

## **Appendix 15e: Study characteristics – computerised cognitive behavioural therapy for panic disorder**

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# Characteristics Table for The Clinical Question: In the treatment of panic disorder does CCBT improve outcome?

## Comparisons Included in this Clinical Question

<b>CBT vs applied relaxation</b>
CARLBRING2003

<b>CBT vs CCBT</b>
CARLBRING2005
KIROPOULOS2008

<b>CBT vs CCBT vs information control</b>
KLEIN2006

<b>CCBT + stress management vs other active treatments</b>
RICHARDS2006A

<b>CCBT vs information control</b>
RICHARDS2006A

<b>CCBT vs waitlist control</b>
CARLBRING2001
CARLBRING2006

## Characteristics of Included Studies

Methods	Participants	Outcomes	Interventions	Notes
<p><b>CARLBRING2001</b></p> <p>Study Type: RCT</p> <p>Study Description: Evaluated an internet delivered self-help programme + minimal therapist contact via email for people with panic disorder over a period of 7-12 weeks</p> <p>Type of Analysis: ITT</p> <p>Blindness: No mention</p> <p>Duration (days): Mean 67 Range 49-84</p> <p>Followup: none</p> <p>Setting: Outpatients recruited from adverts: Sweden</p> <p>Notes: RANDOMISATION: drawing of lots</p> <p>Info on Screening Process: 500 screened.459 excluded as did not meet the DSM-IV criteria for panic disorder (PD)</p>	<p>n= 41</p> <p>Age: Mean 34 Range 21-51</p> <p>Sex: 12 males 29 females</p> <p>Diagnosis: 100% Panic disorder by DSM-IV</p> <p>Exclusions: Not meeting the DSM-IV criteria for PD: duration of less than 1 year, younger than 18 or older than 60, had other psychiatric disorders that needed immediate treatment, had too mild a depression score on MADRS-SR (i.e. more than 21 points and more than 4 points on the suicide questions), no reported panic attacks or symptom attacks during pre-treatment baseline (2 weeks), on unstable medication (i.e. not constant for more than 3 months before), if recently joined therapy (in last 6 months), if having CBT already, no epilepsy, kidney problems, strokes, organic brain syndrome, emphysema, heart disorders, or chronic high blood pressure. If not had previous contact with a physician, psychologist, or other health professional as a consequence of panic attacks.</p> <p>Notes: 64% of sample was taking psychoactive medication, and SSRI were the most frequently prescribed drugs (44%)</p> <p>Baseline: Average daily anxiety during baseline period was 30 (SD = 15.4, range = 2.5-63), average number of full-blown panic attacks during the 2-week baseline period was 4.4 (SD = 6.9, range = 0-36) and 6.8 (SD = 8.7, range = 0-51) for limited symptom attacks. Daily anxiety CCBT = 30.85 (15.8), Control = 28.56 (15.3)</p>	<p><b>Data Used</b></p> <p>Agoraphobic Cognitions Questionnaire</p> <p>Mobility Inventory</p> <p>Full-blown panic attacks per week</p> <p>Limited symptom attacks per week</p> <p>Leaving the study early for any reason</p> <p>Beck Anxiety Inventory</p> <p>Beck Depression Inventory</p> <p>Body Sensations Questionnaire</p> <p>QoL</p> <p>Notes: DROP OUTS: 4 in CCBT; 1 in WLC. Taken at baseline, 12 weeks</p>	<p><b>Group 1 N= 21</b></p> <p>CCBT. Mean dose 12 - Expected to read material and do the exercises described in the modules. Had to answer the questions at the end of each module before they could receive the password to next module.</p> <p><b>Group 2 N= 20</b></p> <p>Waiting-list control. Mean dose 12</p>	<p>Funding:sponsored by grants from Swedish Medical Research Council and other Swedish foundations. Quality Assessed: Unclear for selection, performance, attrition and detection bias</p>
<p><b>CARLBRING2003</b></p> <p>Study Type: RCT</p> <p>Study Description: 22 participants were randomised to either a web based applied relaxation or a multimodal treatment package based on CBT</p> <p>Type of Analysis: ITT</p> <p>Blindness: No mention</p> <p>Duration (days): Mean 14</p> <p>Followup: none</p> <p>Setting: Recruited from waiting list of earlier</p>	<p>n= 22</p> <p>Age: Mean 38 Range 18-60</p> <p>Sex: 7 males 15 females</p> <p>Diagnosis: 100% Panic disorder by DSM-IV</p> <p>Exclusions: a) did not fulfill DSM-IV criteria for Panic Disorder (PD); b) PD duration of less than 1 year; c) younger than 18 and older than 60; d) had another psychiatric disorder; e) had a depression point total on the self-rated version of the MADRS-SR of more than 21 points and more</p>	<p><b>Data Used</b></p> <p>Agoraphobic Cognitions Questionnaire</p> <p>Mobility Inventory</p> <p>Remission ('panic free status')</p> <p>MADRS</p> <p>Number of panic attacks per week</p> <p>Leaving the study early for any reason</p> <p>Beck Anxiety Inventory</p> <p>Beck Depression Inventory</p> <p>Body Sensations Questionnaire</p> <p>QoL</p>	<p><b>Group 1 N= 11</b></p> <p>CCBT. Mean dose 2 sessions - Consisted of 6 modules: psychoeducation, breathing retraining, cognitive restructuring, exposure, relapse prevention and assertiveness training. A total of 30 minutes spent on each participant.</p>	<p>FUNDING: Swedish foundation for health care sciences and allergy research etc. Quality Assessed: Selection Bias-unclear; Performance Bias-unclear; Attrition Bias-Low; Detection Bias-Unclear</p>

