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## **Psychosocial risk factors for transition from acute to chronic low back pain in primary care. A systematic review**

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## BACKGROUND

Low back pain (LBP) = Public health problem

Low back pain in primary care (PC) :

- LBP = a frequent reason for seeking care
- PC = a preferential setting to **observe the transition from acute to chronic LBP**

What are the decisive factors for this transition ?

- traditional medical & biomechanical factors
- **psychosocial factors**, more recently studied



## OBJECTIVE

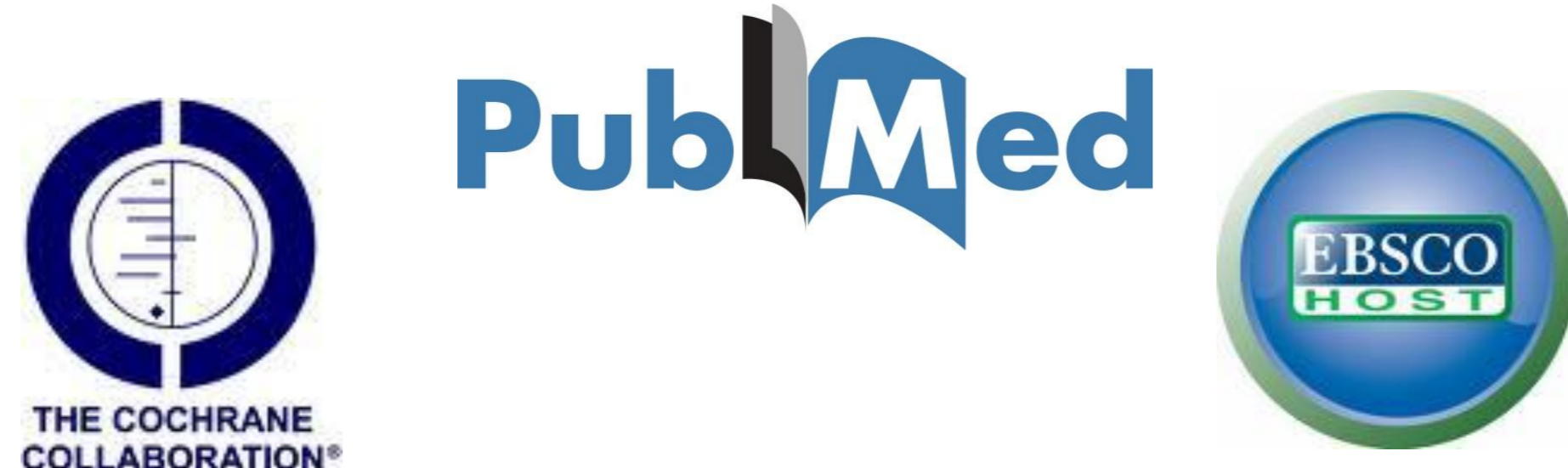
To review the psychosocial factors identified as risk factors for transition from acute to chronic low back pain in primary care settings.

## METHODS

### IDENTIFICATION & SELECTION OF THE LITERATURE

Systematic search for literature published until December 2009 (English / French), in 3 databases :

- Medline via Pubmed
- the Cochrane Library
- PsycINFO via EBSCO



#### Criteria for articles to be included :

- Original prospective cohort study
- Primary care settings (from the European definition of general practice<sup>1</sup> : open access care providers, first medical contact, unselected health problems )
- Adults with non specific LBP lasting for < 3 months at baseline
- follow-up of the cohort ≥ 3 months
- « patient-centered » outcome criteria : pain, disability, social participation (incl. work participation), global satisfaction

#### Exclusion criteria :

- Secondary analyses of randomized controlled trials

### ASSESSMENT OF THE METHODOLOGICAL QUALITY

Criteria derived from the Cochrane Collaboration Back Review Group for Spinal Disorders<sup>2</sup> and from the French Health Agency<sup>3</sup>

quality of description of the patient inclusion criteria ; validity and reproducibility of the scales used to assess psychosocial factors at inclusion / outcome criteria ; quality of statistical analyses (incl. adjustment for confounding factors) ; cohorts size ; study duration ; drop out rate

--> Total score allocated to each article (max. 20 points)

