Acceptance and Commitment Therapy and Cognitive Behavioral Therapy for Chronic Pain

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“For after all, the best thing one can do when it’s raining is to let it rain.”

- Henry Wadsworth Longfellow
Behavioral treatment models
Behavioral treatment models

Physical Sensations → Pain
Thoughts → Pain
Feelings → Pain
Behaviors → Pain
Behavioral treatment models

Control (CBT, self-mgt)

Acceptance (ACT)

↑Interference

↓Quality of Life

↓Activity

PAIN

↑Interference

Physical Sensations

Thoughts

Feelings

Behaviors
Limitations of efforts to control or manage pain

- Usually based on the notion that elimination of pain is possible
- Often don’t work
- May make problem worse
- May have unacceptable short- or long-term costs
- May result in losing touch with what matters
ACT in action

- “Creative hopelessness” – challenging the standard change agenda
- Willingness – letting go of the struggle
- Separating self from thoughts, feelings, sensations, memories
- Mindfulness – nonjudgmental awareness
- Values – what matters?
- Committed action – just do it!
- Metaphors and exercises

Hayes et al., 1999; Hayes & Smith, 2005
Study design

- Inclusion: chronic, nonterminal pain ≥ 6 months, severity ≥ 5/10, interference ≥ 5/10
- Evaluated by M.D. with medical record review
- 4-6 weeks treatment as usual followed by randomization to 8 group sessions of ACT or CBT
- Pain treatments kept constant throughout study
- Primary outcome:
  - Pain interference (BPI-Short Form)
- Secondary outcomes:
  - Mental and physical health-related quality of life (SF-12)
  - Activity (MPI)
  - Depression (BDI)
  - Pain-related anxiety (PASS-20)
  - Satisfaction (CSQ)
Screened: 129
Randomized: 114
Allocated to ACT: 57
Allocated to CBT: 57
4-6 week TAU
Started ACT: 49 (86%)
Completed ACT: 43 (88%)

Started CBT: 50 (88%)
Completed CBT: 42 (84%)

Excluded: 6
Declined: 9
Screened: 129

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Demographics

- 51% women
- Mean age 55 years
- 68% Caucasian
- 47% disabled, 30% working
- 41% receiving pain-related compensation
- 38% with annual income < $20K
Clinical variables

- Mean pain duration: 15 years
- Etiology:
  - 33% osteoarthritis
  - 31% neuropathic pain
  - 29% degenerative disc disease
- Location:
  - 80% lower extremity
  - 79% low back
  - 67% upper extremity
- 28% major depression, 17% PTSD
Treatments

Current pain medications:
- 41% narcotics
- 54% NSAIDs
- 19% muscle relaxants
- 53% psychotropics

Total number of medications:
- 38% 6-10
- 30% 11+

Treatments: 58% had tried at least 5 types (medications, physical therapy, acupuncture)

Medication history: 51% had tried at least 4 classes

32% had surgery; of these, 56% had more than one procedure
### Baseline scores

<table>
<thead>
<tr>
<th>Variable</th>
<th>ACT</th>
<th>CBT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interference (BPI)</td>
<td>5.8 (2.0)</td>
<td>5.8 (2.1)</td>
</tr>
<tr>
<td>Severity (BPI)</td>
<td>6.0 (1.2)</td>
<td>5.8 (1.4)</td>
</tr>
<tr>
<td>Physical Function (SF-12 PCS)</td>
<td>29.1 (6.8)</td>
<td>31.4 (8.8)</td>
</tr>
<tr>
<td>Emotional Function (SF-12 MCS)</td>
<td>40.0 (12.0)</td>
<td>42.3 (11.6)</td>
</tr>
<tr>
<td>Activity (MPI)</td>
<td>2.0 (1.0)</td>
<td>2.3 (0.9)</td>
</tr>
<tr>
<td>Depression (BDI)</td>
<td>18.7 (21.1)</td>
<td>15.5 (10.3)</td>
</tr>
<tr>
<td>Pain-related Anxiety (PASS-20)</td>
<td>45.5 (22.8)</td>
<td>41.7 (20.8)</td>
</tr>
</tbody>
</table>

Major depression: 39% ACT, 18% CBT, $p = .01$
Change in pain interference

![Graph showing change in pain interference over time with two treatments: ACT and CBT. The graph indicates a decrease in pain interference post-treatment.]
Other outcomes

- No difference between ACT and CBT on any outcome
- ACT led to reductions in pain interference, physical health-related QOL, depression, and anxiety
- CBT led to reductions in pain interference, pain severity, mental health-related QOL, depression, and anxiety
- No change in activity in either condition
Credibility and satisfaction

Credibility (Session 1)

Satisfaction (Posttreatment)

No differences in attrition (CBT 8/50; ACT 6/49)
Limitations and conclusions

- Relatively low baseline scores on pain interference and severity (but high rates of disability and low physical functioning)
- No attention placebo control
- Self-reported activity (actigraph data to be analyzed)
- Both ACT and CBT appear to be effective adjunctive treatments for chronic pain
- Even in a treatment-resistant sample
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