<p>programme, self-recruited from internet adverts; Sweden</p> <p>Notes: RANDOMISATION: true random number service</p> <p>Info on Screening Process: 53 people screened, 31 excluded due to panic attacks being better accounted for by social phobia (n=18), specific phobia (n=2), or obsessive compulsive disorder (n=1). Also if did not come to interview (n=7), chose not to continue (n= 5).</p>	<p>than 4 points on the suicide question; f) PD not primary problem; g) less than one full blown panic attack or limited symptom attack during 2 week baseline period; h) an inconsistent dosage of prescribed drugs over 3 month period; i) will not agree to keep dosage constant throughout study; j) started therapy less than 6 months ago; k) having CBT; l) no previous contact with physician, psychologist or other mental health professional as consequence of panic attacks; m) other medical condition</p> <p>Notes: 30 minutes spent on each participant (include administration, email response etc)</p> <p>Baseline: Years with PD: CCBT = 11.9 (6), AR = 8.8 (4); on SSRIs: CCBT = 34.6%, AR = 63.6%, Benzodiazepines: CCBT = 18.2%, AR = 27.3% Tricyclic antidepressant: CCBT = 36.4%, AR =9.1%, Psychotherapy: CCBT = 9.1%, AR = 18.2%, specific phobia: CCBT =63.6%, AR = 16.7%</p>	<p>Notes: Taken at 2 week baseline period &amp; 2 week post-treatment. DROP OUT: CCBT= 3/11, AR = 2/11</p>	<p><b>Group 2 N= 11</b></p> <p>Applied relaxation (self-help). Mean dose 2 sessions - CD with three relaxation instructions. Divided into 9 modules ranging from psychoeducation to relapse prevention. Participants with mobiles were sent text reminders to relax twice every week day. A total of 30 minutes spent on each participant.</p>	
<p><b>CARLBRING2005</b></p> <p>Study Type: RCT</p> <p>Study Description: A randomised trial comparing 10 individual weekly sessions of CBT vs. CCBT for PD.</p> <p>Type of Analysis: ITT</p> <p>Blindness: No mention</p> <p>Duration (days): Mean 70</p> <p>Followup: 1 year (extractable)</p> <p>Setting: Waitlist of people who expressed interest in previous study, Sweden</p> <p>Notes: RANDOMISATION: true random number service (<a href="http://www.random.org">http://www.random.org</a>)</p> <p>Info on Screening Process: 427 people screened 363 excluded due to social phobia, panic attack frequency too low, &lt;3 symptoms, recent commencement of medication, recently commenced or intensified another unrelated psychotherapy, depression score high</p>	<p>n= 49</p> <p>Age: Mean 35 Range 18-60</p> <p>Sex: 14 males 35 females</p> <p>Diagnosis: 100% Panic disorder by DSM-IV</p> <p>Exclusions: Person lived too far from the study site. Did not meet the DSM-IV criteria of panic disorder (PD), had a depression score on MADRS-SR of more than 21 points and more than 4 points on the suicide question, if PD was not the primary problem, if commenced medication less than 3 months ago, not agreeing to keep medication constant throughout study, if commenced therapy &lt;6 months ago and if had CBT, if had general medical condition. If had PD &lt; 1 year.</p> <p>Baseline: BAI: CBT = 24.5 (10.4), CCBT: 18.7 (10.3). Data available at baseline for medicine, psychotherapy &amp; comorbid diagnosis.</p>	<p><b>Data Used</b></p> <p>Agoraphobic Cognitions Questionnaire Mobility Inventory MADRS Remission (not meeting diagnosis according to SCID Beck Anxiety Inventory Beck Depression Inventory Body Sensations Questionnaire QoL</p> <p>Notes: Taken at baseline, 10 weeks and 1 year follow up. DROP OUT: 3/24 CBT, 3/25 CCBT</p>	<p><b>Group 1 N= 25</b></p> <p>CCBT. Mean dose 150 minutes - manualized and divided into 10 modules: psychoeducation, breathing retraining, cognitive restructuring, interoceptive exposure, exposure in-vivo &amp; relapse prevention. Exercises included thought records, homework, multiple choice questions, discussion grp.</p> <p><b>Group 2 N= 25</b></p> <p>CBT. Mean dose 10 weeks - manualized and divided into 10 modules: psychoeducation, breathing retraining, cognitive restructuring, interoceptive exposure, exposure in-vivo &amp; relapse prevention. Sessions lasted 45-60 mins, homework expected &amp; tape recordings to consolidate learning.</p>	<p>FUNDING: Sponsored by grants from various Swedish Foundations. Quality Assessed: selection bias-unclear; performance bias-unclear; attrition bias-low; detection bias-unclear</p>
<p><b>CARLBRING2006</b></p> <p>Study Type: RCT</p> <p>Study Description: ITT included all randomised participants regardless of study participation.</p> <p>Type of Analysis: ITT(LOCF)</p> <p>Blindness: Rater only blind</p> <p>Duration (days): Mean 70</p> <p>Followup: 9 months (treatment group only - data not extractable)</p> <p>Setting: Recruited from the waiting list of earlier trials, Sweden</p> <p>Notes: RANDOMISATION: A true random-number service was used</p> <p>Info on Screening Process: 358, 254 excluded through screening, 104 administered SCID, 44 further excluded due to low panic frequency (19), not reachable (9), changed medication (9), other psychotherapy (7)</p>	<p>n= 60</p> <p>Age: Mean 37</p> <p>Sex: 24 males 36 females</p> <p>Diagnosis: 100% Panic disorder by DSM-IV</p> <p>Exclusions: - not meeting DSM-IV criteria for panic disorder or panic disorder not the primary disorder - duration of panic disorder &lt;1 year - aged &lt;18 or &gt;60 years - had another psychiatric disorder - MADRS &gt;21 and/or &gt; 4 on items targeting suicidal ideation - currently taking medication for panic disorder which is not stable or constant dose during the past 3 months and entire duration of the study - receiving any therapy that has lasted for less than 6 months and/or receiving any form of CBT - any other relevant medical conditions</p> <p>Baseline: BAI: CCBT: 20.8 (10.0), Waiting list control: 19.5 (9.4) No significant differences in baseline characteristics</p>	<p><b>Data Used</b></p> <p>Agoraphobic Cognitions Questionnaire Mobility Inventory Beck Anxiety Inventory Beck Depression Inventory Body Sensations Questionnaire QoL Remission (telephone clinical interview)</p> <p>Notes: TAKEN AT: Baseline and end of treatment (10 weeks), 9 month follow-up for intervention group only DROPOUTS: CCBT: 1/30 (3%), WLC: 2/30 (7%)</p>	<p><b>Group 1 N= 30</b></p> <p>Waiting-list control</p> <p><b>Group 2 N= 30</b></p> <p>CCBT - Manualised treatment divided into 10 modules each consisting of 25 pages of written text, which were converted into interactive web pages. Participants accessed the programme at home or their place of work. Modules included information and exercises. Waiting-list control</p>	<p>Funding: funded by grants from the Swedish Foundation for Healthcare Sciences and Allergy Research and other Swedish research foundations. Quality assessed: selection bias-unclear; performance bias-unclear; attrition bias-low; detection bias-low</p>

