Psychological treatment based on cognitive-behavioural therapy principles in people concerned about prior panic attacks

Q8: Is psychological treatment based on cognitive-behavioural therapy principles better (more effective in symptom reduction) than treatment as usual in people concerned about prior panic attacks?

Background

The scoping question is reviewed as part of WHO’s efforts to develop an essential mental health care package for use in non-specialized care settings in low-income settings. In order to limit the size of the package, eight conditions have been selected as priority conditions, including depression but not panic disorder. The package will only cover differential diagnosis of the 8 conditions. Yet, the reality is that patients seek help for a much broader range of problems, including panic attacks.

Cognitive-behavioural therapy (CBT) is an effective psychological treatment for depressive disorders (refer to the scoping question in depression module - http://www.who.int/mental_health/mhgap/evidence/depression/en/index.html) and for anxiety disorders (NICE, 2004). Panic attacks are acute episodes of extreme anxiety, characterized by prominent cognitive and autonomic experiences. Apart from the psychopathological basis of cognitive experiences being a critical component of the vicious cycle of anxiety that typifies a panic attack, panic attacks often co-occur with mood and anxiety disorders. This scoping question aimed to evaluate whether treatment on CBT principles had a specific beneficial effect on the anxiety symptoms. The scoping question involves people with panic attacks including people that meet criteria for panic disorder.

The approach taken in this and other scoping questions that discuss "treatment on the principles of CBT" is that "treatment on the principles of CBT" includes application of specific components of CBT (e.g. re attribution, behavioral activation etc). Existing systematic reviews, however, are on CBT proper and not on their components. The strategy has thus been to study systematic reviews on CBT proper and to consider this as indirect evidence for the components. Thus when the evidence is GRADEd, the evidence is downgraded because of its indirectness.

Population/Intervention(s)/Comparator/Outcome(s) (PICO)

Population: adults with panic attacks

Interventions: psychological treatment based on cognitive-behavioural therapy principles

Comparisons: usual care

Outcomes: treatment effectiveness in reducing anxiety and depressive symptoms

adverse effects
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List of the systematic reviews identified by the search process

INCLUDED IN GRADE TABLES OR FOOTNOTES


EXCLUDED FROM GRADE TABLES AND FOOTNOTES


NICE (2004). Anxiety: management of anxiety (panic disorder, with or without agoraphobia, and generalised anxiety disorder) in adults in primary, secondary and community care. National Clinical Guidelines 22. (reason for exclusion: quite old data, no forest plots or summary estimates)


PICO Table

<table>
<thead>
<tr>
<th>Serial no.</th>
<th>Intervention/Comparison</th>
<th>Outcomes</th>
<th>Systematic reviews used for GRADE</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Psychological treatment based on CBT principles vs usual care</td>
<td>Anxiety (including panic attacks) Depression Adverse effects</td>
<td>Mitte (2005)</td>
<td>A search in Pubmed suggests that this is the only systematic review with summary estimates that compares with usual care</td>
</tr>
</tbody>
</table>
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Narrative description of the studies that went into the analysis

The Mitte (2005) review gives little detail on the included studies. Yet, it does indicate that 22 of 32 studies were published before 1996, that 1832 patients were studied, that the average studied patient was 37 years old with a history of the disorder for 9 years, that 3 of 4 participants were female, and that the average trial involved 16 hours of treatment. No ITT analysis was carried out for the 32 studies.

GRADE Tables

Table 1
Author(s): Mark van Ommeren and Scott Baker
Date: 2009-06-25
Question: Should psychological treatment based on CBT principles vs treatment as usual be used for panic attacks?
Settings:

<table>
<thead>
<tr>
<th></th>
<th>Quality assessment</th>
<th>Summary of findings</th>
<th>Effect</th>
<th>Importance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No of studies</td>
<td>Design</td>
<td>Limitations</td>
<td>Inconsistency</td>
</tr>
<tr>
<td>anxiety symptom severity post intervention (Better indicated by higher values)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>32¹</td>
<td>randomised trials</td>
<td>serious²</td>
<td>no serious inconsistency¹,³</td>
<td>serious⁴</td>
</tr>
<tr>
<td>depression symptom severity post intervention (Better indicated by higher values)</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>23¹</td>
<td>randomised trials</td>
<td>serious²</td>
<td>no serious inconsistency¹,³</td>
<td>serious⁴</td>
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<tr>
<td>Safety</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>no evidence available</td>
<td></td>
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</tbody>
</table>
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<table>
<thead>
<tr>
<th>0%</th>
<th>0 fewer per 1000 (from 0 fewer to 0 fewer)</th>
</tr>
</thead>
</table>

