

# Family Treatment of Child Anxiety: Outcomes, limitations and future directions

Article

Accepted Version

Creswell, C., & Cartwright-Hatton, S. (2007). Family treatment of child anxiety: Outcomes, limitations and future directions. *Child and Family Clinical Psychology Review*, 10(3), 232-252. doi: 10.1007/s10567-007-0019-3.

Publisher Statement: The final publication is available at [link.springer.com](http://link.springer.com)

1  
2  
3  
4  
5 **Family treatment of child anxiety:**  
6 **Outcomes, limitations and future directions**  
7  
8  
9

10 **Dr Cathy Creswell<sup>1</sup>**  
11

12  
13 **&**  
14

15 **Dr Sam Cartwright-Hatton<sup>2</sup>**  
16  
17  
18  
19

20 <sup>1</sup> **School of Psychology and Clinical Language Sciences, University of Reading,**  
21 **UK**  
22

23 <sup>2</sup> **School of Psychological Sciences, University of Manchester, UK**  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54

55 Author for Correspondence: Sam Cartwright-Hatton, School of  
56 Psychological Sciences, Zochonis Building, Brunswick St, University Of  
57 Manchester, Manchester, United Kingdom. M13 9PL. [sam.cartwright-](mailto:sam.cartwright-hatton@manchester.ac.uk)  
58 [hatton@manchester.ac.uk](mailto:sam.cartwright-hatton@manchester.ac.uk)  
59  
60  
61  
62  
63  
64  
65

1  
2  
3  
4  
5  
6  
7  
8  
9

## **Family treatment of child anxiety: Outcomes, limitations and future directions**

10  
11  
12  
13

### **Abstract**

14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52

Anxiety of childhood is a common and serious condition. The past decade has seen an increase in treatment-focussed research, with recent trials tending to give greater attention to parents in the treatment process. This review examines the efficacy of family-based cognitive behaviour therapy and attempts to delineate some of the factors that might have an impact on its efficacy. The choice and timing of outcome measure, age and gender of the child, level of parental anxiety, severity and type of child anxiety and treatment format and content are scrutinised. The main conclusions are necessarily tentative, but it seems likely that Family CBT (FCBT) is superior to no treatment, and, for some outcome measures, also superior to Child CBT (CCBT). Where FCBT is successful, the results are consistently maintained at follow-up. It appears that where a parent is anxious, and this is not addressed, outcomes are less good. However, for children of anxious parents, FCBT is probably more effective than CCBT. What is most clear is that large, well-designed studies, examining these factors alone and in combination, are now needed.

53  
54  
55

### **Keywords**

56  
57  
58  
59  
60  
61  
62  
63  
64  
65

**Anxiety; Review; Treatment; Children; Adolescents; Family**

1  
2  
3  
4  
5  
6  
7  
8  
9

## **Family treatment of child anxiety: Outcomes, limitations and future directions**

10  
11  
12  
13

### **Anxiety in Childhood is Common and Serious**

14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47

In recent years, there has been growing awareness of the problem that childhood anxiety presents. Epidemiological studies indicate that a sizeable proportion of the young population suffer from anxiety disorders. Even very conservative estimates (Ford, Goodman, & Meltzer, 2003) suggest that around 3% of children will have an anxiety disorder (and associated impairment) at any one time. Indeed, in a recent review, anxiety was found to be the most common psychological disorder of childhood, in most studies eclipsing both depression and behaviour disorders in its frequency (Cartwright-Hatton, McNicol, & Doubleday, 2006). Moreover, anxiety is more serious than it was once thought to be. Anxious children are at increased risk of having social and academic difficulties (Pine, 1997; Wood, 2006), are at increased risk of becoming anxious adults (Kim-Cohen, Caspi, Moffitt et al., 2003), and are also at increased risk of developing serious secondary psychological disorder, in particular substance misuse (Kushner, Sher, & Beitman, 1990), and major depression (Kovacs, Gatsonis, Paulauskas, & Richards, 1989).

48  
49  
50  
51  
52

### **The development of treatments**

53  
54  
55  
56  
57  
58  
59  
60  
61  
62  
63  
64  
65

Before the mid 1990's there was very little high quality treatment research investigating interventions for this population. However, the past decade has seen major developments in this field, with major trials being published every year.

1  
2  
3  
4 The vast majority of these trials have reported on Cognitive Behaviour Therapy  
5  
6 (CBT). The key reason for this focus on CBT has been the success that this treatment  
7  
8 has been found to have in treating adults with a range of disorders, including anxiety  
9  
10 (Butler, Chapman, Forman, & Beck, 2006). For pragmatic reasons, therefore, its  
11  
12 adoption by the child field has been understandable. However, CBT with adults, even  
13  
14 for fairly simple anxiety conditions, can be a complex affair. CBT necessarily  
15  
16 involves the intellectual manipulation of complex verbal material, and some authors  
17  
18 have cast doubt on the wisdom of trying to use it, without major modifications, with  
19  
20 children (e.g. Grave & Blissett, 2004). In these early days of CBT for children, few  
21  
22 modifications to the therapy have yet been made. Typically, anxious children work  
23  
24 directly with a therapist, and will be required to identify and challenge their  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60  
61  
62  
63  
64  
65  
66  
67  
68  
69  
70  
71  
72  
73  
74  
75  
76  
77  
78  
79  
80  
81  
82  
83  
84  
85  
86  
87  
88  
89  
90  
91  
92  
93  
94  
95  
96  
97  
98  
99  
100  
101  
102  
103  
104  
105  
106  
107  
108  
109  
110  
111  
112  
113  
114  
115  
116  
117  
118  
119  
120  
121  
122  
123  
124  
125  
126  
127  
128  
129  
130  
131  
132  
133  
134  
135  
136  
137  
138  
139  
140  
141  
142  
143  
144  
145  
146  
147  
148  
149  
150  
151  
152  
153  
154  
155  
156  
157  
158  
159  
160  
161  
162  
163  
164  
165  
166  
167  
168  
169  
170  
171  
172  
173  
174  
175  
176  
177  
178  
179  
180  
181  
182  
183  
184  
185  
186  
187  
188  
189  
190  
191  
192  
193  
194  
195  
196  
197  
198  
199  
200  
201  
202  
203  
204  
205  
206  
207  
208  
209  
210  
211  
212  
213  
214  
215  
216  
217  
218  
219  
220  
221  
222  
223  
224  
225  
226  
227  
228  
229  
230  
231  
232  
233  
234  
235  
236  
237  
238  
239  
240  
241  
242  
243  
244  
245  
246  
247  
248  
249  
250  
251  
252  
253  
254  
255  
256  
257  
258  
259  
260  
261  
262  
263  
264  
265  
266  
267  
268  
269  
270  
271  
272  
273  
274  
275  
276  
277  
278  
279  
280  
281  
282  
283  
284  
285  
286  
287  
288  
289  
290  
291  
292  
293  
294  
295  
296  
297  
298  
299  
300  
301  
302  
303  
304  
305  
306  
307  
308  
309  
310  
311  
312  
313  
314  
315  
316  
317  
318  
319  
320  
321  
322  
323  
324  
325  
326  
327  
328  
329  
330  
331  
332  
333  
334  
335  
336  
337  
338  
339  
340  
341  
342  
343  
344  
345  
346  
347  
348  
349  
350  
351  
352  
353  
354  
355  
356  
357  
358  
359  
360  
361  
362  
363  
364  
365  
366  
367  
368  
369  
370  
371  
372  
373  
374  
375  
376  
377  
378  
379  
380  
381  
382  
383  
384  
385  
386  
387  
388  
389  
390  
391  
392  
393  
394  
395  
396  
397  
398  
399  
400  
401  
402  
403  
404  
405  
406  
407  
408  
409  
410  
411  
412  
413  
414  
415  
416  
417  
418  
419  
420  
421  
422  
423  
424  
425  
426  
427  
428  
429  
430  
431  
432  
433  
434  
435  
436  
437  
438  
439  
440  
441  
442  
443  
444  
445  
446  
447  
448  
449  
450  
451  
452  
453  
454  
455  
456  
457  
458  
459  
460  
461  
462  
463  
464  
465  
466  
467  
468  
469  
470  
471  
472  
473  
474  
475  
476  
477  
478  
479  
480  
481  
482  
483  
484  
485  
486  
487  
488  
489  
490  
491  
492  
493  
494  
495  
496  
497  
498  
499  
500  
501  
502  
503  
504  
505  
506  
507  
508  
509  
510  
511  
512  
513  
514  
515  
516  
517  
518  
519  
520  
521  
522  
523  
524  
525  
526  
527  
528  
529  
530  
531  
532  
533  
534  
535  
536  
537  
538  
539  
540  
541  
542  
543  
544  
545  
546  
547  
548  
549  
550  
551  
552  
553  
554  
555  
556  
557  
558  
559  
560  
561  
562  
563  
564  
565  
566  
567  
568  
569  
570  
571  
572  
573  
574  
575  
576  
577  
578  
579  
580  
581  
582  
583  
584  
585  
586  
587  
588  
589  
590  
591  
592  
593  
594  
595  
596  
597  
598  
599  
600  
601  
602  
603  
604  
605  
606  
607  
608  
609  
610  
611  
612  
613  
614  
615  
616  
617  
618  
619  
620  
621  
622  
623  
624  
625  
626  
627  
628  
629  
630  
631  
632  
633  
634  
635  
636  
637  
638  
639  
640  
641  
642  
643  
644  
645  
646  
647  
648  
649  
650  
651  
652  
653  
654  
655  
656  
657  
658  
659  
660  
661  
662  
663  
664  
665  
666  
667  
668  
669  
670  
671  
672  
673  
674  
675  
676  
677  
678  
679  
680  
681  
682  
683  
684  
685  
686  
687  
688  
689  
690  
691  
692  
693  
694  
695  
696  
697  
698  
699  
700  
701  
702  
703  
704  
705  
706  
707  
708  
709  
710  
711  
712  
713  
714  
715  
716  
717  
718  
719  
720  
721  
722  
723  
724  
725  
726  
727  
728  
729  
730  
731  
732  
733  
734  
735  
736  
737  
738  
739  
740  
741  
742  
743  
744  
745  
746  
747  
748  
749  
750  
751  
752  
753  
754  
755  
756  
757  
758  
759  
760  
761  
762  
763  
764  
765  
766  
767  
768  
769  
770  
771  
772  
773  
774  
775  
776  
777  
778  
779  
780  
781  
782  
783  
784  
785  
786  
787  
788  
789  
790  
791  
792  
793  
794  
795  
796  
797  
798  
799  
800  
801  
802  
803  
804  
805  
806  
807  
808  
809  
810  
811  
812  
813  
814  
815  
816  
817  
818  
819  
820  
821  
822  
823  
824  
825  
826  
827  
828  
829  
830  
831  
832  
833  
834  
835  
836  
837  
838  
839  
840  
841  
842  
843  
844  
845  
846  
847  
848  
849  
850  
851  
852  
853  
854  
855  
856  
857  
858  
859  
860  
861  
862  
863  
864  
865  
866  
867  
868  
869  
870  
871  
872  
873  
874  
875  
876  
877  
878  
879  
880  
881  
882  
883  
884  
885  
886  
887  
888  
889  
890  
891  
892  
893  
894  
895  
896  
897  
898  
899  
900  
901  
902  
903  
904  
905  
906  
907  
908  
909  
910  
911  
912  
913  
914  
915  
916  
917  
918  
919  
920  
921  
922  
923  
924  
925  
926  
927  
928  
929  
930  
931  
932  
933  
934  
935  
936  
937  
938  
939  
940  
941  
942  
943  
944  
945  
946  
947  
948  
949  
950  
951  
952  
953  
954  
955  
956  
957  
958  
959  
960  
961  
962  
963  
964  
965  
966  
967  
968  
969  
970  
971  
972  
973  
974  
975  
976  
977  
978  
979  
980  
981  
982  
983  
984  
985  
986  
987  
988  
989  
990  
991  
992  
993  
994  
995  
996  
997  
998  
999  
1000

## **New Developments in the Treatments of Child Anxiety**

1  
2  
3  
4 In tandem with developments in treatment research, there has been progress in our  
5  
6 understanding of the basic processes that drive and maintain anxiety in children. We  
7  
8 now have a fuller understanding of the cognitive and behavioural processes that  
9  
10 underlie early anxiety (e.g. Alfano, Beidel, & Turner, 2002) and, in particular, we are  
11  
12 learning much about processes that may be present in the families of anxious children  
13  
14 (Wood, McLeod, Sigman, Hwang, & Chu, 2003). Moreover, we are beginning to  
15  
16 develop a picture of how anxiety is transmitted from parent to child (Murray, Cooper,  
17  
18 Creswell, Schofield, & Sack, 2007). Unfortunately, many of these theoretical and  
19  
20 basic science developments have not yet been translated into developmentally  
21  
22 appropriate interventions for this younger population. In particular, although many  
23  
24 treatment trials have now attempted to include the parents in treatment, to date, this  
25  
26 has often been done in an idiosyncratic and atheoretical fashion, leading to  
27  
28 inconsistent and confusing results.  
29  
30  
31  
32  
33  
34  
35

36 Over the last ten years a growing evidence base has formed to compare individual  
37  
38 CBT administered with children to similar treatments with accompanying sessions for  
39  
40 parents. Table 1 summarises features of a number of randomised controlled trials that  
41  
42 have compared standard child-focussed CBT (henceforth CCBT) to CCBT with an  
43  
44 added family component, or different forms of family-based CBT (henceforth FCBT).  
45  
46 The results to date present a very mixed picture, with some studies reporting  
47  
48 statistically significant improvements from the addition of a family component (e.g.  
49  
50 Barrett, Dadds, & Rapee, 1996; Heyne, King, Tonge et al., 2002; Mendlowitz,  
51  
52 Manassis, Bradley et al., 1999) and others reporting no added value of FCBT over and  
53  
54 above CCBT (e.g. Barrett, 1998; Nauta, Scholing, Emmelkamp, & Minderaa, 2003;  
55  
56 Spence, Donovan, & Brechman-Toussaint, 2000). We will now review some of the  
57  
58  
59  
60  
61  
62  
63  
64  
65

1  
2  
3  
4 possible explanations for the discrepant results, in order to consider how to best  
5  
6 involve parents in treatment so that optimal therapeutic outcomes for highly anxious  
7  
8 children might be achieved.  
9

### 10 11 12 *Inclusion Criteria*

13  
14  
15 We sought to find all trials that conducted a formal randomised trial, comparing  
16  
17 FCBT with CCBT for the treatment of childhood anxiety. Trials that exclusively  
18  
19 treated participants with obsessive-compulsive disorder, posttraumatic stress disorder,  
20  
21 or simple phobia were excluded on the grounds that the outcomes and clinical  
22  
23 demands of these disorders may differ significantly from those for more typical  
24  
25 anxiety disorders (generalised anxiety disorder, separation anxiety disorder, social  
26  
27 phobia, agoraphobia with/out panic disorder). The following databases were  
28  
29 searched: Medline (1950 – August 2006); Psycinfo (1967 – August 2006). The  
30  
31 following search terms were used: Every combination of: Phobia / Panic / Anxious /  
32  
33 *Anxiety and* Child / youth / adolescent *and* Trial; School refuser *and* trial; School  
34  
35 refusal *and* trial. Where the authors were also aware of trials conducted since the  
36  
37 publication of a case series these were also included (Bodden et al (submitted)  
38  
39 following Bogels & Siqueland (2006)). This yielded 9 trials comparing FCBT and  
40  
41 CCBT, which have formed the core of this review. However, in addition, we also  
42  
43 included papers that reported a trial of FCBT, but did not carry out a formal  
44  
45 randomised comparison of this with CCBT. Whilst these studies are not informative  
46  
47 as to whether and in what circumstances CCBT or FCBT is more favourable, they do  
48  
49 allow an investigation of the factors that might be associated with the success or  
50  
51 otherwise of FCBT. This yielded a further ten papers. Most of the trials included  
52  
53 children who met criteria for a formal anxiety diagnosis. However, two studies  
54  
55  
56  
57  
58  
59  
60  
61  
62  
63  
64  
65

1  
2  
3  
4 (Dadds, Spence, Holland, Barrett, & Laurens, 1997; Rapee, Kennedy, Ingram,  
5  
6 Edwards, & Sweeney, 2005) also included a proportion of children who whilst  
7  
8 severely anxious, did not meet formal criteria for a diagnosis. We took the decision to  
9  
10 include these studies, as they are large and well-conducted, and cast considerable light  
11  
12 on the issues in question.  
13  
14

### 15 16 17 *Review methods* 18

19  
20 Most of the studies discussed in this paper are very small, and their conclusions are  
21  
22 necessarily tentative. One solution to this problem is to combine the results of these  
23  
24 studies in a ‘meta-analysis’ (Field, 2006 submitted). However, it was decided that a  
25  
26 meta-analysis was not appropriate at this stage in the development of the field,  
27  
28 because of the very substantial method variance that was apparent between the papers.  
29  
30 It would not have been possible to carry out a single meta-analysis of all studies, and  
31  
32 instead, a number of smaller analyses, combining small groups of studies with  
33  
34 comparable designs would have been necessary. It is likely that a formal meta-  
35  
36 analysis, as soon as this is appropriate, will cast considerable light on some of the  
37  
38 issues discussed in this paper.  
39  
40  
41  
42  
43

### 44 45 **What impacts on the success of FCBT?** 46

47  
48  
49 INSERT TABLE ONE ABOUT HERE  
50  
51

### 52 53 54 *How is outcome measured?* 55

56  
57 A range of measures are typically administered to participants before and after  
58  
59 treatment, including: diagnostic interviews; clinician ratings of improvement; parent-  
60  
61  
62  
63  
64  
65



1  
2  
3  
4 report questionnaires and child-report questionnaires. Conclusions often differ  
5  
6 depending on which outcome measure is being referred to (questionnaires, diagnostic  
7  
8 interviews, clinician ratings of improvement, teacher reports or observational  
9  
10 measures) so we now provide a summary of the findings, according to each of these  
11  
12 types of outcome measure.  
13  
14

15  
16  
17 *Questionnaire measures*  
18

19  
20 Based on child self-report questionnaire measures, a fairly consistent picture emerges  
21  
22 in the randomised trials, in which no treatment differences (FCBT v CCBT) are found  
23  
24 post-treatment across all the studies using a range of measures: Multidimensional  
25  
26 Anxiety Scale for Children (MASC-C) (Wood, Piacentini, Southam-Gerow, Chu, &  
27  
28 Sigman, 2006); Revised Children's Manifest Anxiety Scale (RCMAS), (Barrett et al.,  
29  
30 1996; Cobham, Dadds, & Spence, 1998; Heyne et al., 2002; Mendlowitz et al., 1999;  
31  
32 Spence et al., 2000); Fear Survey Schedule for Children – Revised (FSSC-R/II),  
33  
34 (Barrett, 1998; Barrett et al., 1996; Heyne et al., 2002); State Trait Anxiety Inventory  
35  
36 for Children (STAIC), (Bodden, Bogels, Nauta et al., submitted; Cobham et al.,  
37  
38 1998); Social worries Questionnaire – Pupil version (SWQ-PU), Spence Children's  
39  
40 Anxiety Scale (SCAS;social phobia subscale), (Spence et al., 2000); Fear  
41  
42 Thermometer, (Heyne et al, 2002); Screen for Child Anxiety Related Emotional  
43  
44 Disorders (SCARED-71) and Children's Automatic Thoughts Scale (CATS), (Bodden,  
45  
46 Bogels et al., submitted). There were only two exceptions. First, the finding of Heyne  
47  
48 et al (2002) that children in the parent and teacher intervention reported significantly  
49  
50 less 'Fear of the Unknown', 'Physiological anxiety' and 'Worry and oversensitivity' on  
51  
52 these specific subscales compared to children in the 'child treatment only' condition in  
53  
54 the study of school-refusing children, although as in the other studies, no differences  
55  
56  
57  
58  
59  
60  
61  
62  
63  
64  
65

1  
2  
3  
4 were found on questionnaire total scores. Interestingly, in this study, child self-  
5  
6 reports reduced the most in the condition in which the child was not involved in  
7  
8 treatment at all. This will be discussed further below. Second, the finding that  
9  
10 children in Barrett's (1998) study of group CBT with family involvement gave lower  
11  
12 fear scores on the FSSC-R than controls at the 12 month follow-up assessment (but no  
13  
14 other time points).  
15  
16  
17  
18  
19

20 The weight of evidence certainly suggests that based on child self-report  
21  
22 questionnaires, there is no significant difference between CCBT and FCBT.  
23  
24  
25  
26

27 Whilst it has been suggested that perhaps child self-report questionnaires (such as the  
28  
29 RCMAS and STAI-C) lack sufficient sensitivity to detect differences between  
30  
31 interventions (e.g. Barrett et al., 1996; Dadds et al., 1997), more recently, specific  
32  
33 symptom-based measures (e.g. SCARED and SCAS) as well as more idiosyncratic  
34  
35 measures (e.g. Fear thermometer) have been developed, yet differences between  
36  
37 interventions have still not been found. Another explanation is that young people may  
38  
39 not be reliable reporters of change over time, which requires a consistent 'yardstick'  
40  
41 against which to measure oneself. However, if this were the case, we may expect to  
42  
43 find age-effects on pre-post differences in those studies that have particularly broad  
44  
45 age ranges, but these have not been found (Bodden, Bogels et al., submitted). In fact,  
46  
47 for the most part, parent-report questionnaire measures also fail to distinguish  
48  
49 between CCBT and FCBT, again using a variety of different measures: Child  
50  
51 Behavior Checklist Internalising Scale (CBCL-internalising), (Barrett, 1998; Barrett  
52  
53 et al., 1996 - mothers and fathers report; Bodden, Bogels et al., submitted; Cobham et  
54  
55 al., 1998); SCARED-71(p), (Bodden, Bogels et al., submitted); State Trait Anxiety  
56  
57  
58  
59  
60  
61  
62  
63  
64  
65

1  
2  
3  
4 Inventory – Parents’ Version (STAIC-P), (Bodden, Bogels et al., submitted); Social  
5  
6 Skills Questionnaire (parent), (Spence et al., 2000). There are two notable exceptions  
7  
8 to this pattern, however. In their study of children with anxiety-based school refusal,  
9  
10 Heyne et al (2002) reported that mothers rated a greater decrease in internalising  
11  
12 scores on the widely used CBCL for both of the treatment conditions that involved  
13  
14 parents and teachers, compared to the treatment involving children alone (although no  
15  
16 differences were found based on fathers' reports). Second, in a recent study by Wood  
17  
18 et al (2006) there was a faster decline ('medium' effect size) in parent report scores on  
19  
20 the Multidimensional Anxiety Scale for Children – Parent Report Version (MASC(p))  
21  
22 following FCBT in comparison to CCBT. However, there are some notable features  
23  
24 to the content of these studies that differentiate them from other studies, as will be  
25  
26 discussed below.  
27  
28  
29  
30  
31  
32

33  
34 In summary, based on both child and parent reports on questionnaire measures, the  
35  
36 bulk of evidence fails to find significant differences between treatments with and  
37  
38 without family components, with a few notable exceptions. Both of these methods of  
39  
40 assessment will, however, be subject to reporter bias. For example, parent and child  
41  
42 reports of anxiety commonly differ (e.g. Federer, Stuber, Margraf, Schneider, &  
43  
44 Herle, 2001). Significant discrepancies can also be found between two adults' reports  
45  
46 on a child's level of anxiety (e.g. mother- teacher; mother-father) and in some cases  
47  
48 discrepancies between ratings have been found to relate to parental anxiety (e.g.  
49  
50 Briggs-Gowan, Horwitz, Schwab-Stone, Leventhal, & Leaf, 2000; Treutler & Epkins,  
51  
52 2003 see below). In order to overcome this difficulty, a number of studies have also  
53  
54 included measures that are designed to provide a more objective rating of child  
55  
56 anxiety.  
57  
58  
59  
60  
61  
62  
63  
64  
65

1  
2  
3  
4  
5  
6 *'Objective' measures of child anxiety*  
7

8 To achieve more objective ratings of anxiety, data have also been gathered based on  
9 clinician and teacher reports and on observable behaviours. Diagnosis according to a  
10 structured interview is typically considered to be the 'gold-standard' outcome measure.  
11 Accordingly, these data, specifically the proportion of children free of an anxiety  
12 diagnoses on completion of treatment, are presented in table 1.  
13  
14  
15  
16  
17  
18  
19  
20  
21

22 *Anxiety disorder diagnosis*  
23

24 Of the seven listed RCTs that compared CCBT to FCBT and provided diagnostic data  
25 following treatment, only one study reported a statistically significant difference  
26 between the number of children in each condition who were free of an anxiety  
27 disorder diagnosis following treatment (Barrett et al., 1996). However, as shown in  
28 table 1, in five of the seven studies, the pattern of results favours FCBT. Certainly,  
29 the lack of statistical significance in the majority of these studies needs to be  
30 considered in relation to the power of the given sample sizes to detect differences  
31 between treatment groups where effects would be expected to be smaller than when  
32 comparing treatment and no-treatment conditions. For example, a meta-analysis of  
33 comparisons of CBT to wait-list controls has concluded that 56% of patients are likely  
34 to be free of an anxiety diagnosis following CBT (e.g. Cartwright-Hatton et al., 2004).  
35 To detect an absolute difference between treatment conditions, with a moderate effect  
36 size (i.e. 30%) with 80% power at the 5% significance level, would require 135  
37 patients per treatment group - a condition that is far from met by any of the trials  
38 conducted to date. It is notable that the largest RCT to be carried out to date with  
39 children with anxiety disorders (Bodden, Bogels et al., submitted) was in fact the only  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60  
61  
62  
63  
64  
65

1  
2  
3  
4 to find that more children were free of an anxiety diagnosis following CCBT than  
5  
6 FCBT. Specific characteristics of the family component of this study are discussed in  
7  
8 more detail below.  
9

10  
11  
12  
13 Whilst it is helpful that all the trials described above used a uniform measure (the  
14  
15 Anxiety Disorder Interview Schedule for Children– Child / Parent Report Versions  
16  
17 (ADIS- C/P); (Silverman & Nelles, 1988)) to assign diagnoses, the extent to which  
18  
19 this is in fact an 'objective' measure is questionable. When using this measure,  
20  
21 diagnoses are based on children and/or parents reporting the presence of a specified  
22  
23 set of symptoms and a clinician awarding a severity rating (based on the child and  
24  
25 parent interviews) over or above a given cut off value (4 out of 8) for either the child  
26  
27 or parent report. Allocation of diagnostic status is, therefore, like questionnaire  
28  
29 measures, based primarily on parent or child report and may be subject to bias.  
30  
31  
32 Furthermore, although the majority of the studies report acceptable reliability for  
33  
34 clinician severity ratings within studies (e.g. Barrett et al., 1996; Bodden, Bogels et  
35  
36 al., submitted; Cobham et al., 1998; Spence, Donovan, & Brechman-Toussaint, 1999;  
37  
38 Wood, Piacentini, Bergman, McCracken, & Barrios, 2002; Wood et al., 2006) it is not  
39  
40 clear whether the ratings that are reported are reliable across centres or trials. An  
41  
42  
43  
44 honourable exception to this is the recent study by Bodden, Bogels et al., (submitted)  
45  
46 in which ADIS interviewers were required to establish reliable ratings with  
47  
48 experienced interviewers from another centre, namely the Child and Adolescent  
49  
50 Anxiety Disorder Clinic at Temple University, Philadelphia, USA.  
51  
52

53  
54  
55  
56 *Clinician ratings of improvement*  
57  
58  
59  
60  
61  
62  
63  
64  
65

1  
2  
3  
4 Although subject to similar limitations, a number of the studies have also included  
5  
6 clinicians' ratings of improvement, conducted by assessors blind to the treatment  
7  
8 condition. Barrett et al., (1996), for example, rated improvement (on a scale from 0 to  
9  
10 6) based on the ADIS-C/P reports and direct questions about the following  
11  
12 dimensions: (a) clinical global impression; (b) overall functioning; (c) overall anxiety;  
13  
14 (d) avoidant behaviours; (e) family disruption; (f) parental perceived ability to deal  
15  
16 with the child; and (g) child's perceived ability to deal with the feared situations. At  
17  
18 post-treatment, mean ratings were higher for the FCBT condition for clinical global  
19  
20 impression, change of family disruption by the child's behaviour and change in  
21  
22 parent's perception of their own ability to deal with their child's behaviour. In other  
23  
24 words, following treatment where parents were involved in treatment, those scales  
25  
26 that relate to how parents manage the child's anxiety improve. Over the longer-term,  
27  
28 however, these advantages seem to generalise, with superiority for FCBT for all seven  
29  
30 of the dimensions at the 6 and 12 month follow-up assessments. In terms of the  
31  
32 clinical significance of these findings, however, it is notable that the actual difference  
33  
34 in mean scores for these scales was small, with means falling around 5.0 for CBT and  
35  
36 5.4 for FCBT. Similar findings were reported by Barrett (1998) based on the results  
37  
38 of her CCBT or FCBT group interventions. Specifically, at post-treatment, group  
39  
40 FCBT was superior for change in family disruption as a result of the child's behaviour  
41  
42 and change in the parent's perception of their own ability to deal with the child's  
43  
44 behaviour; and at 12 month follow-up this was true of six out of seven of the  
45  
46 dimensions assessed. Using a more general rating scale, Wood et al (2006) provided  
47  
48 ratings of the Clinical Global Impression (CGI) Improvement Scale and found that  
49  
50 three times more children in the FCBT condition were rated as 'completely recovered';  
51  
52 or 'very much better' by independent assessors, than in the CCBT condition, and this  
53  
54  
55  
56  
57  
58  
59  
60  
61  
62  
63  
64  
65

1  
2  
3  
4 was a highly significant finding. In contrast, using the scales developed by Barrett et  
5 al (1996), and Cobham et al (1998), and the Global Assessment of Functioning (GAF)  
6 Scale (American Psychiatric Association, 1994), Heyne et al (2002) did not find  
7  
8 group differences at post-treatment or follow-up assessment. Once again, we are left  
9  
10 with a mixed set of findings, which does not seem to be fully accounted for by  
11  
12 measurement differences.  
13  
14  
15  
16  
17  
18  
19

### 20 *Teacher report*

21  
22 In order to attempt to overcome the difficulties inherent in child and parent report,  
23  
24 and, as a result, clinician ratings based on parent and/or child report, an additional  
25  
26 approach is to draw on other reporters who are in a position to observe the impact of  
27  
28 child anxiety, for example, school personnel. The primary limitation of this method,  
29  
30 however, is that correlations are typically low between parents, children and teachers  
31  
32 (e.g. Federer et al, 2001) and teachers have been found to underreport emotional  
33  
34 symptoms among their pupils (e.g. Youngstrom, Loeber, & Stouthamer-Loeber,  
35  
36 2000). It is perhaps unsurprising, therefore, that Heyne et al (2002) found no group  
37  
38 differences based on teacher report questionnaires administered to school teachers or  
39  
40 counsellors.  
41  
42  
43  
44  
45  
46

### 47 *Observational measures*

48  
49 Two studies are notable for the inclusion of observational data to provide more clearly  
50  
51 objective outcome measures. Spence et al (2000), in their study of children with  
52  
53 Social Phobia, used both observations of peer interactions in the classroom and  
54  
55 playground and a clinic based role-play to assess children's social skills pre- and post-  
56  
57 treatment. Although treated children showed slight improvements in assertiveness  
58  
59  
60  
61  
62  
63  
64  
65

1  
2  
3  
4 compared to the wait-list group, these differences failed to reach significance and no  
5  
6 clear differences between treatment conditions were apparent. In contrast, Heyne et al  
7  
8 (2002) found a significant effect of treatment group on their school based measure:  
9  
10 percentage of school attendance. In this study, participants were children who were  
11  
12 refusing school due to anxiety-related difficulties. Specifically, children in the child  
13  
14 plus parent and teacher training group were attending school significantly more than  
15  
16 children in the child-treatment only condition. Children in the parent and teacher  
17  
18 training (with no child treatment) condition were also attending school more than the  
19  
20 child treatment only group, but differences between this group and the other two  
21  
22 groups did not reach significance.  
23  
24  
25  
26  
27  
28

29 While these are isolated sets of results that require further exploration, these studies  
30  
31 are to be lauded for their use of objective outcome measurements that target variables  
32  
33 specific to the objectives of the particular study.  
34  
35  
36  
37

### 38 *Cost-effectiveness*

39

40 To date, only one study has considered the cost-effectiveness of CBT in comparison  
41  
42 to FCBT for the treatment of anxiety disorders (Bodden, Dirksen, Bogels et al.,  
43  
44 submitted). In this study, societal and healthcare costs were found to be comparable  
45  
46 for CCBT and FCBT. However, the costs per anxiety-free child and costs per Quality  
47  
48 Adjusted Life Year (QALY) favoured individual CCBT. As this study is based on  
49  
50 data from the only study in which the pattern of results has favoured CCBT over  
51  
52 FCBT, it will be important for other studies to assess whether these findings can be  
53  
54 generalised.  
55  
56  
57  
58  
59  
60  
61  
62  
63  
64  
65



1  
2  
3  
4 *Outcomes in the non-comparative trials*  
5

6 In the non-comparative studies of FCBT, a similar picture emerges, with outcome  
7 being dependent upon the measure that is selected. In all but one of the studies where  
8 diagnoses were used, these showed the predicted positive effects of FCBT at post  
9 treatment. The single study that did not show a significant reduction of anxiety  
10 diagnoses as a result of FCBT (Dadds et al., 1997) was an early intervention /  
11 prevention project, which screened schoolchildren and offered FCBT to those with  
12 significantly elevated anxiety scores. Notably, significant improvements did occur at  
13 some follow up points (discussed below) and on other indices of anxiety (mostly on  
14 parent and clinician ratings of child and family functioning). The limited success of  
15 FCBT according to post-treatment diagnoses in this study may have arisen for a  
16 number of reasons: First, the families in this study were identified as part of a  
17 screening process, and had not chosen to present themselves for assistance. The  
18 motivation of the families in this study may, therefore, have been different to those in  
19 the other studies. Second, for ethical reasons, many of the children who presented the  
20 most severe difficulties during the screening process were offered individual  
21 treatment, rather than the FCBT under scrutiny, meaning that only 75% of  
22 participating children had a full anxiety diagnosis. This removal of children with the  
23 most room for improvement is likely to have impacted negatively on overall  
24 outcomes.  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50

51 The majority of the non-comparative studies of FCBT, like the FCBT v CCBT  
52 studies, used parent and child questionnaire measures, and a number used teacher or  
53 clinician ratings too. The response on these measures was variable. The majority of  
54 studies found no significant effect of FCBT on at least one of their measures, the  
55  
56  
57  
58  
59  
60  
61  
62  
63  
64  
65

1  
2  
3  
4 exception being Rapee (2000) which showed positive outcomes of FCBT on all  
5  
6 measures. However, in examining which instruments / indices / reporters are most  
7  
8 and least sensitive to change in FCBT, no clear pattern is yet emerging.  
9

10  
11  
12 With regards to observational measures, two non-comparative studies of FCBT have  
13  
14 employed observational measures of outcome. King, Tonge, Heyne et al., (1998)  
15  
16 used school attendance as an outcome measure, in their study of FCBT for school  
17  
18 refusal. They reported that according to this indicator, outcomes for FCBT were  
19  
20 superior to those of a control group, whereas no difference was apparent for some less  
21  
22 objective measures (particularly those rated by children and by teachers). Rapee,  
23  
24 Kennedy, Ingram, Edwards, & Sweeney (2005) employed five laboratory measures of  
25  
26 behavioural inhibition (including interactions with peers, adults, acceptance of  
27  
28 medical procedures and novel toy). Unfortunately, although the trial did result in  
29  
30 reduction in parent-reported anxiety, these benefits did not manifest on these  
31  
32 measures of inhibition.  
33  
34  
35  
36  
37  
38  
39

#### 40 ***When is outcome assessed?***

41  
42 The results summarised so far have all been from immediately or soon after the  
43  
44 completion of treatment. Clearly this introduces a source of variation in the time  
45  
46 between initial assessment and treatment completion as the length of treatment  
47  
48 packages differs, for example, from 8 sessions (although the time period during which  
49  
50 this took place is not specified; Heyne et al, 2002) to up to 16 sessions (Wood et al,  
51  
52 2006).  
53  
54  
55  
56  
57  
58  
59  
60  
61  
62  
63  
64  
65

1  
2  
3  
4 Where studies have included longer-term follow-up assessments, these do generally  
5  
6 indicate that treatment effects continue to accrue after treatment completion, a process  
7  
8 that Nauta and colleagues (2001) refer to as 'sowing and reaping', i.e. during  
9  
10 treatment, skills are trained, which can be used to overcome the child's anxiety after  
11  
12 treatment. In the one study in which the CCBT condition performed better than  
13  
14 FCBT (Bodden, Bogels et al, submitted) this appeared particularly to be the case for  
15  
16 FCBT, which did not significantly differ from CCBT in terms of proportion of  
17  
18 children who were free of an anxiety disorder diagnosis at the 3 month follow up.  
19  
20 Other studies have reported maintenance of therapeutic outcome (e.g. Cobham et al,  
21  
22 2001; Spence et al, 2000) or, where gains have been made, these were fairly  
23  
24 equivalent for participants in CCBT and FCBT conditions at 6 and 12 months (e.g.  
25  
26 Barrett et al, 1996; Barrett, 1998). In the one study that has followed children beyond  
27  
28 one year, Barrett et al (2001) reported that the proportion of children that were free of  
29  
30 an anxiety disorder diagnosis at 6 year follow-up was exactly the same for the CCBT  
31  
32 and FCBT conditions.  
33  
34  
35  
36  
37  
38  
39

40 A number of the non-comparative FCBT studies have also examined the maintenance  
41  
42 of treatment effects over the longer term. In most cases, the benefits that were  
43  
44 apparent at post-treatment were maintained, or slightly improved at 12 months follow-  
45  
46 up (King et al., 1998; Manassis, Mendlowitz, Scapillato et al., 2003; Rapee, 2000;  
47  
48 Shortt, Barrett, & Fox, 2001; Silverman, Kurtines, Ginsburg et al., 1999). In the  
49  
50 single study that did not show greater reductions in anxiety diagnoses, compared to a  
51  
52 control group, at post treatment (Dadds et al., 1997), significantly greater  
53  
54 improvement for FCBT was apparent at the six-month follow up. Interestingly, this  
55  
56 superiority of FCBT over the control group then phased in and out over the next 18  
57  
58  
59  
60  
61  
62  
63  
64  
65

1  
2  
3  
4 months, disappearing at 12 months, but re-emerging at 24 months, although it should  
5  
6 be noted that not all children in this study met criteria for a full anxiety disorder at  
7  
8 intake.  
9

10  
11  
12  
13 Taken as a whole, the results seem to suggest that at longer-term follow-up there is  
14  
15 little difference in outcome for CCBT or FCBT (regardless of which performed better  
16  
17 at post-treatment). This is not to say, however, that shorter term treatment outcomes  
18  
19 should not be taken in to account, as the presence of anxiety in childhood presents a  
20  
21 clear social and emotional risk. Effective treatment of child anxiety has been found,  
22  
23 for example, to be associated with improved school performance and school  
24  
25 functioning (Wood et al., 2006). It makes sense, therefore, that the sooner treatment  
26  
27 makes an impact, the more associated risks can be prevented from becoming  
28  
29 established.  
30  
31  
32  
33  
34  
35

36 It does appear, however, that when gains are achieved using FCBT, these can be  
37  
38 expected to persist into the short or medium term, at the very least. There is also  
39  
40 some evidence that the treatment may have a ‘slow release’ effect, whereby benefits  
41  
42 accrue as the child (and their parents) develop.  
43  
44  
45

### 46 47 ***Who does the treatment work for?***

#### 48 49 *Age effects*

50  
51  
52 As shown in table 1, the majority of treatment trials have recruited children from 7  
53  
54 years of age (plus or minus one year), with upper age limits ranging between 10 and  
55  
56 18 years. As discussed above, on the whole the studies are short on statistical power  
57  
58 to address their main effects, so their ability to reliably detect age effects and  
59  
60  
61  
62  
63  
64  
65

1  
2  
3  
4 interactions between age and treatment conditions are limited. In the majority of  
5  
6 cases, age effects are not reported (Wood et al., 2006; Mendlowitz et al., 1999;  
7  
8 Barrett, 1998; Heyne et al, 2002; Spence et al, 2000) although there are a few notable  
9  
10 exceptions: Barrett et al (1996) divided their participants into younger (7-10 years)  
11  
12 and older (11-14 years) groups for analysis. Most striking was that for the younger  
13  
14 group, 100% of participants were free of an anxiety disorder diagnosis post-treatment  
15  
16 in the FCBT condition, in comparison to 55.6% in the CCBT condition. For older  
17  
18 children, however, there was no advantage for FCBT over CCBT. The same pattern  
19  
20 of results was found at the 12 month follow-up assessment. These findings were not,  
21  
22 however, replicated by Bodden, Bogels et al., (submitted) or Nauta et al (2003) who  
23  
24 found no difference in efficacy for FCBT when comparing older and younger  
25  
26 children. In fact, in the Bodden et al study, CCBT was significantly more effective  
27  
28 among younger (7-12 years) than older children (13-18 years).  
29  
30  
31  
32  
33  
34  
35

36 In the studies of FCBT in comparison to wait list, a number of investigators examined  
37  
38 the effect of age on outcome. Shortt, Barrett, & Fox (2001) although studying a  
39  
40 comparatively small age range (6.5 to 10 years) reported that age was not a moderator  
41  
42 of treatment outcome – i.e. that the intervention was equally effective for the younger  
43  
44 and older participants. Similarly, in their study of FCBT for 7 – 14 year old children,  
45  
46 (Dadds et al., 1997) reported that there were no effects of age, when comparing 7-10  
47  
48 year olds and 11-14 year olds. A similar result was reported by Berman, Weems,  
49  
50 Silverman, & Kurtines (2000) in their study of factors influencing FCBT outcome  
51  
52 across a number of trials where FCBT was compared to wait list. In children aged  
53  
54 between 6 and 17 years, age was found to have no effect on success of treatment,  
55  
56 where success was defined as withdrawal of DSM diagnosis or ‘major reduction in  
57  
58  
59  
60  
61  
62  
63  
64  
65

1  
2  
3  
4 severity' of anxiety. On examination of the means from the 'success' and 'failure'  
5  
6 groups, there was a one year age difference, with younger children doing better than  
7  
8 the older ones. However, this difference was not statistically significant, and no firm  
9  
10 conclusions can, therefore, be drawn. Silverman et al., (1999) also showed that age  
11  
12 did not moderate the effects of FCBT in their sample of 6-16 year olds, when entered  
13  
14 as a covariate into their analyses. Similar results were reported by Rapee, (2000) and,  
15  
16 finally, by Dadds et al., (1997) who found no difference comparing 7-10 year olds  
17  
18 with 11-14 year olds. It should be noted, however, that this latter study found no  
19  
20 significant effect of FCBT on anxiety diagnoses when compared to a control group at  
21  
22 the immediate post treatment assessment, and also treated a proportion of children  
23  
24 who did not meet full criteria for an anxiety disorder  
25  
26  
27  
28  
29  
30

31 Only one study has focussed on the needs of very young children. Rapee, Kennedy,  
32  
33 Ingram, Edwards, & Sweeney (2005) used a parent-only intervention in an attempt to  
34  
35 modify behavioural inhibition in children aged 36-62 months. Although the  
36  
37 intervention did not have a substantial effect on behavioural inhibition, it was found to  
38  
39 substantially reduce post-treatment anxiety diagnoses in those who received the  
40  
41 treatment (although only 90% of children had diagnoses at the outset of the study),  
42  
43 indicating that family based CBT may be effective for young children, despite (or  
44  
45 perhaps because of) not involving the children in treatment.  
46  
47  
48  
49  
50

51 In many of the studies, the division between 'older' and 'younger' has been made at the  
52  
53 mid-point of the sample, rather than based on a theoretical rationale, and due to the  
54  
55 differences in the age-ranges used, the definitions of 'older' and 'younger' in these  
56  
57 studies differ markedly. It is likely that the actual age ranges considered in these  
58  
59  
60  
61  
62  
63  
64  
65

1  
2  
3  
4 analyses is of crucial importance. Certainly, the influence of significant others  
5  
6 appears to vary with the age of the child. For example, adults tend to hold greater  
7  
8 authority for younger children, whereas peers have increasing influence over  
9  
10 adolescents (Rosenberg, 1979). More specifically, 9 to 11 year olds have been  
11  
12 reported to depend more on parents for social support and appraisal information than  
13  
14 on peers (Furman & Buhrmester, 1985) or teachers (Baker & Entwisle, 1987). Later  
15  
16 relationships with parents, however, are more conflictual and less supportive, and  
17  
18 relationships with peers become more important sources of social support  
19  
20 (Buhrmester & Furman, 1990). The relative influence of parents and others on the  
21  
22 development, maintenance and recovery of anxiety problems in children remains  
23  
24 unclear. However, literature from broader areas of developmental psychology points  
25  
26 us to more theoretically defined age groups by which to assess interactions between  
27  
28 treatment condition and development.  
29  
30  
31  
32  
33  
34

### 35 36 *Gender effects*

37  
38 Again, due to limited power, only a minority of studies have considered treatment  
39  
40 outcome in relation to child gender. Barrett et al (1996) found no differences for male  
41  
42 participants across treatment conditions, however more female participants were  
43  
44 diagnosis free following FCBT than CCBT both at post-treatment and 12 month  
45  
46 follow-up. This result was replicated by Cobham et al (1998) but only for those  
47  
48 children who had a parent who also experienced high levels of anxiety. This raises  
49  
50 another important consideration when trying to assess for whom the different  
51  
52 treatments work best, which will be discussed in the next section.  
53  
54  
55  
56  
57  
58  
59  
60  
61  
62  
63  
64  
65

1  
2  
3  
4 A number of non-comparative FCBT studies have examined the role of gender in  
5  
6 outcomes of FCBT. In all cases, no moderating influence was found (Berman et al.,  
7  
8 2000; Dadds et al., 1997; Manassis et al., 2003; Rapee, 2000; Shortt et al., 2001;  
9  
10 Silverman et al., 1999).