<p><b>KIROPOULOS2008</b></p> <p>Study Type: RCT</p> <p>Study Description: Compare weekly individual face-face CBT with CCBT</p> <p>Type of Analysis: Completer</p> <p>Blindness: Single blind</p> <p>Duration (days): Mean 84</p> <p>Followup: N/A</p> <p>Setting: Recruited through Panic Online website, Australia</p> <p>Notes: RANDOMISATION:- random numbers table.</p> <p>Info on Screening Process: 799 potential participants were screened for eligibility using a questionnaire. 713 didn't fit DSM-IV criteria for Panic Disorder (PD).</p>	<p>n= 86</p> <p>Age: Mean 39 Range 20-64</p> <p>Sex: 24 males 62 females</p> <p>Diagnosis: 100% Panic disorder by DSM-IV</p> <p>Exclusions: Not Australian residents and living in Victoria. Not having a DSM-IV primary diagnosis of PD (with or without agoraphobia). Presence of seizure disorder, stroke, schizophrenia, organic brain syndrome, heart condition, alcohol or drug dependency, personality disorder, or chronic hypertension. Taking other types of therapy during the study. Those with anxiety/depression who were not stabilised on their medication for at least 12 weeks.</p> <p>Baseline: Panic disorder severity scale: CCBT: 14.85(4.40) CBT: 14.80 (5.04). Comorbidity: PD only: 42%, PD + Agoraphobia = 58%</p>	<p><b>Data Used</b></p> <p>Agoraphobic Cognitions Questionnaire</p> <p>Treatment satisfaction</p> <p>Clinician-rated panic</p> <p>Therapist allegiance questionnaire</p> <p>Anxiety Sensitivity Profile</p> <p>Clinician-rated agoraphobia</p> <p>Treatment credibility scale</p> <p>Full panic attacks in last month</p> <p>Remission (clinician-rated severity rating &lt; 2)</p> <p>PDSS (Panic Disorder Severity Scale)</p> <p>Leaving the study early for any reason</p> <p>QoL</p> <p>Depression Anxiety Stress Scales</p> <p>Notes: Taken at: Baseline and endpoint</p> <p>DROP OUT: 5/46 CCBT, 2/40 CBT</p>	<p><b>Group 1 N= 40</b></p> <p>CBT - Manualised CBT over 12 weeks. One hour weekly sessions and designated weekly reading.</p> <p><b>Group 2 N= 46</b></p> <p>CCBT - Panic Online is a structured programme comprised of 4 modules. One module per week. Therapists responded to participants' emails within 24 hours. Majority reported using the programme at home.</p>	<p>National Health and Medical Research Council Project grant. Quality assessed: unclear for selection, performance, attrition, &amp; detection bias</p>
<p><b>KLEIN2006</b></p> <p>Study Type: RCT</p> <p>Study Description: ITT included all randomised participants regardless of study participation.</p> <p>Type of Analysis: ITT</p> <p>Blindness: Single blind</p> <p>Duration (days): Mean 42</p> <p>Followup: 90 days (not extractable)</p> <p>Setting: Recruited online, outpatients, Australia</p> <p>Notes: RANDOMISATION: Randomly assigned sequentially (ABC, ABC)</p> <p>Info on Screening Process: 130 registered, 75 excluded in total, for not meeting DSM-IV Panic Disorder (PD) diagnosis (n=54), no longer interested (n=7), other reasons (n=14).</p>	<p>n= 55</p> <p>Age: Range 18-70</p> <p>Sex: 11 males 44 females</p> <p>Diagnosis: 100% Panic disorder by DSM-IV</p> <p>Exclusions: -Not Australian residents -Not having a DSM-IV primary diagnosis of Panic Disorder (with/without agoraphobia) -Having seizure disorder, stroke, schizophrenia, organic brain syndrome, heart condition, alcohol or drug dependency, or chronic hypertension. - taking other types of therapy during study. -if those with depression/anxiety had not been stabilised on medication for at least 4 weeks.</p> <p>Baseline: CCBT: 21.11(3.7), self-administered CBT 21.7(4.5), Control 19.14(4.5)</p>	<p><b>Data Used</b></p> <p>Number of GP visits in 1 month</p> <p>Agoraphobic Cognitions Questionnaire</p> <p>Treatment satisfaction</p> <p>Clinician assessed panic severity</p> <p>Body Vigilance Scale</p> <p>Anxiety Sensitivity Profile</p> <p>Clinician-rated agoraphobia</p> <p>PDSS (Panic Disorder Severity Scale)</p> <p>Health rating</p> <p>Number of panic attacks per week</p> <p>Depression Anxiety Stress Scales</p> <p>Remission (panic free using ADIS-IV criteria)</p> <p>Notes: Taken at: baseline, endpoint and 3 month follow-up.</p> <p>DROP OUT: 1/19 CCBT, 3/15 Self-CBT, 5/18 Control.</p>	<p><b>Group 1 N= 18</b></p> <p>Information control - Told to wait 6 weeks until therapist was available. Minimal support provided- contacted each week for monitoring and told to re-read info on internet based program.</p> <p><b>Group 2 N= 19</b></p> <p>CCBT - Panic Online- 6 week structured programme, 4 learning modules and relapse prevention module. Therapist responded to emails within 24 hours.</p> <p><b>Group 3 N= 18</b></p> <p>CBT self-help - CBT bibliotherapy workbook over 6 weeks. Therapist telephones twice weekly to assist and monitor. Used mostly from home.</p>	<p>Australian Rotary Health Research Fund grant. Quality assessed: Bias: Selection-High; Performance-Unclear; Attrition-Low; Detection-Unclear</p>
<p><b>RICHARDS2006A</b></p> <p>Study Type: RCT</p> <p>Study Description: Effect of CCBT+ stress management vs. CCBT alone vs. internet-based info-only control on end-state functioning at week 8 and 3 month follow up</p> <p>Type of Analysis: ITT</p> <p>Blindness: Open</p> <p>Duration (days): Mean 56</p> <p>Followup: 3 months (not extractable)</p>	<p>n= 32</p> <p>Age: Mean 37 Range 18-70</p> <p>Sex: 10 males 22 females</p> <p>Diagnosis: 100% Panic disorder by DSM-IV</p> <p>Exclusions: Presence of a seizure disorder, stroke, schizophrenia, organic brain syndrome, heart condition, alcohol or drug dependency, or chronic hypertension. Not having a primary diagnosis of PD (with or without</p>	<p><b>Data Used</b></p> <p>Number of GP visits in 1 month</p> <p>Agoraphobic Cognitions Questionnaire</p> <p>Clinician-rated panic</p> <p>Body Vigilance Scale</p> <p>Anxiety Sensitivity Profile</p> <p>Clinician-rated agoraphobia</p> <p>Remission (clinician-rated severity rating &lt; 2)</p> <p>PDSS (Panic Disorder Severity Scale)</p> <p>Health rating</p>	<p><b>Group 1 N= 11</b></p> <p>CCBT + Stress management. Mean dose 8 weeks - same as CCBT with additional stress management program which includes 6 learning modules on coping with daily stress, time and anger mgmt, tuning in one's thoughts, relaxation, and social connectedness. Extra 90 min required</p>	<p>Funding: Australian Rotary Health Research Fund. Quality assessed: Bias:selection-unclear; performance-unclear; attrition-unclear; detection-unclear</p>

