classification based cognitive functional therapy for NSCLBP compared to manual therapy and exercise

Study sample

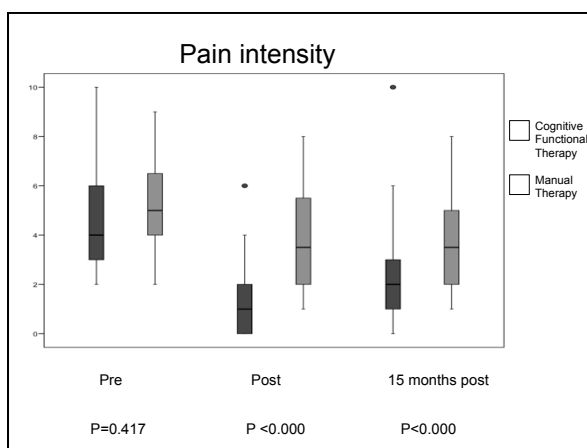
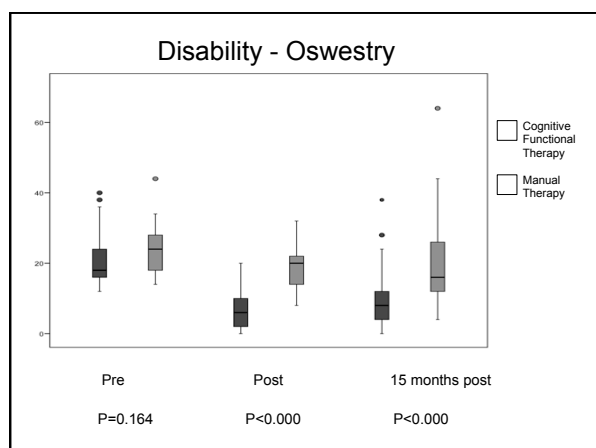


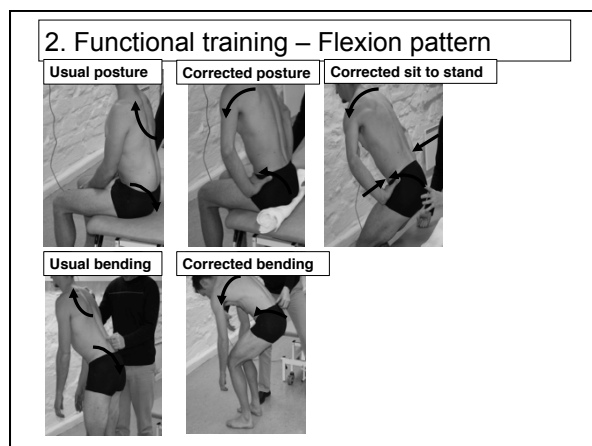
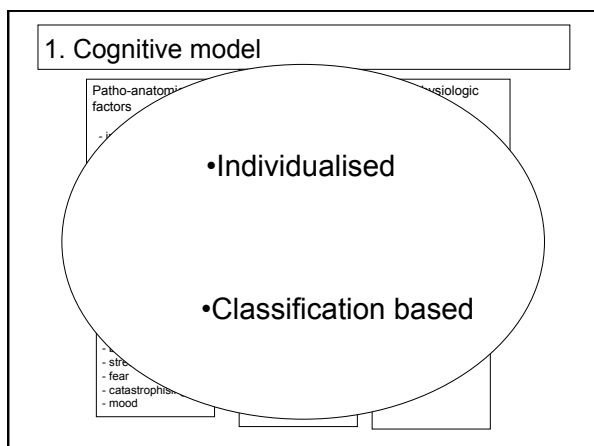
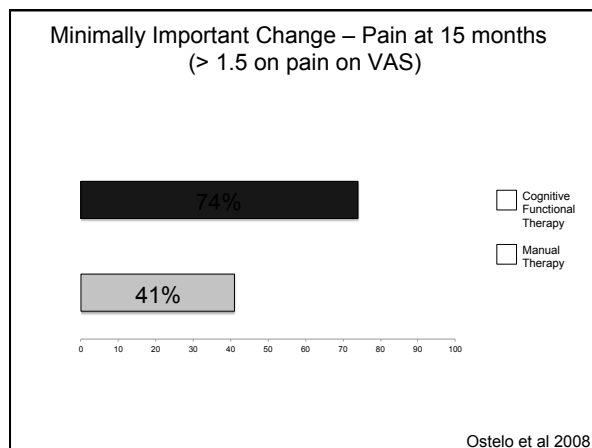
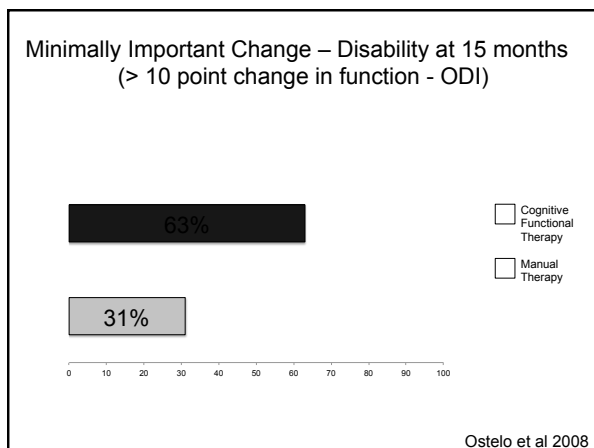
kjartan.fersum@isf.uib.no



Interventions RCT

Cognitive Functional Therapy	Manual Therapy / Exercise
<ul style="list-style-type: none"> • 2 manual therapists and 1 physiotherapist • Cognitive behavioural principles • CFT individualized according to classification <ol style="list-style-type: none"> 1. Cognitive model 2. Specific movement based exercise 3. Functional integration 4. Cardiovascular fitness 	<ul style="list-style-type: none"> • 3 experienced manual therapists • Cognitive behavioural principles • Individualised treatment from the therapists clinical decision included: <ul style="list-style-type: none"> - - -
<ul style="list-style-type: none"> • Treatments (mean-SD): 7.7 (2.7) 	<ul style="list-style-type: none"> • Treatments (mean-SD): 7.7 (3.1)





2. Specific exercises – Active extension

Usual posture

Corrected posture

Usual sit to stand

Corrected sit to stand

Corrected bending

3. Functional integration

4. Cardiovascular exercise

Flexion pattern

Extension pattern