11  
12  
13  
14  
15 It should be noted, however, that in the majority of the studies described here, the  
16  
17 sample sizes did not give the studies adequate power to compare the efficacy of  
18  
19 treatments for male and female participants. An additional factor that has, thus far,  
20  
21 been neglected, has been the moderating role of participating parents' gender on  
22  
23 treatment outcome. There is some evidence from one study (Bögels & Phares,  
24  
25 submitted) that male and female parents may have a different role to play in the  
26  
27 development and maintenance of child anxiety. If this is the case, it is possible, that  
28  
29 they also have different roles to play in the treatment of anxiety once it is established.  
30  
31  
32  
33

34  
35  
36 *Is the parent highly anxious?*  
37

38 It is well established that there is an increased rate of anxiety disorders amongst the  
39  
40 parents of anxious children. Specifically, anxiety disorders amongst the mothers of  
41  
42 anxious children are significantly raised above the base rate (Last, Hersen, Kazdin,  
43  
44 Francis, & Grubb, 1987; Last, Hersen, Kazdin, Orvaschel, & Perrin, 1991). Indeed, a  
45  
46 recent, bottom-up, family history study found that two thirds of the mothers of children  
47  
48 presenting for treatment of an anxiety disorder themselves had a current anxiety disorder  
49  
50 (Cooper, Fearn, Willetts, Seabrook, & Parkinson, 2006). Furthermore, in 1977,  
51  
52 Windheuser demonstrated that where mothers themselves were diagnosed as being highly  
53  
54 anxious, standard behavioural treatment for child phobias worked less well than when the  
55  
56 behavioural treatment was preceded by treatment of the mother's fear. Similar  
57  
58  
59  
60  
61  
62  
63  
64  
65



1  
2  
3  
4 conclusions were drawn by Cobham et al (1998) who divided parents into 'high' and 'low'  
5 anxiety groups based on their self-report on the Spielberger State-Trait Anxiety Inventory  
6 (trait version). Where both the child and parent were anxious, efficacy of the CBT  
7  
8 intervention was dramatically reduced (82.4% recovered where parents were not highly  
9  
10 anxious; 38.9% where child and parent were highly anxious). As highlighted above, this  
11  
12 effect seemed to be primarily accounted for by outcomes for female participants. The  
13  
14 effect also seemed to be particularly apparent among older children (11-14 years) for  
15  
16 whom only 20% of those with an anxious parent were diagnosis-free following CBT,  
17  
18 compared to 86% of children with low-anxious parents. By adding four sessions of  
19  
20 'Parent Anxiety Management' (PAM), however, the number of children who were  
21  
22 diagnosis-free following treatment increased to 76.5% for children who had a highly  
23  
24 anxious parent.  
25  
26  
27  
28  
29  
30  
31  
32

33  
34 Recently, Wood et al (2006) and Boddien, Bogels et al (submitted) have both included  
35  
36 more systematic diagnostic assessments of parental anxiety using the ADIS-IV (Brown,  
37  
38 DiNardo, & Barlow, 1994). Wood et al (2006) failed to find an association between  
39  
40 children's treatment outcome and parents' anxiety status (although caution must be  
41  
42 maintained as diagnostic assessments were only completed on a subgroup of parents,  
43  
44 n=32). With a much larger sample, Boddien, Bogels et al., (submitted), like Cobham et  
45  
46 al., (1998) however, found that when one or both parents had an anxiety disorder,  
47  
48 successful child treatment outcome was substantially reduced. Younger children (9-12  
49  
50 years) were particularly negatively effected, based on questionnaire scores, if one or both  
51  
52 parents had an anxiety disorder, whereas older children (13-17 years) improved regardless  
53  
54 of parental anxiety levels. In contrast to Cobham et al, (1998) they did not find an  
55  
56 advantage for FCBT where parents suffered an anxiety disorder and, in fact, more of  
57  
58  
59  
60  
61  
62  
63  
64  
65

1  
2  
3  
4 these children fell in to the normal range on questionnaire scores of anxiety symptoms  
5  
6 following CCBT compared to FCBT.  
7  
8  
9

10  
11 Several of the studies that examined FCBT without comparison to CCBT examined the  
12  
13 moderating role of parental anxiety upon treatment outcome. Rapee (2000) measured  
14  
15 parental anxiety using the Beck Anxiety Inventory. It was shown that fathers' anxiety  
16  
17 was significantly related to outcome, with a positive correlation between fathers' and  
18  
19 children's anxiety at the end of treatment and at follow up. Interestingly, no effect of  
20  
21 mothers' anxiety was found. Similarly, Crawford and Manassis (2001) found a  
22  
23 significant association between fathers' pre-treatment somatising symptoms and change in  
24  
25 child self-reported anxiety. In both the study by Crawford & Manassis and a parallel  
26  
27 paper from Rapee's clinic (Creswell, Schneiring & Rapee, 2005) a reduction in maternal  
28  
29 anxiety was reported following FCBT. Change in maternal anxiety, therefore, represents  
30  
31 a confound in both of these studies. Indeed the findings remain entirely consistent with  
32  
33 the proposal that maternal anxiety acts against positive child treatment outcome, unless it  
34  
35 is addressed clinically.  
36  
37  
38  
39  
40  
41

42  
43 In the studies by Dadds and colleagues (Dadds, Holland, Spence et al., 1999; Dadds et al.,  
44  
45 1997) schoolchildren were screened for anxiety symptoms, and, unless very severely  
46  
47 effected, were offered FCBT or a wait list control. Parental anxiety (as measured by the  
48  
49 'Stress, Anxiety and Depression Scale') was found to predict 'severity of diagnosis' at the  
50  
51 post-treatment assessment, but not presence or absence of a diagnosis. This effect had  
52  
53 disappeared at the two-year follow up point. Also, the analyses took the form of  
54  
55 regressions, employing all participants, whether they were in the treatment or the control  
56  
57  
58  
59  
60  
61  
62  
63  
64  
65

1  
2  
3  
4 group. Therefore, it is not clear whether the deleterious impact of parental anxiety was  
5  
6 equally present for both untreated and treated children.  
7  
8  
9

10 Toren, Wolmer, Rosental et al., (2000) reported an FCBT case series in which a number  
11  
12 of treatment moderating factors were explored. Children who had a mother with an  
13  
14 anxiety disorder (diagnosed using a structured clinical interview – SADS-L) showed  
15  
16 statistically greater reductions in their anxiety, as measured by the Revised Children’s  
17  
18 Manifest Anxiety Scale, than children who did not have a clinically anxious mother. The  
19  
20 mean reduction for children of anxious mothers was a substantial 9.5 points, compared to  
21  
22 less than five points for children of non anxious parents. This seemingly anomalous  
23  
24 finding will be discussed further below, in relation to the type of maternal anxiety  
25  
26 disorder suffered.  
27  
28  
29  
30

31  
32  
33 In their study of outcome predictors across two FCBT trials, Berman et al., (2000) found  
34  
35 that parental psychological functioning had a significant impact on both the child’s  
36  
37 diagnosis and severity of symptoms, post treatment. In particular, higher parental scores  
38  
39 on the ‘Fear Questionnaire’ were associated with poorer outcomes, as were high  
40  
41 obsessive-compulsive, psychoticism, depression, hostility and paranoia scores. However,  
42  
43 these outcome predictors were stronger for families that had received individual treatment  
44  
45 than they were for families that had taken part in a group treatment. This is an intriguing  
46  
47 finding, and suggests that group treatment may buffer against some of the damaging  
48  
49 effects of parental mental ill-health. This study also indicated that the effects of parental  
50  
51 mental health (in particular self-report depression scores) were more closely associated  
52  
53 with outcome for younger children, than for older children.  
54  
55  
56  
57  
58  
59  
60  
61  
62  
63  
64  
65

1  
2  
3  
4 A crucial factor in interpreting these findings is the nature of the family component that is  
5 delivered. There seem to be two ways in which parental anxiety could interfere with the  
6 child's response to treatment. First, there is evidence to suggest that parental anxiety is  
7 associated with patterns of parenting that are themselves anxiogenic (Murray et al., 2007);  
8 so, an anxious mother's expressed fear and avoidance of feared stimuli, for example,  
9 could militate against a treatment aimed at promoting her child's approach of feared  
10 stimuli, or similarly, an anxious mother's over-controlling parenting style could militate  
11 against a treatment aimed at promoting her child's autonomy. In the study by Cobham et  
12 al (1998) the family intervention aimed to isolate one component of other family  
13 programmes, namely Parent Anxiety Management. Despite the positive effect on child  
14 treatment outcome, however, no reduction was found in parental self-reported trait  
15 anxiety following this intervention (in fact, the positive child outcome effect was found  
16 despite the fact that in some cases the parent who received PAM was not the anxious  
17 parent in the family). A key aspect of the PAM intervention was psychoeducation and it  
18 is possible that (rather than actually changing parent anxiety) this intervention increased  
19 parents' sense of responsibility for change by alerting them to the role of parental anxiety  
20 in the development and maintenance of child anxiety, promoting parents to act in a less  
21 'anxiogenic manner' around the child. This explanation may also account for the lack of  
22 an effect of parental anxiety in the study by Wood et al (2006). In this study, parental  
23 anxiety was not addressed specifically, but instead, those parental behaviours that have  
24 been consistently found to be associated with child anxiety were targeted, i.e. high levels  
25 of intrusiveness, low levels of autonomy granting, and the frequent failure to model a  
26 solution-focussed approach to problems (e.g. Rapee, 1997; Wood et al., 2003). By  
27 changing these parental behaviours, the intervention may have effectively 'trumped' the  
28 potential negative effect of parental anxiety on child outcome. Whilst Boddien, Bogels et  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60  
61  
62  
63  
64  
65

1  
2  
3  
4 al (submitted) included sessions aimed at modifying problematic family interactions and  
5  
6 promote modeling of courageous behaviour, it is not clear whether this consistently  
7  
8 involved specifically targeting anxiogenic parenting characteristics relating to  
9  
10 intrusiveness and autonomy granting.  
11  
12  
13  
14

15 Second, family treatments commonly require the mother to provide support and  
16  
17 encouragement for children's exposure to feared stimuli (Dadds & Barrett, 2001) and the  
18  
19 mother's own anxiety may interfere with this requirement. According to this suggestion,  
20  
21 it would be likely that different types of parental anxiety problems would create different  
22  
23 degrees of interference with child outcome. For example, a mother with social phobia  
24  
25 may well experience difficulties in encouraging her socially anxious child to engage in  
26  
27 more social activities, whereas a mother with GAD may not show such clearly observable  
28  
29 anxiety and avoidance. A recent study by Cooper et al., (submitted) provides tentative  
30  
31 evidence for this suggestion. In this case series of children treated for anxiety disorders,  
32  
33 in contrast to children whose mothers had GAD who did as well in treatment as children  
34  
35 whose mothers were free from anxiety, children of mothers with social phobia responded  
36  
37 particularly poorly. Similarly, the study by Toren et al (2000) found that the children of  
38  
39 the clinically anxious mothers (all but one of whom had GAD) showed more  
40  
41 improvement after FCBT than those who did not have an anxious mother.  
42  
43  
44  
45  
46  
47  
48  
49

50 In summary, the balance of evidence seems to support the suggestion that parental anxiety  
51  
52 militates against optimal treatment outcomes. Additional interventions may be useful in  
53  
54 overcoming this. However, whether it is parental anxiety that needs to be targeted, or  
55  
56 specific parenting behaviours that may be exacerbated by parental anxiety has yet to be  
57  
58 established. To the authors' knowledge, this has not been systematically examined in the  
59  
60  
61  
62  
63  
64  
65

1  
2  
3  
4 anxiety literature. However, Crawford and Manassis (2001) provide evidence that family  
5  
6 dysfunction and frustration predicted child treatment outcome. Furthermore there is  
7  
8 evidence from other quarters that where parental mental health is associated with poor  
9  
10 child outcomes, this relationship is mediated, in large part, by deficits in parenting (Berg-  
11  
12 Nielsen, Vikan, & Dahl, 2002). This suggests that targeting either the parental mental  
13  
14 illness, or modifying the parenting behaviour might have a positive impact on the child.  
15  
16  
17  
18  
19

20 ***What type of anxiety problem is the child experiencing?***  
21

22 With the exception of three studies, all of the studies summarised in table 1 recruited  
23  
24 children with a range of anxiety disorders. In most studies, these included a principal  
25  
26 diagnosis of Separation Anxiety Disorder, Social Phobia, Overanxious Disorder (where  
27  
28 DSM-III or earlier was used) and Generalised Anxiety Disorder. In some cases, principal  
29  
30 diagnoses of Agoraphobia with or without Panic Disorder and Specific Phobias were also  
31  
32 included. Where it has been examined, the FCBT / CCBT comparison trials have  
33  
34 concluded that there is no difference in outcome according to child diagnosis (Barrett et  
35  
36 al, 1996), although these studies have not been among those to include, for example,  
37  
38 specific phobias as principal diagnoses. Certainly, a lack of difference for treatment  
39  
40 outcomes for different anxiety disorders would be surprising given the substantial  
41  
42 differences in therapeutic input provided for the different disorders in adult treatment  
43  
44 programmes, the extreme example being successful treatments of specific phobias being  
45  
46 conducted in single-sessions (e.g. Ost, 1996).  
47  
48  
49  
50  
51  
52  
53

54 FCBT and CCBT have, however, been compared for two specific anxiety diagnoses:  
55  
56 Social Phobia (Spence et al, 2000) and anxiety-based School Refusal (Heyne et al., 2002).  
57  
58 For Social Phobia, the authors concluded that there was a non-significant trend towards  
59  
60  
61  
62  
63  
64  
65

1  
2  
3  
4 superior results when parents were involved in treatment (although the differences were  
5  
6 fairly substantial and arguably clinically significant). In contrast, for School Refusal, the  
7  
8 attendance and adjustment of children who received parent and teacher training was  
9  
10 equivalent, whether or not the children were involved in treatment.  
11  
12  
13  
14

15 In the non-comparative FCBT trials, a number of attempts have been made to examine the  
16  
17 relationship of child's type of diagnosis to the outcome of treatment. However, in the  
18  
19 majority of cases (perhaps due to lack of power) no impact of type of diagnosis has been  
20  
21 found (Berman et al., 2000; Shortt et al., 2001). However, in their comparison on FCBT  
22  
23 and wait list for a range of childhood anxiety disorders, Manassis et al (2003) reported  
24  
25 that, according to mothers' reports, there was more improvement for children with a  
26  
27 diagnosis of GAD than for those with specific phobias (including separation anxiety  
28  
29 disorder).  
30  
31  
32  
33  
34

35  
36 Who participates in treatment will be subject to further discussion below. However, the  
37  
38 available evidence suggests that future studies need to consider the specific role that  
39  
40 family factors may play in relation to the development and maintenance of specific  
41  
42 disorders. A recent demonstration of this specificity has been given by Murray et al.  
43  
44 (2007) who found that mothers with social phobia differed from mothers with GAD and  
45  
46 control mothers in their encouragement of their infants' interaction with a friendly  
47  
48 stranger, and that this was significantly associated with the infants' subsequent response  
49  
50 to the stranger.  
51  
52  
53  
54  
55