<p>author's panic website. Australia</p> <p>Notes: RANDOMISATION: no details provided</p> <p>Info on Screening Process: 68 screened, 36 excluded due to not being contactable, residing overseas, seeing a mental health therapist regularly, no computer access, under 18 or over 70, not having PD as their primary diagnosis.</p>	<p>agoraphobia). If on medication for less than 4 weeks .</p> <p>Notes: 25 had a primary diagnosis of PD with agoraphobia &amp; 7 without agoraphobia. 7 people had a secondary diagnosis of social phobia, 4 of GAD, 3 with depression, 3 of specific phobia, 2 PTSD, 2 hypochondriasis, 1 somatisation and 10 no secondary diagnosis</p> <p>Baseline: For Panic disorder severity scale: CCBT(alone) = 16.54 (4.2), CCBT + stress management = 19 (4.0), control = 17 (5.3) Number of panic attacks per week: CCBT (alone) = 2.92 (4), CCBT + stress management = 3.36 (3.6), control = 1 (0.9); a sign difference was observed for number of panic attacks 1 week prior to pre-assessment and DASS depression</p>	<p>Number of panic attacks per week</p> <p>QoL</p> <p>Depression Anxiety Stress Scales</p> <p>Notes: Outcomes measured at baseline, 8 weeks, and 3-month follow up. DROP OUT: 2/12 CCBT, 1/11 CCBT + Stress management, 2/9 control.</p>	<p><b>Group 2 N= 9</b></p> <p>CCBT. Mean dose 8 weeks - Comprised of four learning modules, introductory and relapse prevention modules. Included standardised CBT treatments. Therapist interaction over email enabled support and feedback and guidance through programme. Standardised information provided.</p> <p><b>Group 3 N= 9</b></p> <p>Information control. Mean dose 8 weeks - Received no active CBT and were informed that they were required to wait 8 weeks for a therapist to become available. Minimal support provided. Questioned participant panic status. After 8 week interval &amp; completion of assessments, offered treatment.</p>	
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### Characteristics of Excluded Studies