**2 reviewers independently assessed the methodological quality of the articles included**

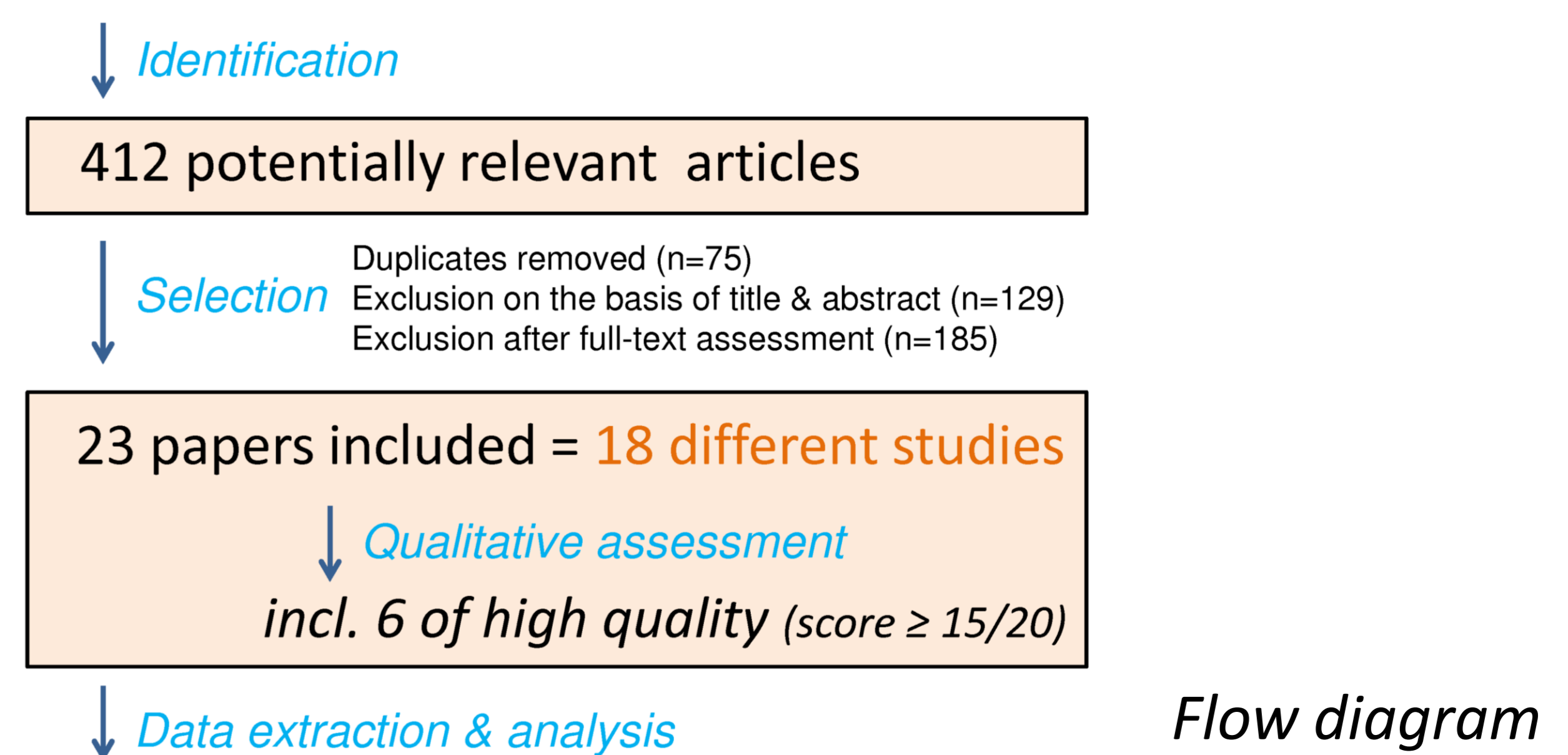
**Papers scoring ≥ 15 were considered as « high-quality papers »**

### DATA EXTRACTION & ANALYSIS

Several articles related to the same cohort = considered together (score allocated = mean of the scores of each paper)

## RESULTS

### IDENTIFICATION, SELECTION & QUALITATIVE ASSESSMENT



### DATA EXTRACTION & ANALYSIS (Tables 1 and 2).

Table 1 : Factors often found not to be associated with outcome

(number of studies concluding a significant association between psychosocial factors & outcome)

FACTORS STUDIED	ASSOCIATION ?		
	HIGH QUALITY	OTHER STUDIES	
Socio-économique classification, educational level, civil status (married or not), job satisfaction	1/5	1/6	Often univariate strong associations, but no more association in multivariate analyses
Social support	0/1	0/2	
Anxiety	0/2	0/1	Lack of data for firm conclusion
Pain control	0/2	0/1	

Table 2 : Factors sometimes / often found to be associated with outcome

(number of studies concluding a significant association between psychosocial factors & outcome)

FACTORS STUDIED	ASSOCIATION ?		
	HIGH QUALITY	OTHER STUDIES	
Depression	1/2	1/4	
Fear-avoidance beliefs	1/1	2/6	explained only a low fraction of the variability observed in the cohort
Passive coping strategies	1/1	1/3	
Low self-perceived general health	1/1	2/4	Likely biases, making interpretation tricky
Compensation issues	2/3	1/3	
<b>Patient's or care provider's initial expectations of recovery</b>	<b>2/2<sup>4,5</sup></b>	<b>1/2</b>	<b>Strong &amp; independent prognostic factor</b>

## DISCUSSION / CONCLUSION

Strengths = focus on primary care ; rigorous review process

Limitations = only quantitative data; few databases screened

### Main results & implications for future research ?

- 1) Most factors not found as linked as expected → Inadequate **scales** to assess them ? Inadequate **statistical models** used ?
- 2) Patient's / care provider's initial expectations ≈ unexpected → should be **explored with qualitative approach** ?

<sup>1</sup> WoncaNews, Volume 31, Number 3, June 2005

<sup>2</sup> Van Tulder MW et al, Method guidelines for systematic reviews in the Cochrane Collaboration Back Review Group for Spinal Disorders. Spine 1997; 22: 2323-30

<sup>3</sup> ANAES. Guide d'analyse de la littérature et gradation des recommandations 2000.

<sup>4</sup> Henschke N et al, Prognosis in patients with recent onset low back pain In Australian primary care: inception cohort study. BMJ 2008; 337: a171

<sup>5</sup> Schiottz-Christensen B. et al, Log-term prognosis of acute low back pain in patients seen in general practice: a 1-year prospective follow-up study. Fam Pract 1999; 16: 223-32