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

A systematic review

A. Ramond\textsuperscript{1,2}, C. Bouton\textsuperscript{1,2}, I. Richard\textsuperscript{1}, Y. Roquelaure\textsuperscript{1}, J.F. Huez\textsuperscript{2}

\textsuperscript{1} Laboratoire d'Ergonomie et d'Epidémiologie en Santé au Travail, université d'Angers
\textsuperscript{2} Département de médecine générale, université d'Angers

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

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OBJECTIVE

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

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METHODS

• Identification of the literature
  - PubMed
  - Cochrane Collaboration
  - EBSCO

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

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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

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RESULTS

Identification

412 potential articles

Selection

23 papers included = 18 studies

Qualitative assessment

including 6 of high quality

Extraction of data

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# RESULTS

Factors often found not to be associated with outcome

<table>
<thead>
<tr>
<th>FACTORS STUDIED</th>
<th>Association ?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social and socio-occupational factors</td>
<td>1/5 1/6</td>
</tr>
<tr>
<td>Social support</td>
<td>0/1 0/2</td>
</tr>
<tr>
<td>Anxiety</td>
<td>0/2 0/1</td>
</tr>
<tr>
<td>Pain control</td>
<td>0/2 0/1</td>
</tr>
</tbody>
</table>

Most often only univariate association

Lack of data for firm conclusion

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RESULTS

Factors often found to be linked to outcome

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<th>FACTORS STUDIED</th>
<th>Association ?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>High quality</td>
</tr>
<tr>
<td>Depression</td>
<td>1/2</td>
</tr>
<tr>
<td>Fear-avoidance beliefs</td>
<td>1/1</td>
</tr>
<tr>
<td>Passive coping strategies</td>
<td>1/1</td>
</tr>
<tr>
<td>Low self-perceived general health status</td>
<td>1/1</td>
</tr>
<tr>
<td>Compensation issues</td>
<td>2/3</td>
</tr>
</tbody>
</table>

Low fraction of explained variability...

Interpretation?

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<tr>
<td>Patient’s or care provider’s expectations of recovery</td>
<td>2/2&lt;sup&gt;a,b&lt;/sup&gt;</td>
</tr>
</tbody>
</table>

Strong and independent predictive ability, even in multivariate models


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...)

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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!