Reference ID	Reason for Exclusion
BERGSTROM2009	No control group, non randomised
BOTELLA2007	Virtual reality exposure
BOUCHARD2004	Not a CCBT method
CHOI2005	Computerised graded exposure
CHRISTENSEN2004	Diagnostic criteria
CHRISTENSEN2006	Diagnostic criteria
CUKROWICZ2007	Non-clinical sample
DRAPER2008	N < 3
FARVOLDEN2005	Non-RCT, diagnosis not based on DSM-IV but rather on a web-based depression & anxiety test
GEGA2007	Paper focuses on teaching method and not on the intervention
GHOSH1988	Computerised graded exposure
GORINI2008	Protocol only - author contacted but not published
Hayward2009	Non-RCT
KENARDY2003A	Augmentation: Not in the scope
KENWRIGHT2004	Not an RCT
KLEIN2001	Non-extractable data
KLEIN2008	N < 6, not an RCT
MARKS2004	Population: Mostly phobic disorders
NEWMAN1997	N < 10
NEWMAN1999	N < 10
PENATE2008	Chronic agoraphobia
PIER2008	Non randomised controlled study
PROUDFOOT2004A	Cannot extract data for anxiety
RICHARDS2002	Non RCT
SHANDLEY2008	Non- RCT (natural groups design)

