

Psychosocial risk factors for transition from acute to chronic low back pain in primary care

A systematic review

The logo for LEEST, consisting of the word "LEEST" in a bold, black, sans-serif font.

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Family Practice 2010, in press

INTRODUCTION

- Low back pain « public health problem »
- LBP and primary care
 - Frequent reason for seeking care
 - Transition from acute to chronic LBP
- Decisive factors for chronicity ?
 - Traditional medical and biomechanical factors
 - Growing interest for psychosocial issues



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 of the literature



- Selection of the literature

- prospective original studies
- primary care (GP, physiotherapists, occupational P...)
- adults, non specific LBP < 3 months
- follow-up \geq 3 months
- « patient-centered outcome » : pain / disability / participation (work++) / global satisfaction
- **exclusion** : secondary analyses of RCT

METHODS

- Assessment of the methodological quality

7 criteria (Cochrane Back Review Group for spinal disorders + national guidelines)

Total score on 20 points : high quality if ≥ 15

Priority to **large cohorts and multivariate analyses** ++

2 independent reviewers

- Data extraction and analysis

Associations between psychosocial factors and outcomes

RESULTS



Identification

412 potential articles



Selection

23 papers included = 18 studies



Qualitative assessment

including 6 of high quality



Extraction of data

RESULTS

Factors often found not to be associated with outcome

| FACTORS STUDIED | Association ? | |
|---------------------------------------|---------------|---------------|
| | High quality | Other studies |
| Social and socio-occupational factors | 1/5 | 1/6 |

Most often only univariate association

| | | |
|----------------|-----|-----|
| Social support | 0/1 | 0/2 |
| Anxiety | 0/2 | 0/1 |
| Pain control | 0/2 | 0/1 |

Lack of data for firm conclusion

RESULTS

Factors often found to be linked to outcome

| FACTORS STUDIED | Association ? | |
|---------------------------|---------------|---------------|
| | High quality | Other studies |
| Depression | 1/2 | 1/4 |
| Fear-avoidance beliefs | 1/1 | 2/6 |
| Passive coping strategies | 1/1 | 1/3 |

Low fraction of explained variability...

| | | |
|------------------------------------------|-----|-----|
| Low self-perceived general health status | 1/1 | 2/4 |
| Compensation issues | 2/3 | 1/3 |

Interpretation ?

RESULTS

Factors often found to be linked to outcome

| FACTORS STUDIED | Association ? | |
|-------------------------------------------------------|--------------------|---------------|
| | High quality | Other studies |
| Patient's or care provider's expectations of recovery | 2/2 ^{a,b} | 1/2 |

Strong and independent predictive ability, even in multivariate models

^a Henschke N, et al. Prognosis in patients with recent onset low back pain in Australian primary care: inception cohort study. BMJ2008;337:a171.

^b Schiottz-Christensen B, et al. Long-term prognosis of acute low back pain in patients seen in general practice: a 1-year prospective follow-up study. Fam Pract1999 Jun;16(3):223-32.

DISCUSSION

- Strengths :
 - originality : **primary care**
 - PRISMA criteria (review process and its reporting)
- Limitations :
 - no meta-analysis (heterogeneity ++)
 - **only quantitative**
 - **3 major medical and psychological databases**
(did not address occupational physical factors...)

DISCUSSION

- Main results :

- Several factors = not as linked as expected
- **A somewhat unexpected factor = the initial prediction of the patient or the care provider**

- Hypotheses ?

- Inadequate assessment methods ? Need for qualitative approach ?
- Inadequate statistical models ?
- Need for new theoretical models for chronic LBP?

Thank you for your attention !