56 **How severe is the child's anxiety disorder?**  
57  
58  
59  
60  
61  
62  
63  
64  
65

1  
2  
3  
4 In addition to the type of anxiety disorder, it may also be important to consider the level  
5  
6 of anxiety severity the child experiences. Whilst studies have generally found that  
7  
8 severity of child anxiety disorder is associated with treatment outcome for both CCBT  
9  
10 (e.g. Southam-Gerow, Kendall, & Weersing, 2001) and FCBT (Dadds et al., 1997; Rapee,  
11  
12 2000), the non-comparative trial of FCBT by Dadds et al (1997) showed that whether the  
13  
14 child's anxiety was at diagnosable, or only at sub-clinical levels, did not impact on  
15  
16 outcome. Whether severity is an indicator of which type of treatment is most effective,  
17  
18 has not been established. Studies are certainly likely to differ in terms of their severity  
19  
20 and complexity, with some studies representing clinical referrals only (e.g. Bodden,  
21  
22 Bogels et al., submitted; Mendlowitz et al., 1999) and others including self-referrals from  
23  
24 community (e.g. Barrett et al., 1996; Barrett, 1998; Cobham et al., 1998; Nauta et al,  
25  
26 2003; Spence et al., 2000) or school-based (e.g. Wood et al., 2006) advertisements.  
27  
28 Uniformity in measures used and methods of establishing reliability across centres will  
29  
30 help clarify this situation, but it is notable that the one study that clearly states that  
31  
32 participants were referrals to specialist mental health services and provide diagnostic data  
33  
34 report by far the lowest levels of efficacy from FCBT (Bodden et al, submitted), perhaps  
35  
36 reflecting the complexity of family circumstances of children referred to specialist mental  
37  
38 health services.  
39  
40  
41  
42  
43  
44  
45  
46

#### 47 *Comorbidity*

48  
49  
50  
51

52 None of the controlled trials of CBT/FCBT have examined the effect of comorbidity on  
53  
54 outcomes. However, some data (albeit mixed in its findings) is present in the non  
55  
56 comparative studies of FCBT. Specifically, in examining the effects of comorbidity in  
57  
58 their trial of FCBT, Manassis et al (2003) showed that when scores on the Social Anxiety  
59  
60  
61  
62  
63  
64  
65



1  
2  
3  
4 Scale for children were considered, the most socially anxious children did better in  
5  
6 individual treatment than they did in group treatment. It is notable that, these children  
7  
8 were also found to be more anxious generally, and more depressed than the less socially  
9  
10 anxious children, which may have accounted for these results. Certainly, Berman et al.,  
11  
12 (2000) showed that, whilst number and type of diagnoses was not associated with  
13  
14 outcome, comorbid diagnosis of depression was, with depressed children fairing less well  
15  
16 than those who were not depressed. Although the very small number of children who  
17  
18 qualified for a diagnosis of depression made this comparison tentative, it was also shown  
19  
20 that children's self report of depression symptoms on the Children's Depression Inventory  
21  
22 was associated with outcome, with high scorers recovering less often. Similarly, having  
23  
24 high self-report trait anxiety, as measured by the Spielberger Children's Anxiety  
25  
26 Inventory was associated with poorer outcomes.  
27  
28  
29  
30  
31  
32

### 33 **What does the treatment comprise?**

#### 34 *Treatment format – group versus individual*

35  
36  
37  
38 Just one study has directly compared group and individual FCBT. Manassis et al.,  
39  
40 (2003) gave parents and children 12 sessions each, delivered in either group or  
41  
42 individual format, for a range of anxiety disorders. The results indicated that, in  
43  
44 general, differences between the conditions were minimal. However, there was an  
45  
46 indication that clinician ratings of outcome were superior in the individual treatment,  
47  
48 although the overall size of this difference between the two groups was rather small.  
49  
50 Similarly, there may have been a slight benefit of individual treatment for children  
51  
52 who had high social anxiety scores (although see above for an alternative  
53  
54 interpretation of these results). Other data also suggest no advantage of either method  
55  
56  
57  
58  
59  
60  
61  
62  
63  
64  
65

1  
2  
3  
4 of delivery. Although not directly comparing individual and group delivery, two  
5  
6 studies by Paula Barrett and colleagues (Barrett et al., 1996; and Barrett, 1998) used a  
7  
8 very similar treatment package, delivered in one trial individually, and in the other in  
9  
10 group format, and found a similar pattern of results, with an advantage for FCBT  
11  
12 (albeit not statistically significant) in the case of Barrett (1998).  
13  
14

15  
16  
17 Although not directly comparing group and individual treatments, Berman et al.,  
18  
19 (2000) were able to compare the efficacy of these two approaches, in the treatment of  
20  
21 a range of anxiety disorders across two related trials. They found that there was no  
22  
23 significant difference in successful outcome in the two formats on any of their  
24  
25 outcomes.  
26  
27  
28  
29

30  
31 As we have discussed, the majority of studies have compared CBT conducted with the  
32  
33 child, to a similar treatment with the addition of parent sessions. However, a small  
34  
35 number of studies have now suggested that involving the child may not necessarily  
36  
37 add to efficacy and conducting sessions with parents alone may be equally beneficial.  
38  
39 For example, Heyne et al (2002) reported equivalent improvements among school  
40  
41 refusers in their Parent and Teacher Training conditions, regardless of whether the  
42  
43 child also received treatment. Similarly, on measures of anxiety and depression,  
44  
45 Mendlowitz et al (1999) found no difference between child only, parent only and  
46  
47 parent and child group conditions. Intriguing results have also been reported by  
48  
49 Lynehan et al (2005) who did not find significant differences between their FCBT  
50  
51 treatment (comprising 10 sessions of parents and children attending parallel groups)  
52  
53 and a bibliotherapy condition in which parents were provided with a book about  
54  
55 managing their child's anxiety with only five accompanying parent sessions.  
56  
57  
58  
59  
60  
61  
62  
63  
64  
65

1  
2  
3  
4  
5  
6 As CBT comes from a tradition of individual work it is not surprising that this  
7  
8 approach has been the default position in RCTs for child anxiety to date. However,  
9  
10 there are a number of factors that suggest that, particularly when working with  
11  
12 younger children, doing the bulk of the work with parents may be preferable.  
13  
14 Certainly for younger children, the primary influences on anxious affect have been  
15  
16 argued to be observation of others (e.g. de Rosnay, Cooper, Tsigaras, & Murray,  
17  
18 2006; Gerull & Rapee, 2002) fear information from others (e.g. Field & Lawson,  
19  
20 2003), expectations of others (Creswell, Brewin, & O'Connor, 2006) and associated  
21  
22 parent-child interaction behaviours (e.g. Wood et al, 2003). One recent study has  
23  
24 indicated that treatment directed entirely towards parents can be efficacious in the  
25  
26 treatment of young anxious children. Rapee et al., (2005) identified young children  
27  
28 (up to 62 months in age) who scored highly on measures of behavioural inhibition  
29  
30 (90% also met criteria for an anxiety diagnosis). Their parents were offered six group  
31  
32 sessions focussing on psychoeducation, management of the child's anxiety symptoms,  
33  
34 cognitive restructuring of parents' own worries, and principles of exposure. At the  
35  
36 end of treatment, there was a reduction in anxiety diagnoses in both the intervention  
37  
38 and the control group, which was slightly but significantly greater for the intervention  
39  
40  
41  
42  
43  
44  
45 group.

46  
47  
48  
49 In addition, by working with parents to help them to overcome their child's anxiety  
50  
51 problems, therapists are able to promote the parents' sense of control over their child's  
52  
53 mood and behaviour, both of which have been found to be associated with parents'  
54  
55 perceptions of their child's anxiety (Wheatcroft & Creswell, in press); and  
56  
57  
58  
59 counterproductive parental behaviours (e.g. Bugental & Johnston, 2000). This  
60  
61  
62  
63  
64  
65

1  
2  
3  
4 approach may also have the added advantages of facilitating parents to incorporate the  
5  
6 strategies learned more widely in to the child's lifestyle, reducing stigma on the child  
7  
8 due to having to attend mental health services, and instead increasing the amount of  
9  
10 time the child spends in age-appropriate surroundings (e.g. school rather than mental  
11  
12 health clinics).  
13

14  
15  
16  
17 Examining a wider literature, it is clear that treatments for other childhood disorders,  
18  
19 in particular those characterised by behaviour problems, and particularly those in  
20  
21 younger children, are now heavily directed towards parents, in preference to treating  
22  
23 the child directly. Both short and long term results for these approaches have been  
24  
25 highly encouraging (e.g. Webster-Stratton, Hollinsworth, & Kolpacoff, 1989), and  
26  
27 there is now evidence that even unmodified behavioural parenting interventions, such  
28  
29 as the Webster-Stratton 'Incredible Years' Programme, may have substantial impacts  
30  
31 on internalising as well as externalising symptoms (Cartwright-Hatton, McNally,  
32  
33 White, & Verduyn, 2005).  
34  
35  
36  
37  
38  
39

#### 40 *Treatment Dosage*

41  
42 It is notable that the amount of treatment that families and / or children have received  
43  
44 varies markedly across the trials (see table one). Whilst the majority of trials include  
45  
46 12 sessions for children (60-120 mins) and 12 sessions for parents (Barrett et al.,  
47  
48 1996; Barrett, 1998; Mendlowitz et al. 1999; Spence et al, 2000), others have had  
49  
50 from 8 sessions (Heyne et al, 2002) to a maximum of 16 sessions for both children  
51  
52 and parents (Wood et al, 2006). Typically the number of child and parent sessions is  
53  
54 equal, except for a few instances, for example the family CBT provided by Bodden et  
55  
56 al (submitted) involved 3 sessions for the child alone, 2 for the child and parent, 5 for  
57  
58  
59  
60  
61  
62  
63  
64  
65

1  
2  
3  
4 the parents alone and 3 for the whole family. In this instance it could be suggested that  
5  
6 a lack of continuity with specific family members may have diluted the effects of  
7  
8 family treatment. However, the amount of therapist input per se does not appear to be  
9  
10 clearly associated with therapeutic outcome, as illustrated dramatically by Nauta et al  
11  
12 (2003) who found no difference in the number of participants who were diagnosis free  
13  
14 following a family intervention with seven more sessions.  
15  
16  
17  
18  
19

20 In the non-comparative trials, there is even greater variance in the dosage that families  
21  
22 have received, and the amount of this that was ‘family’ CBT. The length of overall  
23  
24 treatment varied from six sessions of 90 minutes (Rapee et al., 2005) to 24 sessions of  
25  
26 90 minutes (Manassis, Mendlowitz, Scapillato et al., 2002), with the amount of  
27  
28 dedicated ‘family’ input varying from three session of one hour (Dadds et al., 1997) to  
29  
30 12 sessions of 90 minutes (Manassis et al., 2002). In examining these data (which are  
31  
32 outlined in table 1), there is some small indication that the dosage might partially  
33  
34 account for the level of success achieved by the end of the trial. The two studies that  
35  
36 had least impact on their primary outcome measures (Dadds et al., 1997; Rapee et al.,  
37  
38 2005) were the two trials with the smallest amount of dedicated ‘family’ input (three  
39  
40 sessions of 60 minutes; and six sessions of 90 minutes, respectively). However, it  
41  
42 should be noted that these two trials are distinguishable in other ways from the other  
43  
44 studies (see above and below for details) and, therefore, the brevity of their  
45  
46 interventions is likely to be no more than a partial explanation for their outcomes.  
47  
48  
49  
50  
51  
52  
53

#### 54 *Content of treatment*

55  
56 In the vast majority of studies, CCBT has been delivered based closely on the Coping  
57  
58 Cat treatment package developed by Kendall and colleagues (Kendall & Hedtke,  
59  
60  
61  
62  
63  
64  
65

1  
2  
3  
4 2006), with varying degrees of abbreviation from 10 to 16 sessions. The content of  
5  
6 FCBT, (across both the comparative and non-comparative trials) however, has not  
7  
8 followed a standard approach. In some treatment packages, the parent sessions have  
9  
10 been devised to parallel the CCBT programme closely (e.g. Mendlowitz et al., 1999;  
11  
12 Silverman et al., 1999; Toren et al., 2000) with the primary aim of providing parents  
13  
14 with the necessary information to facilitate their children in putting the programme in  
15  
16 to practice. In others, parents are, in addition, explicitly given coaching in behaviour  
17  
18 management (e.g. Dadds et al., 1997; Heyne et al., 2002; King et al., 1998; Rapee,  
19  
20 2000); managing their own emotions and modelling positive responses to anxiety (e.g.  
21  
22 Barrett, 1998; Barrett et al., 1996; Bodden, Bogels et al., submitted; Cobham et al.,  
23  
24 1998; Dadds et al., 1997; Heyne et al., 2002; Rapee, 2000; Shortt et al., 2001; Spence  
25  
26 et al., 2000); modifying dysfunctional parents' cognitions (e.g. Bodden, Bogels et al.,  
27  
28 submitted; King et al., 1998; Nauta et al., 2003); and improving family  
29  
30 communication (e.g. Barrett, 1998; Barrett et al., 1996; Bodden, Bogels et al.,  
31  
32 submitted; Shortt et al., 2001). Because of the tendency for interventions to include a  
33  
34 range of strategies, we currently lack any information about which components of the  
35  
36 treatment are necessary and sufficient. An important exception to this is Cobham's  
37  
38 (1998) study, in which Parent Anxiety Management was delivered as an isolated  
39  
40 family treatment component, with notable success for families in which a parent also  
41  
42 experienced high levels of anxiety.  
43  
44  
45  
46  
47  
48  
49  
50  
51

52 What is most striking about these varied approaches is the common lack of explicit  
53  
54 reference to developmental models of anxiety, which typically emphasise parental  
55  
56 intrusiveness (e.g. Chorpita & Barlow, 1998; Ginsburg & Schlossberg, 2002; Hudson  
57  
58 & Rapee, 2004; Rubin & Mills, 1991), in the selection and sequence of family  
59  
60  
61  
62  
63  
64  
65

1  
2  
3  
4 intervention strategies. Parental intrusiveness refers to a tendency for parents to take  
5  
6 over tasks at the expense of the child performing them independently. This is  
7  
8 hypothesised to preclude children's opportunities to develop competence in novel  
9  
10 situations, restricting the development of cognitions associated with self-efficacy and  
11  
12 confidence and, thereby, creating a risk for the development or maintenance of  
13  
14 anxiety disorders (e.g. Chorpita & Barlow, 1998; Rubin & Mills, 1991). A number of  
15  
16 well-conducted studies have now supported an association between parental  
17  
18 intrusiveness and child anxiety (see Wood et al, 2003). Recently, however, Wood et al  
19  
20 (2006) have developed a family intervention based specifically on theory and research  
21  
22 relating to these anxiogenic parenting styles (e.g. Rapee, 1997; Wood et al, 2003) to  
23  
24 target parental intrusiveness and autonomy-granting by, for example, teaching parents  
25  
26 to give children choices rather than making decisions for them, and allowing children  
27  
28 to learn by trial and error. This study demonstrated an additional benefit of FCBT  
29  
30 over and above CCBT, based on independent ratings of improvement and change in  
31  
32 parents' ratings of anxiety, although the results were comparable to other trials that  
33  
34 have not had such specific targets. This begs the question, clearly, of whether the  
35  
36 different treatments are associated with specific changes in family processes or more  
37  
38 generic treatment effects (e.g. from parents feeling supported by engagement in  
39  
40 treatment). To date there is a lack of reported evidence about processes of change in  
41  
42 FCBT for anxious children. As reported above, despite a focus on parent anxiety  
43  
44 management, Cobham et al (1998) did not find a reduction in parental anxiety  
45  
46 following treatment, yet found a significant advantage from including this component  
47  
48 in terms of child anxiety outcome. This study was limited, however, by reliance on a  
49  
50 general measure of parental trait anxiety (STAI: Spielberger, 1983) which may have  
51  
52 lacked the sensitivity to detect change as a result of the intervention. Using a more  
53  
54  
55  
56  
57  
58  
59  
60  
61  
62  
63  
64  
65

1  
2  
3  
4 clinically oriented measure (BAI: Beck, Ward, Mendelson, Mock, & Erbaugh, 1961),  
5  
6 Creswell, Schniering & Rapee (2005) did find a significant reduction in maternal  
7  
8 anxiety following FCBT. In this study, children's and mothers' threat interpretations  
9  
10 were also assessed based on responses to ambiguous scenarios, and reductions in both  
11  
12 children's and their mothers' anxious interpretation was found post-treatment. The  
13  
14 authors argued that a change in maternal anxious cognitions may be of particular  
15  
16 significance as a stronger association was found between parent and child anxious  
17  
18 cognitions compared to parent and child anxiety more generally. This is consistent  
19  
20 with the finding of Barrett et al (1996) that children in the FCBT condition had lower  
21  
22 scores post-treatment on threat interpretation in comparison with both the CCBT and  
23  
24 waitlist conditions. There were no differences, however, between avoidant responses  
25  
26 selected by children, in response to ambiguous scenarios, following CCBT or FCBT,  
27  
28 suggesting that the effective inclusion of families in treatment may act, at least in part,  
29  
30 through changing parental influences on children's developing anxious cognitions.  
31  
32 Whether this is a result of changes in parental behaviours (for example, by promoting  
33  
34 autonomy and allowing children to challenge threat-related cognitions) remains to be  
35  
36 investigated.  
37  
38  
39  
40  
41  
42  
43  
44

### 45 **Conclusions and Future Directions**

46  
47  
48  
49 This overview of the extant literature has allowed us to draw few firm conclusions. It  
50  
51 seems very likely that FCBT, in most cases, is better than nothing. However, it is less  
52  
53 clear that it is significantly better or worse than CCBT alone. When FCBT has been  
54  
55 found to have substantially different outcomes than CCBT, this has been for a  
56  
57 restricted set of outcome measures only, although notably, when examining the gold  
58  
59  
60  
61  
62  
63  
64  
65



1  
2  
3  
4 standard outcome (i.e. diagnosis), as can be seen in table 1, there is a trend towards  
5  
6 superiority for FCBT.  
7  
8  
9

10 We have learnt that the positive results of FCBT, when seen at post-treatment  
11  
12 assessment, are generally maintained or even improved at follow up. However, with a  
13  
14 few notable exceptions, follow up has been for just 12 months. It is important that  
15  
16 these studies continue to follow up their treated samples, in order that the efficacy of  
17  
18 FCBT over the longer term may be established.  
19  
20  
21  
22  
23

24 To our surprise, we have learnt very little about the relative efficacy of FCBT for  
25  
26 older and for younger children. It seems sensible to hypothesise that FCBT might  
27  
28 have more impact on younger children who are under greater influence from their  
29  
30 family than older children and adolescents. However, this review was unable to  
31  
32 confirm or disconfirm this most basic of hypotheses. The majority of studies did not  
33  
34 attempt to compare the efficacy of FCBT for older and younger participants. In those  
35  
36 studies that did, differences were rarely found, but it was not clear whether this was an  
37  
38 accurate finding, or an artefact of low power in the studies. Only one study attempted  
39  
40 to treat very young children (Rapee et al., 2005) but this study did not compare FCBT  
41  
42 and CCBT (and not all children met criteria for an anxiety disorder) so although the  
43  
44 results were promising, it is difficult to draw any firm conclusions about the necessity  
45  
46 of the parental component. We hope that future studies will be powered in order that  
47  
48 they might examine the utility of FCBT with respect to the age of the child, and that  
49  
50 the whole range of childhood and adolescence might be considered.  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60  
61  
62  
63  
64  
65

1  
2  
3  
4 The gender of the child, and indeed of the parent is, we hypothesise, likely to  
5  
6 moderate the impact of FCBT. However, very few studies have examined this factor,  
7  
8 and those that have, have generally been underpowered to do so. It is to be hoped that  
9  
10 future studies will take this simple factor into account. However, we must also bear in  
11  
12 mind that the finding that different treatments are indicated for boys and girls could be  
13  
14 politically difficult, and it will always be necessary to consider the needs of the  
15  
16 individual child. This will also be the case (perhaps even more so) if different  
17  
18 interventions are indicated for the mother and the father and it will be essential to  
19  
20 identify whether gender effects are accounted for by the individual's parental role (i.e.  
21  
22 who is the primary care-taker) or, for example, social learning effects relating to a  
23  
24 mis/match between parent and child gender (e.g. Bandura, 1969).  
25  
26  
27  
28  
29  
30

31 The conclusions that may be drawn regarding the interaction of FCBT and parental  
32  
33 anxiety upon outcome are much richer, though still somewhat confusing. We can  
34  
35 probably conclude, with some degree of confidence, that where a parent is anxious  
36  
37 and this is not addressed, outcome for the child is also likely to be worse. There is also  
38  
39 some indication that where a parent is anxious, FCBT might be more beneficial to the  
40  
41 child than CCBT, particularly if the child is pre-adolescent. Whether it is parental  
42  
43 anxiety per se or associated cognitive (e.g. Wheatcroft & Creswell, in press) or  
44  
45 behavioural (e.g. Murray et al., 2007) features of the parent-child relationship that  
46  
47 need to be addressed within treatment requires systematic evaluation. We perhaps  
48  
49 also need to pay more attention to the role of severity of child anxiety, other comorbid  
50  
51 conditions and the child's and the parent's specific diagnosis. There is some  
52  
53 emerging evidence to suggest that these have an impact on the efficacy of FCBT, but  
54  
55 as yet, no clear conclusions are possible.  
56  
57  
58  
59  
60  
61  
62  
63  
64  
65

1  
2  
3  
4  
5  
6 Finally, one of the difficulties in this review has been the lack of homogeneity in the  
7  
8 FCBT that has been examined. Although this has naturally arisen in an attempt to  
9  
10 explore and manipulate many of the factors that are thought to impact on children's  
11  
12 anxiety, it is far from clear what components are necessary and we now need a far  
13  
14 more systematic approach, examining the additive effects of specific treatment  
15  
16 components. Furthermore developmental models of anxiety (e.g. Chorpita & Barlow,  
17  
18 1996; Ginsburg & Schlossberg, 2002; Hudson & Rapee, 2004; Rubin & Mills, 1991)  
19  
20 now exist which have been supported by emerging research over the last decade. The  
21  
22 development of treatment trials in accordance with these models, and incorporating  
23  
24 measures of change in cognitive, behavioural and family processes, offers us both  
25  
26 benefits to clinical practice and to our scientific understanding of how environmental  
27  
28 processes contribute to the maintenance of child anxiety disorder.  
29  
30  
31  
32  
33

### 34 35 36 *New Developments in Treatment Research* 37

38  
39  
40 In concluding this review it seems fitting to mention, in addition to the trials described  
41  
42 in this paper, a number of promising new developments in the treatment of childhood  
43  
44 anxiety. In particular, a number of groups have attempted to incorporate the family  
45  
46 into treatment in ways dictated by the theories of the development and maintenance of  
47  
48 anxiety. One example is a recent case series, providing parent-only training for  
49  
50 twelve families of young anxious children (aged three to eight years) (Cartwright-  
51  
52 Hatton, McNally, & White, 2005). In this study, parents received a modified  
53  
54 behavioral parenting skills training programme, in which they were encouraged to  
55  
56 engage in relationship building activities with their child (including a play technique  
57  
58  
59  
60  
61  
62  
63  
64  
65

1  
2  
3  
4 in which control is handed to the child), to use standard, mild, consistent, behavioural  
5  
6 techniques to encourage compliant and confident behaviour in their children, and  
7  
8 were taught techniques for managing worry and fear. The results of the pilot study  
9  
10 were promising, and a randomised controlled trial of this intervention is now  
11  
12  
13 underway.

14  
15  
16  
17 Other promising family-based interventions that are in the early stages of  
18  
19 development include ‘parent-child interaction therapy’ (PCIT - Choate, Pincus,  
20  
21 Eyberg, & Barlow, 2005), and ‘Modular CBT’ (Chorpita, Taylor, Francis, Moffitt, &  
22  
23 Austin, 2004). Parent-Child Interaction Therapy was initially designed as a technique  
24  
25 for helping individual parents to manage their children’s oppositional behaviour.  
26  
27 However, since it focuses on the interaction between the parent and child, and is  
28  
29 thought to foster a sense of control in the child, the authors reasoned that it might be a  
30  
31 useful intervention for younger children with separation anxiety. The results of a  
32  
33 small case series supported this hypothesis. A similar approach, emphasising the  
34  
35 parent-child interaction with a specific emphasis on anxiogenic parental cognitions  
36  
37 and behaviours, has recently been piloted with children with mixed anxiety-disorders  
38  
39 and their primary caregiver with promising results (Creswell, Murray, Singhal,  
40  
41 Willetts & Cooper, in submission).  
42  
43  
44  
45  
46  
47  
48

49 Modular CBT (e.g. Chorpita, 2007) has also recently been developed to provide a  
50  
51 more bespoke intervention for anxious children, whilst maintaining the integrity of a  
52  
53 manual-based CBT. Children (and where necessary) their parents, are delivered a  
54  
55 selection from 13 therapy ‘modules’, including a number of core modules that all  
56  
57 cases receive. These modules are derived from well-validated manuals for the  
58  
59  
60  
61  
62  
63  
64  
65

1  
2  
3  
4 treatment of anxiety in adults and children, and the decision regarding which modules  
5  
6 a child / family should receive is based on a formalised flowchart assessing their  
7  
8 needs. An initial case series of seven children reported encouraging results (Chorpita  
9  
10 et al, 2004) These novel approaches now warrant systematic investigation.  
11  
12  
13  
14

### 15 *Future Research*

16  
17 In order to tease apart the many potential moderating factors and the complex  
18  
19 interactions between them, much larger studies are now needed. These studies will  
20  
21 need to employ multiple comparisons, manipulated or controlled across many cells. In  
22  
23 so doing, we would like to strongly encourage researchers in the field to employ  
24  
25 measures which can be used for direct comparison with existing trials but also to  
26  
27 gather outcome data from multiple informants and from observational measures (see  
28  
29 e.g. Heyne et al, 2002; Spence et al, 2000). On that basis, once a substantial number  
30  
31 of trials employing similar methodology (and making similar comparisons) are  
32  
33 available, a meta-analysis of their results would be appropriate and informative.  
34  
35 Moreover, in order to refine the (still somewhat basic) theoretical understanding on  
36  
37 which many of these interventions are predicated, future trials need to carefully  
38  
39 measure the cognitive, behavioural and family processes that they are attempting  
40  
41 to manipulate, and examine their mediating role in any improvement that is seen in  
42  
43 children's anxiety  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60  
61  
62  
63  
64  
65

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60  
61  
62  
63  
64  
65

## Acknowledgements

Sam Cartwright-Hatton was supported by MRC clinician scientist fellowship G108/604 during the preparation of this manuscript.

The authors are grateful to two anonymous reviewers for their helpful comments on an earlier draft of this manuscript.

## References

- 1  
2  
3  
4  
5  
6  
7  
8  
9 Alfano, C. A., Beidel, D. C., & Turner, S. M. (2002). Cognition in childhood anxiety:  
10 conceptual, methodological and developmental issues. *Clinical Psychology*  
11 *Review, 22*, 1209-1238.  
12  
13  
14  
15 Bandura, A. (1969). Social Learning of Moral Judgements. *Journal of Personality and*  
16 *Social Psychology, 11*, 275-279.  
17  
18  
19  
20 Barrett, P. M. (1998). Evaluation of Cognitive-Behavioral Group Treatments for  
21 Childhood Anxiety Disorders. *Journal of Clinical Child Psychology, 27*(4),  
22 459-468.  
23  
24  
25  
26  
27 Barrett, P. M., Dadds, M. R., & Rapee, R. M. (1996). Family Treatment of Childhood  
28 Anxiety: A Controlled Trial. *Journal of Consulting and Clinical Psychology,*  
29 *64*(2), 353-342.  
30  
31  
32  
33  
34 Beck, A. T., Ward, C. H., Mendelson, M., Mock, J. E., & Erbaugh, J. K. (1961). An  
35 Inventory for Measuring Depression. *Archives of General Psychiatry, 4*, 561-  
36 571.  
37  
38  
39  
40  
41 Berg-Nielsen, T. S., Vikan, A., & Dahl, A. A. (2002). Parenting related to child and  
42 parental psychopathology: A descriptive review of the literature. *Clinical*  
43 *Child Psychology and Psychiatry, 7*(4), 1359-1045.  
44  
45  
46  
47  
48 Berman, S. L., Weems, C. F., Silverman, W. K., & Kurtines, W. M. (2000). Predictors  
49 of Outcome in Exposure-Based Cognitive and Behavioral Treatments for  
50 Phobic and Anxiety Disorders in Children. *Behavior Therapy, 31*, 713-731.  
51  
52  
53  
54  
55 Bodden, D. H. M., Bogels, S. M., Nauta, M. H., de Haan, E., Ringrose, J.,  
56 Appelboom, C., et al. (submitted). Efficacy of individual versus family  
57 cognitive behavioural therapy in clinically anxious youth.  
58  
59  
60  
61  
62  
63  
64  
65

- 1  
2  
3  
4 Bodden, D. H. M., Dirksen, C. D., Bogels, S. M., Appelboom, C., Appelboom-Geerts,  
5  
6 K. C. M. M. J., Brinkman, A. G., et al. (submitted). Cost and cost-  
7  
8 effectiveness of family CBT versus individual CBT in clinically anxious  
9  
10 children.  
11
- 12  
13 Bögels, S. M. & Phares, V. (submitted). The role of the father in the etiology,  
14  
15 prevention and treatment of child anxiety: A review and new model.  
16
- 17  
18 Bögels, S. M. & Siqueland, L. (2006). Family cognitive behavior therapy for children  
19  
20 and adolescents with clinical anxiety disorders. *Journal of the American*  
21  
22 *Academy of Child and Adolescent Psychiatry*, 45 (2), 134-141.  
23
- 24  
25 Briggs-Gowan, M., Horwitz, S., Schwab-Stone, M. E., Leventhal, J., & Leaf, P.  
26  
27 (2000). Mental health in pediatric settings: Distribution of disorders and  
28  
29 factors related to service use. *Journal of the American Academy of Child &*  
30  
31 *Adolescent Psychiatry*, 39(7), 841-849.  
32
- 33  
34 Brown, T. A., DiNardo, P. A., & Barlow, D. H. (1994). *Anxiety Disorders Interview*  
35  
36 *Schedule for DSM-IV*. New York: Graywind.  
37
- 38  
39 Bugental, D. B., & Johnston, C. (2000). Parental and Child Cognitions in the Context  
40  
41 of the Family. *Annual Review of Psychology*, 51, 315-344.  
42
- 43  
44 Butler, A. C., Chapman, J. E., Forman, E. M., & Beck, A. T. (2006). The empirical  
45  
46 status of cognitive-behavioral therapy: A review of meta-analyses. *Clinical*  
47  
48 *Psychology Review*, 26(1), 17-31.  
49
- 50  
51 Cartwright-Hatton, S., McNally, D., & White, C. (2005). A New Cognitive  
52  
53 Behavioural Parenting Intervention for Families of Young Anxious Children:  
54  
55 A Pilot Study. *Behavioural & Cognitive Psychotherapy*, 33(2), 243-248.  
56
- 57  
58 Cartwright-Hatton, S., McNally, D., White, C., & Verduyn, C. (2005). Parenting  
59  
60 Skills Training: An Effective Intervention for Internalising Symptoms in  
61  
62  
63  
64  
65



1  
2  
3  
4 Younger Children? *Journal of Child and Adolescent Psychiatric Nursing*,  
5  
6 *18(2)*, 45-52.  
7

8 Cartwright-Hatton, S., McNicol, K., & Doubleday, E. (2006). Anxiety in a Neglected  
9  
10 Population: Prevalence of Anxiety Disorders in Pre-Adolescent Children.  
11  
12 *Clinical Psychology Review*, *26(7)*, 817-833.  
13  
14

15 Cartwright-Hatton, S., Roberts, C., Chitsabesan, P., Fothergill, C., & Harrington, R.  
16  
17 (2004). Systematic Review of the Efficacy of Cognitive Behaviour Therapies  
18  
19 for Childhood and Adolescent Anxiety Disorders. *British Journal of Clinical*  
20  
21 *Psychology*, *43*, 421-436.  
22  
23

24 Choate, M. L., Pincus, D. B., Eyberg, S. M., & Barlow, D. H. (2005). Parent-Child  
25  
26 Interaction Therapy for Treatment of Separation Anxiety Disorder in Young  
27  
28 Children: A Pilot Study. *Cognitive and Behavioral Practice*, *12*, 126-135.  
29  
30

31 Chorpita, B. F., Taylor, A. A., Francis, S. E., Moffitt, C., & Austin, A. A. (2004).  
32  
33 Efficacy of Modular Cognitive Behavior Therapy for Childhood Anxiety  
34  
35 Disorders. *Behaviour Therapy*, *35*, 263-287.  
36  
37

38 Cobham, V. E., Dadds, M. R., & Spence, S. H. (1998). The Role of Parental Anxiety  
39  
40 in the Treatment of Childhood Anxiety. *Journal of Consulting and Clinical*  
41  
42 *Psychology*, *66(6)*, 893-905.  
43  
44

45 Cooper, P. J., Fearn, V., Willetts, L., Seabrook, H., & Parkinson, M. (2006). Affective  
46  
47 disorders in the parents of anxious children. *Journal of Affective Disorders*,  
48  
49 *93(1-3)*, 205-212.  
50  
51

52 Cooper, P. J., Gallop, C., Willetts, L., & Creswell, C. (submitted). Treatment response  
53  
54 in child anxiety is differentially related to the form of maternal anxiety  
55  
56 disorder.  
57  
58  
59  
60  
61  
62  
63  
64  
65

- 1  
2  
3  
4 Crawford, A. M., & Manassis, K. (2001). Familial Predictors of Treatment Outcome  
5  
6 in Childhood Anxiety Disorders. *Journal of the American Academy of Child*  
7  
8 *and Adolescent Psychiatry, 40*(10), 1182-1189.  
9
- 10  
11 Creswell, C., Brewin, C., & O'Connor, T. (2006). A Longitudinal Investigation of  
12  
13 Maternal and Child 'Anxious Cognitions'. *Cognitive Therapy and Research,*  
14  
15 30(2), 135-147.  
16
- 17  
18 Creswell, C., Schniering, C. A., & Rapee, R. M. (2005). Threat interpretation in  
19  
20 anxious children and their mothers: comparison with nonclinical children and  
21  
22 the effects of treatment. *Behaviour Research and Therapy, 43*, 1375–1381.  
23
- 24  
25 Dadds, M. R., & Barrett, P. M. (2001). Psychological management of anxiety  
26  
27 disorders in childhood. *Journal of Child Psychology and Psychiatry, 42*(8),  
28  
29 999-1011.  
30
- 31  
32 Dadds, M. R., Holland, D. E., Spence, S. H., Laurens, K. R., Mullins, M., & Barrett,  
33  
34 P. M. (1999). Early Intervention and Prevention of Anxiety Disorders in  
35  
36 Children: Results at 2-Year Follow-Up. *Journal of Consulting and Clinical*  
37  
38 *Psychology, 67*(1), 145-150.  
39
- 40  
41 Dadds, M. R., Spence, S. H., Holland, D. E., Barrett, P. M., & Laurens, K. R. (1997).  
42  
43 Prevention and Early Intervention for Anxiety Disorders: A Controlled Trial.  
44  
45 *Journal of Consulting and Clinical Psychology, 65*(4), 627-635.  
46
- 47  
48 de Rosnay, M., Cooper, P. J., Tsigaras, N., & Murray, L. (2006). Transmission of  
49  
50 social anxiety from mother to infant: An experimental study using a social  
51  
52 referencing paradigm. *Behaviour Research and Therapy, 44*(8), 1165-1175.  
53
- 54  
55 Federer, M., Stuber, S., Margraf, J., Schneider, S., & Herle, J. (2001). Self report of  
56  
57 child anxiety and rating by parents and teachers. *Zeitschrift fur Differentiale*  
58  
59 *und Diagnostische Psychologie, 22*(3), 194-205.  
60  
61  
62  
63  
64  
65

- 1  
2  
3  
4 Field, A. P. (2006 submitted). How to do a Meta-Analysis.  
5  
6 Field, A. P., & Lawson, J. (2003). Fear information and the development of fears  
7  
8 during childhood: effects on implicit fear responses and behavioural  
9  
10 avoidance. *Behaviour Research and Therapy*, 41, 1277–1293.  
11  
12  
13 Ford, T., Goodman, R., & Meltzer, H. (2003). The British Child and Adolescent  
14  
15 Mental Health Survey: The Prevalence of DSM-IV Disorders. *Journal of the*  
16  
17 *American Academy of Child & Adolescent Psychiatry*, 42(10), 1203-1211.  
18  
19  
20 Gerull, F. C., & Rapee, R. M. (2002). Mother knows best: effects of maternal  
21  
22 modelling on the acquisition of fear and avoidance behaviour in toddlers.  
23  
24 *Behaviour Research and Therapy*, 40, 279–287.  
25  
26  
27 Ginsburg, G.S. & Schlossberg, M.C. (2002). Family based treatment of childhood  
28  
29 anxiety disorders. *International Review of Psychiatry*, 42, 1203-1211.  
30  
31  
32 Grave, J., & Blissett, J. (2004). Is cognitive behavior therapy developmentally  
33  
34 appropriate for young children? A critical review of the evidence. *Clinical*  
35  
36 *Psychology Review*, 24(4), 399-420.  
37  
38  
39 Heyne, D., King, N. J., Tonge, B. J., Rollings, S., Young, D., Pritchard, M., et al.  
40  
41 (2002). Evaluation of child therapy and caregiver training in the treatment of  
42  
43 school refusal. *Journal of the American Academy of Child & Adolescent*  
44  
45 *Psychiatry*, 41(6), 687-695.  
46  
47  
48 Hudson, J.L. & Rapee, R.M. (2004). From anxious temperament to disorder: An  
49  
50 etiological model of Generalized Anxiety Disorder. In R.G. Heimberg, C.L.  
51  
52 Turk, & D.S. Mennin (Eds.), *Generalized Anxiety Disorder: Advances in*  
53  
54 *Research and Practice* (pp 51-74). New York: Guilford Press.  
55  
56  
57 Kendall, P. C., & Hedtke, K. A. (2006). *Coping Cat Workbook*: Workbook Publishing  
58  
59 Inc.  
60  
61  
62  
63  
64  
65

- 1  
2  
3  
4 Kim-Cohen, J., Caspi, A., Moffitt, T. E., Harrington, H., Milne, B. J., & Poulton, R.  
5  
6 (2003). Prior juvenile diagnoses in adults with mental disorder:  
7  
8 Developmental follow-back of a prospective-longitudinal cohort. *Archives of*  
9  
10 *General Psychiatry*, 60(7), 709-717.  
11  
12  
13 King, N. J., Tonge, B. J., Heyne, D., Pritchard, M., Rollings, S., Young, D., et al.  
14  
15 (1998). Cognitive-Behavioral Treatment of School Refusing Children: A  
16  
17 Controlled Trial. *Journal of the American Academy of Child and Adolescent*  
18  
19 *Psychiatry*, 37(4), 395-403.  
20  
21  
22 Kovacs, M., Gatsonis, C., Paulauskas, S., & Richards, C. (1989). Depressive  
23  
24 Disorders in Childhood. IV. A Longitudinal Study of Comorbidity with and  
25  
26 Risk for Anxiety Disorders. *Archives of General Psychiatry*, 46, 776-782.  
27  
28  
29 Kushner, M., Sher, K., & Beitman, B. (1990). The Relation Between Alcohol  
30  
31 Problems and Anxiety Disorders. *American Journal of Psychiatry*, 147(6),  
32  
33 685-695.  
34  
35  
36 Last, C. G., Hersen, M., Kazdin, A. E., Francis, G., & Grubb, H. J. (1987). Psychiatric  
37  
38 illness in the mothers of anxious children. *American Journal of Psychiatry*,  
39  
40 144, 1580-1583.  
41  
42  
43 Last, C. G., Hersen, M., Kazdin, A. E., Orvaschel, H., & Perrin, S. (1991). Anxiety  
44  
45 disorders in children and their families. *Archives of General Psychiatry*, 48,  
46  
47 928-936.  
48  
49  
50 Manassis, K., Mendlowitz, S. L., Scapillato, D., Avery, D., Fiksenbaum, L., Freire,  
51  
52 M., et al. (2003). Group and Individual Cognitive-Behavioral Therapy for  
53  
54 Childhood Anxiety Disorders: A Randomized Trial. *Journal of the American*  
55  
56 *Academy of Child & Adolescent Psychiatry*, 41(12), 1423-1430.  
57  
58  
59  
60  
61  
62  
63  
64  
65

- 1  
2  
3  
4 Manassis, K., Mendlowitz, S. L., Scapillato, D. C., Avery, D. C., Fiksenbaum, L.,  
5  
6 Freire, M., et al. (2002). Group and Individual Cognitive-Behavioral Therapy  
7  
8 for Childhood Anxiety Disorders: A Randomized Trial. [Article]. *Journal of*  
9  
10 *the American Academy of Child & Adolescent Psychiatry*, 41(12), 1423-1430.  
11  
12 Mendlowitz, S. L., Manassis, K., Bradley, S., Scapillato, D., Miezigis, S., & Shaw, B.  
13  
14 F. (1999). Cognitive-Behavioral Group Treatment in Childhood Anxiety  
15  
16 Disorders: The Role of Parental Involvement. *Journal of the American*  
17  
18 *Academy of Child and Adolescent Psychiatry*, 38(10), 1223-1229.  
19  
20 Murray, L., Cooper, P., Creswell, C., Schofield, E., & Sack, C. (2007). The effects of  
21  
22 maternal social phobia on mother-infant interactions and infant social  
23  
24 responsiveness. *Journal of Child Psychology and Psychiatry*, 48(1), 45-52.  
25  
26  
27  
28 Nauta, M., H, Scholing, A., Emmelkamp, P. M. G., & Minderaa, R. B. (2003).  
29  
30 Cognitive-Behavioral Therapy for Children With Anxiety Disorders in a  
31  
32 Clinical Setting: No Additional Effect of a Cognitive Parent Training. *Journal*  
33  
34 *of the American Academy of Child & Adolescent Psychiatry*, 42(11), 1270-  
35  
36 1278.  
37  
38  
39  
40 Ost, L. (1996). One-session group treatment of spider phobia. *Behaviour Research*  
41  
42 *and Therapy*, 34, 707-715.  
43  
44  
45 Pine, D. S. (1997). Childhood Anxiety Disorders. *Current Opinion in Pediatrics*, 9,  
46  
47 329-339.  
48  
49  
50 Rapee, R. M. (1997). Potential Role of Childrearing Practices in the Development of  
51  
52 Anxiety and Depression. *Clinical Psychology Review*, 17(1), 47-67.  
53  
54  
55 Rapee, R. M. (2000). Group treatment of children with anxiety disorders: outcome  
56  
57 and predictors of treatment response. *Australian Journal of Psychology*, 52(3),  
58  
59 125-129.  
60  
61  
62  
63  
64  
65

- 1  
2  
3  
4 Rapee, R. M., Kennedy, S., Ingram, M., Edwards, S., & Sweeney, L. (2005).  
5  
6 Prevention and early intervention of anxiety disorders in inhibited preschool  
7  
8 children. *Journal of Consulting & Clinical Psychology, 73*(3), 488-497.  
9
- 10 Shortt, A. L., Barrett, P. M., & Fox, T. L. (2001). Evaluating the FRIENDS Program:  
11  
12 A cognitive-behavioral group treatment for anxious children and their parents.  
13  
14 *Journal of Clinical Child Psychology, 30*(4), 525-535.  
15
- 16  
17 Silverman, W. K., Kurtines, W. M., Ginsburg, G. S., Weems, C. F., White Lumpkin,  
18  
19 P., & Hicks Carmichael, D. H. (1999). Treating Anxiety Disorders in Children  
20  
21 with Group Cognitive-Behavioral Therapy: A Randomized Clinical Trial.  
22  
23 *Journal of Consulting and Clinical Psychology, 67*(6), 995-1003.  
24
- 25  
26 Silverman, W. K., & Nelles, W. B. (1988). The Anxiety Disorders Interview Schedule  
27  
28 for Children. *Journal of the American Academy of Child and Adolescent*  
29  
30 *Psychiatry, 27*(6), 772-778.  
31
- 32  
33 Southam-Gerow, M. A., Kendall, P. C., & Weersing, V. R. (2001). Examining  
34  
35 outcome variability: Correlates of treatment response in a child and adolescent  
36  
37 anxiety clinic. *Journal of Clinical Child Psychology, 30*(3), 422-436.  
38
- 39  
40 Spence, S. H., Donovan, C., & Brechman-Toussaint, M. (1999). Social Skills, Social  
41  
42 Outcomes, and Cognitive Features of Childhood Social Phobia. *Journal of*  
43  
44 *Abnormal Psychology, 108*(2), 211-221.  
45
- 46  
47 Spence, S. H., Donovan, C., & Brechman-Toussaint, M. (2000). The Treatment of  
48  
49 Childhood Social Phobia: The Effectiveness of a Social Skills Training Based,  
50  
51 Cognitive-behavioural Intervention, with and without Parental Involvement.  
52  
53 *Journal of Child Psychology and Psychiatry, 41*(6), 713-726.  
54
- 55  
56 Spielberger, C. D. (1983). State-Trait Anxiety Inventory. Palo Alto, CA: Consulting  
57  
58 Psychologist's Press.  
59  
60  
61  
62  
63  
64  
65

- 1  
2  
3  
4 Toren, P., Wolmer, L., Rosental, B., Elder, S., Koren, S., Lask, M., et al. (2000). Case  
5  
6 Series: Brief Parent-Child Group Therapy for Childhood Anxiety Disorders  
7  
8 Using a Manual-Based Cognitive-Behavioral Technique. *Journal of the*  
9  
10 *American Academy of Child and Adolescent Psychiatry*, 39(10), 1309-1312.  
11  
12  
13 Treutler, C. M., & Epkins, C. C. (2003). Are Discrepancies Among Child, Mother,  
14  
15 and Father Reports on Children's Behavior Related to Parents' Psychological  
16  
17 Symptoms and Aspects of Parent-Child Relationships? *Journal of Abnormal*  
18  
19 *Child Psychology*, 31(1), 13-27.  
20  
21  
22 Webster-Stratton, C., Hollinsworth, T., & Kolpacoff, M. (1989). The Long Term  
23  
24 Effectiveness and Clinical Significance of Three Cost-Effective Training  
25  
26 Programs for Families with Conduct-Problem Children. *Journal of Clinical*  
27  
28 *Child Psychology*, 57(4), 550-553.  
29  
30  
31 Wheatcroft, R., & Creswell, C. (in press). Parental cognitions and expectations of  
32  
33 their preschool children: The contribution of parental anxiety and child  
34  
35 anxiety. *British Journal of Developmental Psychology*.  
36  
37  
38 Windheuser, H. J. (1977). Anxious mothers as models for coping with anxiety.  
39  
40 *Behavior Analysis and Modification*, 2(1), 39-58.  
41  
42  
43 Wood, J. (2006). Effect of Anxiety Reduction on Children's School Performance and  
44  
45 Social Adjustment. *Developmental Psychology*, 42(2), 345-349.  
46  
47  
48 Wood, J., McLeod, B. D., Sigman, M., Hwang, W.-C., & Chu, B. C. (2003).  
49  
50 Parenting and childhood anxiety: Theory, empirical findings and future  
51  
52 directions. *Journal of Child Psychology & Psychiatry & Allied Disciplines*,  
53  
54 44(1), 134-151.  
55  
56  
57 Wood, J., Piacentini, J., Bergman, R. L., McCracken, J., & Barrios, V. (2002).  
58  
59 Concurrent Validity of the Anxiety Disorders Section of the Anxiety Disorders  
60  
61  
62  
63  
64  
65

1  
2  
3  
4 Interview Schedule for DSM–IV: Child and Parent Versions. *Journal of*  
5  
6 *Clinical Child and Adolescent Psychology*, 31(3), 335-342.