### References of Included Studies

- CARLBRING2001** (Published Data Only)  
 Carlbring, P., Westling, B.E., Ljungstrand, P., et al. (2001) Treatment of panic disorder via the internet: A randomised trial of a self-help program. *Behavior Therapy*, 32, 751-764
- CARLBRING2003** (Published Data Only)  
 Carlbring, P. (2003) Treatment of panic disorder via the internet: a randomized trial of CBT vs. applied relaxation. *Journal of Behavior Therapy and Experimental Psychiatry*, 34, 129-140.
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 \*Carlbring, P., Nilsson, I. E., Waara, J., et al. (2005) Treatment of panic disorder: Live therapy vs. self-help via the internet. *Behaviour Research and Therapy*, 43, 1321-1333.  
 Andersson, G., Carlbring, P. & Grimlund, A. (2008) Predicting treatment outcome in internet versus face to face treatment of panic disorder. *Computers in Human Behavior*, 24, 1790-1801.
- CARLBRING2006** (Published Data Only)  
 Carlbring, P., Bohman, S., Brunt, S., et al. (2006) Remote treatment of panic disorder: A randomized trial of internet-based cognitive behavior therapy supplemented with telephone calls. *American Journal of Psychiatry*, 163, 2119-2125.
- KIROPOULOS2008** (Published Data Only)  
 Kiroopoulos, L. A., Klein, B., Austin, D. W., et al. (2008) Is internet-based CBT for panic disorder and agoraphobia as effective as face-to-face CBT? *Journal of Anxiety Disorders*, 22, 1273-1284.
- KLEIN2006** (Published Data Only)  
 Klein, B., Richards, J. C. & Austin, D. W. (2006) Efficacy of internet therapy for panic disorder. *Journal of Behavior Therapy and Experimental Psychiatry*, 37, 213-238.
- RICHARDS2006A** (Published Data Only)  
 Richards, J., Klein, B. & Austin, D. (2006) Internet cognitive behavioural therapy for panic disorder: Does the inclusion of stress management information improve end-state functioning? *Clinical Psychologist*, 10, 2-15.

## References of Excluded Studies

- BERGSTROM2009** (Published Data Only)  
 Bergstrom, J., Andersson, G., Karlsson, A., et al. (2009) An open study of the effectiveness of internet treatment for panic disorder delivered in a psychiatric setting. *Nordic Journal of Psychiatry*, 63, 44-50.
- BOTELLA2007** (Published Data Only)  
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- BOUCHARD2004** (Published Data Only)  
 Bouchard, S., Paquin, B., Payeur, R., et al. (2004) Delivering cognitive-behavior therapy for panic disorder with agoraphobia in videoconference. *Telemedicine Journal & E-Health*, 10, 13-25.
- CHOI2005** (Published Data Only)  
 Choi, Y. H., Vincelli, F., Riva, G., et al. (2005) Effects of group experiential cognitive therapy for the treatment of panic disorder with agoraphobia. *Cyberpsychology and Behavior*, 8, 387-393.
- CHRISTENSEN2004** (Published Data Only)  
 Christensen, H., Griffiths, K. M., Korten, A. E., et al. (2004) A comparison of changes in anxiety and depression symptoms of spontaneous users and trial participants of a cognitive behavior therapy website. *Journal of Medical Internet Research*, 6, e46.
- CHRISTENSEN2006** (Published Data Only)  
 Christensen, H., Griffiths, K., Groves, C., et al. (2006) Free range users and one hit wonders: Community users of an internet-based cognitive behaviour therapy program. *Australian and New Zealand Journal of Psychiatry*, 40, 59 - 62.
- CUKROWICZ2007** (Published Data Only)  
 Cukrowicz, K. C. & Joiner, J. (2007) Computer-based intervention for anxious and depressive symptoms in a non-clinical population. *Cognitive Therapy and Research*, 31, 677-693.
- DRAPER2008** (Published Data Only)  
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- FARVOLDEN2005** (Published Data Only)  
 Farvolden, P., Denisoff, E., Selby, P., et al. (2005) Usage and longitudinal effectiveness of a web-based self-help cognitive behavioural therapy program for panic disorder. *Journal of Medical Internet Research*, 7, e7.