1 Relevant data are in p.33 of Mitte (2005) review (Table 3 first two rows).
2 p.36, section 3.6, of Mitte (2005) review: The average drop out rate for CBT was 15.1% (SD=12.8; n=81). p.30, Table 2, of Mitte (2005) review: ITT analyses were not performed for CBT.
3 I-squared was manually calculated with Q=41.11 and df = n-1 = 31, resulting in I-squared of 24.6%.
4 The scoping question is about a population of people with presenting panic attacks, while the review is about people with panic attack as a disorder.
5 Number of participants is not provided but the number of trials is very large and the resulting effect size with confidence interval is clearly interpretable.
7 IMPORTANT. This effect size is Hedges g (random effects model) and this is thus a significant effect.
8 Mitte (2005) describes on first column of page 30 that anxiety symptoms were further divided in three subcategories: avoidance (i.e., agoraphobia), cognition and arousal (e.g., symptoms and number of panic attacks). Mitte (2005) (first column, page 32) reports that the observed mean effect sizes of avoidance, arousal, and cognition were comparable across anxiety subcategories.
9 I-squared was manually calculated with Q=23.01 and df = n-1 = 22, resulting in I-squared of 4.4%.

Reference List


## From evidence to recommendations

<table>
<thead>
<tr>
<th>Factor</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Narrative summary of the evidence base</td>
<td>In terms of anxiety symptom score severity, there is low quality evidence that patients with panic attacks who received treatment based on CBT had significantly better scores compared to those who did not receive this treatment. There was a large effect size from 32 RCTs reporting anxiety score outcomes was (Hedges $g$ 0.87, 95% CI 0.71 to 1.03); the corresponding effect from 23 RCTs reporting depression score outcome was also large (Hedges $g$, 0.72, 95% CI 0.54 to 0.9).</td>
</tr>
<tr>
<td></td>
<td>Note that trials included in the review comprised patients with panic disorder whereas the scoping question is concerned with panic attacks; however, patients with panic disorder experience, by definition, multiple panic attacks so there is likely to be a large overlap between these patient groups.</td>
</tr>
<tr>
<td>Summary of the quality of evidence</td>
<td>LOW (see GRADE table).</td>
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<tr>
<td>Additional evidence (eg related evidence that was not scoped)</td>
<td>A previous Cochrane review (Furukuwa et al, 2007) compared combined psychotherapy plus antidepressant treatment for panic disorder with or without agoraphobia, in comparison with either therapy alone and identified 23 randomised comparisons (representing 21 trials, 1709 patients), 21 of which involved behaviour or cognitive-behaviour therapies. In the acute phase treatment, the combined therapy was superior to antidepressant pharmacotherapy (RR 1.24, 95% confidence interval (CI) 1.02 to 1.52) or psychotherapy (RR 1.17, 95% CI 1.05 to 1.31). The combined therapy produced more dropouts due to side effects than psychotherapy. After the acute phase treatment, as long as the drug was continued, the superiority of the combination over either monotherapy appeared to persist. After termination of the acute phase and continuation treatment, the combined therapy was more effective than pharmacotherapy alone (RR 1.61, 95% CI 1.23 to 2.11) and was as effective as psychotherapy (RR 0.96, 95% CI 0.79 to 1.16). The authors concluded that either combined therapy or psychotherapy alone may be chosen as first line treatment for panic disorder.</td>
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<table>
<thead>
<tr>
<th>Balance of benefits versus harms</th>
<th>No meta-analyzed data are available for adverse effects. However, CBT based intervention is unlikely to have any significant clinical harms - suggesting a positive balance of benefits versus harms.</th>
</tr>
</thead>
</table>
| Define the values and preferences including any variability and human rights issues | The key concern with clinical presentations of panic attacks is the inappropriate use of pharmacotherapies (e.g. hypnotics) leading to increased costs of care (often borne by patients) and iatrogenic problems (e.g. hypnotic dependence). Providing an evidence-based alternative treatment has benefits beyond therapeutic efficacy in reducing the use of non-evidence based treatments with adverse economic and health consequences.  
Psychological treatment based on CBT principles has value in that it may possibly build the capacity of the person to address stressors and unpleasant cognitive and emotional experiences in the long-term. |
| Define the costs and resource use and any other relevant feasibility issues | There are likely costs of training and therapist time; and opportunity costs of travel and time for sessions. Balanced against this is the cost of inappropriate use of a variety of pharmacotherapies.  
Little is known about the feasibility of CBT in non-western settings where much mental health care is provided in primary care settings and is often financed out-of-pocket. In socialized health care systems with relatively strong primary mental health care systems, these issues may be of less concern. |
| Final recommendation(s) | In non-specialized health care settings psychological treatment based on cognitive-behavioural therapy principles should be considered as treatment of people concerned about prior panic attacks.  
Strength of recommendation: STANDARD |
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Update of the literature search – June 2012

In June 2012 the literature search for this scoping question was updated. The following systematic reviews were found to be relevant without changing the recommendation: