Mindfulness and Chronic Pain: It works!
High quality Randomized Controlled Trial conducted in standard hospital settings
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Within general chronic pain conditions, Mindfulness meditation is widely used, but also poorly investigated under controlled research settings. This study presents the first data from a high quality (Veehof/Jadad/Cochrane quality criteria), large sample, RCT study of general chronic pain patients in standard hospital settings.

<table>
<thead>
<tr>
<th>Differences in scores</th>
<th>Control (N = 30)</th>
<th>Treatment (N = 63)</th>
<th>Follow-up 6 m. (N = 27)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy, SF36</td>
<td>-.48 (SD 3.0)</td>
<td>-2.30* (SD 4.19)</td>
<td>-.24 (SD 4.40)</td>
</tr>
<tr>
<td>Depression, HADS</td>
<td>.30 (SD 2.4)</td>
<td>1.70 * (SD 3.3)</td>
<td>.60 (SD 4.0)</td>
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<tr>
<td>Anxiety, HADS</td>
<td>-.33 (SD 2.4)</td>
<td>1.77 ** (SD 3.6)</td>
<td>.70 (SD 4.2)</td>
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<tr>
<td>Average Pain, BPI</td>
<td>.65 (SD 1.6)</td>
<td>.30 (SD 1.9)</td>
<td>.17 (SD 2.7)</td>
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<tr>
<td>Pain Acceptance (PAQ)</td>
<td>.41 (SD 5.8)</td>
<td>-2.0 (SD 8.9)</td>
<td>-2.8 (SD 7.9)</td>
</tr>
</tbody>
</table>

Sample
N = 63.
Gender: 9 % men. Mean age: 48.5 (SD 12.1).
Years of opioid use, mean: 5.2 (SD 5.6).
Married: 72%.
Still working: 34 %, average 21 hours/week

Methods
Control group:
Waiting list

Intervention:
Mindfulness meditation, standard program.
Highly trained, professional instructors.
8 times 2½ hour, 1 times 4½ hour lessons.

Questionnaires:
- Health oriented life quality (SF36)
- Hospital Anxiety and Depression Scale (HADS)
- Brief Pain Inventory (BPI)
- Coping Strategies Questionnaire
- Pain acceptance questionnaire
- Self reported changes

The study
This is the first results from a study investigating a high quality mindfulness meditation intervention based in a hospital multidisciplinary pain center. The study are designed to include 90 patients and data collection will be finished in spring 2012. Qualitative data analysis and follow-up analysis concerning “what-works-for-whom” investigations will follow. The purpose will be development of rational allocation principles of patients to the intervention.

Quality measures
(Veehof/Cochrane/validated Jadad quality criteria)
- Randomization accounted for
- Randomization method appropriate
- Drop-out analysis
- Intention to treat-analysis
- High training/continuing supervision of instructors
- Pain diagnosed by pain experts
- Sample bigger than 50
- Sufficient statistical power

Perspectives
Mindfulness meditation intervention resulted in significantly higher levels of energy and lower levels of depression and anxiety measured with validated scales in this high quality RCT. Collaborating with dedicated, highly trained instructors, the intervention is feasible at ordinary hospital settings.
The project’s next stage will focus on stabilizing/optimizing the results over time.

Peter la Cour has worked with pain acceptance for some years. His main research interests are the links between existential orientations and health.

Marian C. Petersen is a doctoral student working with sleep disturbances. Besides the mindfulness studies she has recently started research regarding sleep and chronic pain.

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