- GEGA2007** (Published Data Only)  
Gega, L., Norman, I. J. & Marks, I.M. (2007) Computer-aided vs. tutor-delivered teaching of exposure therapy for phobia/panic: Randomised controlled trial with pre-registration nursing students. *International Journal of Nursing Studies*, 44, 397-405
- GHOSH1988** (Published Data Only)  
Ghosh, A., Marks, I.M. & Carr, A.C. (1988) Therapist contact and outcome of self-exposure treatment for phobias. *British Journal of Psychiatry*, 152, 234-238.
- GORINI2008** (Published Data Only)  
Gorini, A. & Riva, G. (2008) The potential of virtual reality as anxiety management tool: A randomized controlled study in a sample of patients affected by generalized anxiety disorder. *Trials*, 9, 25.
- Hayward2009** (Published Data Only)  
Hayward, L. & MacGregor, A.D. (2007) The feasibility and effectiveness of computer-guided CBT (FearFighter) in a rural area. *Behavioural and Cognitive Psychotherapy*, 35, 409-419.
- KENARDY2003A** (Published Data Only)  
Kenardy, J., McCafferty, K. & Rosa, V. (2006) Internet-delivered indicated prevention for anxiety disorders: Six-month follow-up. *Clinical Psychologist*, 10, 39-42.  
Kenardy, J.A., Dow, M.G.T., Johnston, D.W., et al. (2003) A comparison of delivery methods of cognitive-behavioural therapy for panic disorder: An international multicentre trial. *Journal of Consulting and Clinical Psychology*, 71, 1068-1075
- KENWRIGHT2004** (Published Data Only)  
Kenwright, M., Marks, I.M., Gega, L., et al. (2004) Computer-aided self-help for phobia/panic via internet at home: A pilot study. *British Journal of Psychiatry*, 184, 448-449.
- KLEIN2001** (Published Data Only)  
Klein, B. & Richards, J.C. (2001) A brief internet-based treatment for panic disorder. *Behavioural and Cognitive Psychotherapy*, 29, 113-117
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# Characteristics Table for The Clinical Question: In the treatment of panic disorder which CCBT programmes improve outcome?

