Group-based treatment for Chronic Pain
Is ACT effective, and how does it compare to CBT?

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Background

Chronic pain (CP) is a condition that often results in significant and lasting disability. Research has shown that psychological interventions for CP are able to provide unique benefit to those who, almost without exception, have exhausted the benefits offered by biomedical approaches and still desire further improvement. Basic behavioural strategies have been identified as a key component in any psychotherapeutic framework for CP. However, the method by which these principles are delivered, and the process by which they are best able to operate has been the focus of recent heated empirical debate.

Proponents of CBT have long stated that challenging thinking is the key process for lasting change (Clark, 1995). However, despite offering general support for the utility of a CBT approach in the treatment of chronic pain, the current literature surrounding the importance of direct thought challenging has been labelled inconsistent, and even weak. For example, studies have shown that cognitive change does not reliably explain or account for improvements in patient outcomes (Hayes, 2006). Further, it has been suggested that the cognitive change components of psychotherapy may not provide any additive benefit (Hayes). As such, it appears as though many of the benefits achieved in CBT may be attributable to the behavioural components of the approach.

Acceptance and Commitment Therapy (ACT) is providing a plausible alternative. It operates on the same basic behavioural principles that have been demonstrated in years of thorough research to be instrumental in positive change. Importantly, it extends on CBT through its focus on processes, like acceptance, that have been found to be consistently related to outcome domains more strongly than any other process of change variable in the CP field (Vowles & McCracken, 2010). However, research documenting its efficacy against the current benchmark of CBT has not been adequately investigated.

Aims

The current study aimed to directly evaluate a 9-week ACT-based intervention for CP and compare outcomes to those achieved in a 9-week CBT-based intervention at the Royal Adelaide Hospital (RAH) Pain Management Unit (PMU). The main research questions to be investigated were: Did participants in the ACT-based intervention improve over time? How did these improvements compare to those of the CBT-based group? Did acceptance or coping strategies better account for or explain changes in outcome domains?

Method

Group allocation was dependent upon time of referral. Initially, those on the waiting list were assigned to groups. Participants were then scheduled for a pre-group psychotherapy screening session, at which time they were given a questionnaire package to be returned prior to commencing the program. This questionnaire package was also distributed at program completion. The same procedure was later adhered to in allocating participants to the CBT group. Both interventions consisted of 9 weekly sessions, each of 2 hours.

Results

11 (65%) participants from the ACT group and 8 (50%) participants from the CBT group completed treatment. Participants from both groups improved over time on every measured domain. Improvements on each domain were greater among the ACT group than the CBT group, as seen in Figure 1.

Data were then pooled to examine the explanatory power of either coping or acceptance on outcome domains, as displayed in Table 1. Among those who completed treatment in either condition, post-group levels of acceptance were strongly and significantly correlated with post-group pain-related anxiety (r=0.785, p<0.001), physical health (r=0.650, p=0.006), bodily pain (r=0.575, p=0.020) and depression (r=0.528, p=0.045).

Importantly, acceptance was also very strongly and significantly associated with use of a catastrophic coping strategy (r=-0.891, p<0.001). Use of a catastrophic coping strategy was also strongly and significantly related to other important post-group outcome domains such as pain-related anxiety (r=-0.882, p<0.001), physical health (r=0.697, p<0.003) and bodily pain (r=0.766, p<0.001). However, use of a catastrophic coping strategy appeared unrelated to depression (r=-0.367, p=0.179) and anxiety (r=0.292, p=0.290).

Further investigation revealed that use of a catastrophic coping strategy was unrelated to any one of the other five subscales of the coping strategies questionnaire, which aims to tap into key processes congruent with a CBT model.

Discussion

This study offers support for the use of an ACT paradigm in the treatment of CP. Further, whilst acknowledging low participant numbers and an inability to randomly allocate to groups, this study suggests that ACT may in fact have the potential to outperform CBT as a treatment for CP.

Additionally, acceptance appeared to play a major role in explaining improvements in almost all outcome domains. This study highlights a potential link between acceptance and the use of a catastrophic coping strategy, and the significant role that these two processes appear to have on outcome domains such as pain-related anxiety, physical health and bodily pain.

The results of this study highlight the need for a randomized controlled trial with much larger patient numbers to examine more closely the role of acceptance and the utility of an ACT approach in the treatment of CP.

Table 1. Correlations between process of change and outcome measures

<table>
<thead>
<tr>
<th>Process</th>
<th>Acceptance</th>
<th>Pain-Related Anxiety</th>
<th>Bodily Pain</th>
<th>Depression</th>
<th>Anxiety</th>
<th>Physical Health</th>
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<tbody>
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<td>Acceptance</td>
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<tr>
<td>Pain-Related Anxiety</td>
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<tr>
<td>Bodily Pain</td>
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<td>Depression</td>
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<tr>
<td>Physical Health</td>
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</tbody>
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*sig to the p<0.05
**sig to the p<0.001

References


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Figure 1: Pre-Post effect size changes in outcome domains for the ACT and CBT groups