## Comparisons Included in this Clinical Question

<b>CCBT + stress management vs CCBT</b>
RICHARDS2006A

<b>CCBT + stress management vs control</b>
RICHARDS2006A

<b>CCBT vs information control</b>
RICHARDS2006A

<b>Infrequent contact CCBT vs frequent contact CCBT</b>
KLEIN2009

## Characteristics of Included Studies

Methods	Participants	Outcomes	Interventions	Notes
<p><b>KLEIN2009</b></p> <p>Study Type: RCT</p> <p>Study Description: Examined whether frequency of therapist contact impacted on outcomes for those with Panic Disorder (PD) receiving CCBT</p> <p>Type of Analysis: ITT</p> <p>Blindness: Open</p> <p>Duration (days): Mean 56</p> <p>Followup: none</p> <p>Setting: Patients registered via website, or notified via media ads: Australia</p> <p>Notes: RANDOMISATION: computer generated random numbers table</p> <p>Info on Screening Process: 439 screened, 382 excluded as PD not primary diagnosis, not an Australian resident, not on stable medication, currently seeing a therapist, did not have PD, didn't respond, or no internet access</p>	<p>n= 57</p> <p>Age: Mean 39 Range 18-70</p> <p>Sex: 10 males 47 females</p> <p>Diagnosis: 100% Panic disorder by DSM-IV</p> <p>Exclusions: Did not meet criteria for PD; aged below 18 or above 70; not an Australian resident; did not have a DSM-IV diagnosis of PD (with or without agoraphobia); PD not primary diagnosis; presence of a seizure disorder; stroke, schizophrenia, organic brain syndrome, heart condition, alcohol or drug dependency, or chronic hypertension; if undertaking any other therapy during the study; if taking medication for depression/anxiety and not on a stable dose for at least 12 weeks</p> <p>Notes: 42 had a primary diagnosis of PD with agoraphobia &amp; 15 without agoraphobia.</p> <p>Baseline: Number of panic attacks in past month: FC CCBT =4.29 (6.14), IC CCBT = 7.64 (10.72), ACQ: FC CCBT = 20.11 (8.68), IC CCBT = 17.50 (10.07)</p>	<p><b>Data Used</b></p> <p>Agoraphobic Cognitions Questionnaire</p> <p>Treatment satisfaction</p> <p>Clinician assessed panic severity</p> <p>Body Vigilance Scale</p> <p>Therapist allegiance questionnaire</p> <p>Anxiety Sensitivity Profile</p> <p>Clinician-rated agoraphobia</p> <p>Full panic attacks in last month</p> <p>PDSS (Panic Disorder Severity Scale)</p> <p>Depression Anxiety Stress Scales</p> <p><b>Data Not Used</b></p> <p>Treatment credibility scale - pretest only</p> <p>Notes: taken at baseline and 8 weeks post-assessment. DROP OUTS: FC CCBT = 6/28, IC CCBT = 8/29</p>	<p><b>Group 1 N= 29</b></p> <p>Infrequent contact CCBT. Mean dose 8 - Informed that they could e-mail their therapist as frequently as they wished, but their therapist would only respond once per week over the 8-week intervention period.</p> <p><b>Group 2 N= 28</b></p> <p>Frequent contact CCBT. Mean dose 8 - Informed that they could email their therapist as often as they wished over the 8-week intervention period and that their therapist would respond, at a minimum, three times per week.</p>	<p>FUNDING: Australian Rotary Health Research Fund; Quality assessed: selection bias: unclear; performance bias: unclear; attrition bias: low; detection bias; low</p>
<p><b>RICHARDS2006A</b></p> <p>Study Type: RCT</p> <p>Study Description: Effect of CCBT+ stress management vs. CCBT alone vs. internet-based info-only control on end-state functioning at week 8 and 3 month follow up</p> <p>Type of Analysis: ITT</p> <p>Blindness: Open</p> <p>Duration (days): Mean 56</p> <p>Followup: 3 months (not extractable)</p> <p>Setting: Outpatients, previous contact with author's panic website. Australia</p> <p>Notes: RANDOMISATION: no details provided</p> <p>Info on Screening Process: 68 screened, 36 excluded due to not being contactable, residing overseas, seeing a mental health therapist regularly, no computer access, under 18 or over 70, not having PD as their primary diagnosis.</p>	<p>n= 32</p> <p>Age: Mean 37 Range 18-70</p> <p>Sex: 10 males 22 females</p> <p>Diagnosis: 100% Panic disorder by DSM-IV</p> <p>Exclusions: Presence of a seizure disorder, stroke, schizophrenia, organic brain syndrome, heart condition, alcohol or drug dependency, or chronic hypertension. Not having a primary diagnosis of PD (with or without agoraphobia). If on medication for less than 4 weeks .</p> <p>Notes: 25 had a primary diagnosis of PD with agoraphobia &amp; 7 without agoraphobia. 7 people had a secondary diagnosis of social phobia, 4 of GAD, 3 with depression, 3 of specific phobia, 2 PTSD, 2 hypochondriasis, 1 somatisation and 10 no secondary diagnosis</p> <p>Baseline: For Panic disorder severity scale: CCBT(alone) = 16.54 (4.2), CCBT + stress management = 19 (4.0), control = 17 (5.3) Number of panic attacks per week: CCBT (alone) = 2.92 (4), CCBT + stress management = 3.36 (3.6), control = 1 (0.9); a sign difference was observed for number of panic attacks 1 week prior to pre-assessment and DASS depression</p>	<p><b>Data Used</b></p> <p>Number of GP visits in 1 month</p> <p>Agoraphobic Cognitions Questionnaire</p> <p>Clinician-rated panic</p> <p>Body Vigilance Scale</p> <p>Anxiety Sensitivity Profile</p> <p>Clinician-rated agoraphobia</p> <p>Remission (clinician-rated severity rating &lt; 2)</p> <p>PDSS (Panic Disorder Severity Scale)</p> <p>Health rating</p> <p>Number of panic attacks per week</p> <p>QoL</p> <p>Depression Anxiety Stress Scales</p> <p>Notes: Outcomes measured at baseline, 8 weeks, and 3-month follow up. DROP OUT: 2/12 CCBT, 1/11 CCBT + Stress management, 2/9 control.</p>	<p><b>Group 1 N= 11</b></p> <p>CCBT + Stress management. Mean dose 8 weeks - same as CCBT with additional stress management program which includes 6 learning modules on coping with daily stress, time and anger mgmt, tuning in one's thoughts, relaxation, and social connectedness. Extra 90 min required</p> <p><b>Group 2 N= 9</b></p> <p>CCBT. Mean dose 8 weeks - Comprised of four learning modules, introductory and relapse prevention modules. Included standardised CBT treatments. Therapist interaction over email enabled support and feedback and guidance through programme. Standardised information provided.</p>	<p>Funding: Australian Rotary Health Research Fund. Quality assessed: Bias:selection-unclear; performance-unclear; attrition-unclear; detection-unclear</p>



			<b>Group 3 N= 9</b> Information control. Mean dose 8 weeks - Received no active CBT and were informed that they were required to wait 8 weeks for a therapist to become available. Minimal support provided. Questioned participant panic status. After 8 week interval & completion of assessments, offered treatment.
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### Characteristics of Excluded Studies

Reference ID	Reason for Exclusion
<b>KENARDY2003A</b>	Augmentation: not in the scope
<b>KENARDY2003B</b>	Subclinical population
<b>SCHNEIDER2005</b>	Population: mostly phobic disorders

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### References of Excluded Studies

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