7  
8 Wood, J. J., Piacentini, J. C., Southam-Gerow, M., Chu, B. C., & Sigman, M. (2006).

9  
10 Family Cognitive Behavioral Therapy for Child Anxiety Disorders. *Journal of*  
11  
12 *the American Academy of Child & Adolescent Psychiatry*, 45(3), 314-321.

13  
14 Youngstrom, E., Loeber, R., & Stouthamer-Loeber, M. (2000). Patterns and correlates  
15  
16 of agreement between parent, teacher and male adolescent ratings of  
17  
18 externalising and internalising problems. *Journal of Consulting and Clinical*  
19  
20 *Psychology*, 68(6), 1038-1050.  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60  
61  
62  
63  
64  
65



1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49

**Table 1.** *Trials of Family Based CBT for Child Adolescent Anxiety*

Authors	n (treated)	Age range (years)	Primary anxiety disorders included	Group/individual format	Treatment	% diagnosis free post-treatment		
						CCBT	CCBT + FCBT	FCBT
<b>Trials comparing FCBT and CCBT</b>								
Barrett, Dadds & Rapee (1996)	79	7-14	SAD; SocPh; OAD	individual	CCBT based on Kendall (12 sessions x 60-80 mins) Brief CCBT + FCBT(12 sessions x 60-80 mins)	57	84	
Barrett (1998)	60	7-14	SAD, SocPh; OAD	group	CCBT based on Kendall (12 sessions x 120 mins) CCBT + FCBT(12 sessions x 120 mins)	55.9	70.7	
Cobham et al (1998)	77	7-14	SAD; SocPh; GAD; OAD; Agora; SpPhob	group	CCBT based on Kendall (10 sessions x 90 mins) CCBT + PAM (14 sessions x 60 mins)	60	78	
Mendlowitz et al (1999)	62	7-12	mixed (not specified)	group	CCBT based on Kendall (12 sessions x 90 mins) FCBT(12 sessions x 90 mins) CCBT(12 sessions x 90 mins) + FCBT (12 sessions x 90 mins)	n/r	n/r	n/r
Spence et al (2000)	50	7-14	SocPh	individual	CCBT including social skills training (12 sessions x 90 mins, + boosters at 3 and 6 months) CCBT (12 sessions x 90 mins, + boosters at 3 and 6 months) + FCBT (12 x 30 mins; + observe 60 mins CCBT + boosters at 3 and 6 months)	58*	87.5*	
Nauta et al (2003)	79	7-18	SAD; SocPh; GAD; PD +/- Agora	individual	CCBT based on Kendall (12 sessions; mins not specified) CCBT (12 sessions) + FCBT (7 sessions; mins	54	59	

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49

					not specified)			
Heyne et al (2002)	61	7-14	School refusal (anxiety based)	individual	CCBT (8 sessions x 50 mins) CCBT (8 sessions x 50 mins) + FCBT (8 sessions x 50 mins) + school consultation FCBT (8 sessions x 50 mins) + school consultation	n/r	n/r	n/r
Wood et al. (2006)	40	6-13	SAD; SocPh; GAD	individual	CCBT based on Kendall (12-16 sessions x 60-80 mins) Brief CCBT + FCBT(12-16 sessions x 60-80 mins)	52.6	78.9	
Bodden et al (submitted)	128	8-18	SAD; SocPh; GAD; SpecPh; PD	individual	CCBT based on Kendall (13 sessions; duration not specified) CCBT + FCBT (3 child sessions, 2 child & parent sessions; 5 parent sessions; 3 whole family sessions)	53	28	
<b>Studies that do not compare with CCBT but examine moderators of FCBT</b>								
Berman et al 2000	106 (from 2 trials)	6-17	Mixed	Group or individual	FCBT (variable) + CCBT (variable)	n/a	n/r	n/a
Crawford & Manassis, 2001	61	8-12	SAD; SocPh; GAD; SpecPh; PD and trichotillomania and selective mutism	Group	CCBT based on Kendall (12 sessions x duration not specified) + FCBT (12 sessions x duration not specified)	n/a	n/r	n/a
Dadds et al 1997	61 (plus 67 wait list)	7-14 years	'mixed' but not all had a diagnosis.	group	CCBT based on Kendall (10 sessions x 1-2 hours) + FCBT (3 sessions x 60 mins)	n/a	n/a	n/a
King et al 1998	17 (plus 17 wait list)	5-15	School refusal (not all had a diagnosis)		CCBT (6 sessions x 50 mins) + FCBT (5 sessions x 50 mins)	n/a	n/a	n/a
Manassis et al 2002	78	8-12	'mixed'	Group v individual	CCBT (12 sessions x 90 mins) + FCBT (12 sessions x 90 mins). Based on Kendall.	n/a	n/r	n/a

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49

Rapee et al 2000	95 (+15 wait list)	Mean 10.5 years (no range given)	'mixed anxiety disorders'	group	CCBT (9 sessions x 90 mins) + FCBT (9 sessions x 90 mins)	n/a	n/r	n/a
Rapee et al 2005	73 (plus 73 control)	36-62 months	'behavioural inhibition'		Parents only (6 sessions x 90 mins). Behaviour management, psychoeducation, basic CBT skills.	n/a	n/a	n/a
Shortt et al 2001	54	6.5-10	SAD; GAD; SocPh	Group	CCBT (10 sessions x 50-60 mins – 'Friends' programme) + FCBT x 6 hours.	n/a	69	n/a
Silverman et al 1999	56	6-16	OAD / GAD; SocPh	group	CCBT (10 sessions x 55 mins) + FCBT (10 sessions x 55 mins)	n/a	64	n/a
Toren et al 2000	24	6-13	SAD; OAD	Group	Joint FCBT + CCBT (10 sessions x duration not specified)	n/a	70	n/a

CCBT = Individual cognitive behavioural therapy (conducted with child); FCBT= Family cognitive behavioural therapy (conducted with parents unless otherwise specified); PAM = Parent anxiety management (conducted with parents)

SAD = Separation Anxiety Disorder; SocPh = Social Phobia; GAD = Generalised Anxiety Disorder; OAD = Overanxious Disorder; SpecPh = Specific Phobia; PD = Panic Disorder; Agora = Agoraphobia; OCD = Obsessive Compulsive Disorder

n/a = not applicable

n/r = not reported

\* diagnosis free for principal disorder only

## Response to Referees' Comments

(authors' responses in **bold**)

### Reviewer 1.

#### Major Issues

1. Because studies included in this review have limited statistical power to detect differences in outcomes and moderators, the authors' ability to draw conclusions about the efficacy of family CBT significantly restricted (as the authors note throughout the text in various places). This limitation raises serious questions about what can really be learned by this review. Perhaps this issue should be outlined in the beginning of the review as part of a more formal critique of the methodology of the studies reviewed. Related, the absence of statistical analyses commonly used in meta-analyses is curious. The rationale for this omission- or the inclusion of such analyses where appropriate- is needed.

**This issue is now raised at the beginning of paper. We have also outlined our reasons for not carrying out a meta-analysis (see page 7).**

**“One solution to this problem is to combine the results of these studies in a ‘meta-analysis’ (e.g. Field 2006). However, it was decided that a meta-analysis was not appropriate at this stage in the development of the field, because of the very substantial method variance that was apparent between the papers. It would not have been possible to carry out a single meta-analysis of all studies, and instead, a number of smaller analyses, combining small groups of studies with comparable designs would have been necessary. It is likely that a formal meta-analysis, as soon as this is appropriate, will cast considerable light on some of the issues discussed in this paper.”**

2. The paper covers a broad range of topics relevant to family treatment of child anxiety. However, given the issues raised above, many of the summaries and critical analyses are superficial. It seems that the authors could make a significant contribution by proposing a theoretical model that could guide the selection and sequence of family intervention strategies (see Silverman and colleagues work on the "transfer of control" model and developmental models of Rubin, Barlow and others that could inform family treatment). At the very least the authors should discuss these conceptual issues (or their absence) in more detail.

**It was felt that the generation of a new model was beyond the scope of this paper. Also, given the rather conflicting results that are present, proposition of a new model would feel rather premature. Indeed we make explicit reference to (and have now emphasised in our section on 'Content of treatment', p 36) the common lack of reference to developmental models in the selection and sequence of family intervention strategies, although, as we highlight, a notable exception to this is a study by Wood et al (2006) As the reviewer points out useful models do already exist and warrant more direct application in family treatments of child anxiety.**

#### Additional Issues

1. The abstract should summarize the findings of the review.

**The abstract has been lengthened to incorporate all firm findings.**

2. Additional information is needed on the search procedures outlined in the Inclusion Criteria section (e.g., key words, study criteria, which databases were searched) so that replication could be conducted.

**This additional information has been included (page 6).**

3. Studies of children with OCD were excluded. The rationale for this is unclear as several family treatment studies exist for these anxious youth.

**The rationale for this has been added (page 6):**

**“Trials that exclusively treated participants with obsessive-compulsive disorder, posttraumatic stress disorder, or simple phobia were excluded on the grounds that the outcomes and clinical demands of these disorders may differ significantly from those for more typical anxiety disorders.”**

4. A recent study by Susan Bogels and Lynn Siqueland on family treatment should be included in the review.

**We have now cited this study but only in so far as pointing out that it is the pilot stage of Bodden, Bogels, et al., (submitted), which is included in the review. However, we took the decision that we could not include this pilot study to a greater extent, as it was a case series, rather than a formal randomised controlled trial. Moreover, unlike the other non-comparative trials that we have included, its main remit was to test the feasibility of trialling the authors’ new treatment and its focus was not on the factors that moderate the efficacy of the treatment; it, therefore, provides very little information to illuminate the question that was the focus of this review.**

5. Studies that are submitted for publication but have not gone through the peer review process should not be included.

**We have included only one study in the main review that have not yet completed the peer review process. This is the study by Bodden, Bogels et al. Whilst we sympathise with the reviewer’s reasons for requesting exclusion of this paper, we would argue that it is potentially too important to be left out. This study, once published, will be one of the largest trials in the literature. What is more, it presents results that are at odds with the extant literature, and thus raises a number of very important issues. We feel that this review would very quickly be out of date if this paper were removed. Moreover, the paper has been published in other forms – at international conferences and in a publicly available dissertation. If the reviewer feels that it would be more appropriate, we could cite it as a conference presentation / dissertation, rather than as a manuscript under review.**

6. I suggest greater consistency and specificity within each section. For instance, all sections should include: the number of studies examining the variable/method, the number of studies finding no difference, the number of studies finding that one treatment was better than the other, etc.

**We gave considerable thought to how we might incorporate this suggestion. However, despite agreeing that this sort of summary would enhance and clarify**

**the review, we were unable to think of a satisfactory way of doing it. The main difficulty lies in the fact that the outcome of each study varies (sometimes substantially) depending on which outcome measure is examined. So, we would not be able to give simple summary outcomes of each study that truly reflected their complex findings. We could, instead, have selected a single outcome that was used by all studies, but in event, this was also not possible, as there is no single outcome measure that was employed by all studies.**

**Instead, we have made efforts to make the sections more consistent in other ways, for example, in the order in which information is presented.**

7. A clearer explanation of the non-comparative trials and what they teach us, what is being examined in them, etc. is needed.

**A clearer explanation is now included in the section on ‘inclusion criteria’ (p 6).**

**“However, in addition, we also included papers that reported a trial of FCBT, but did not carry out a formal randomised comparison of this with CCBT. Whilst these studies are not informative as to whether and in what circumstances CCBT or FCBT is more favourable, they do allow an investigation of the factors that might be associated with the success or otherwise of FCBT.”**

8. I would recommend omitting studies that do not include clinically anxious youth (e.g., the Rapee study on youth with BI; the Dadds et al. study on prevention, as many of those youth did not have a full disorder).

**Once again, we sympathise with the reviewer’s reasons for requesting this exclusion. However, we feel that these papers cast important light on the field, and raise important issues, and, for these reasons, should remain. Moreover, although not all children in these studies met criteria for diagnosis, a large proportion did (90% in Rapee study and 75% in Dadds study). We have re-emphasised in the manuscript that these samples are not typical of the rest of the field and that this may have impacted on the conclusions that they draw. We have also defended the use of these studies in the ‘inclusion criteria’ section of the paper (p 6).**

9. The authors should be cautious about making conclusions based on a single study.

**We have toned down conclusions based on single studies.**

10. A separate section for "dosage" of treatment seems appropriate. The issue of dosage may also be relevant for the amount of family involvement; the child focused studies using Kendall's coping cat includes 2 family sessions.

**Thank you for this suggestion. We have now included a section on dosage (p 39).**

11. The authors should also consider a separate section for co-morbidity.

**A separate section has now been included (p 31).**

12. A section (or discussion) of mediators of treatment response is needed.

**The main emphasis of this paper is on moderators of child treatment outcome. Unfortunately there is extremely limited data available about mediators of child CBT in general, let alone specifically for FCBT. We have acknowledged the need for future research to examine mediators in our section on 'Future Research' as follows(p 44):**

**'Moreover, in order to refine the (still somewhat basic) theoretical understanding on which many of these interventions are predicated, future trials need to carefully measure the cognitive, behavioural and family processes that they are attempting manipulate, and examine their mediating role in any improvement that is seen in children's anxiety.'**

13. Considerable editing is needed both for grammar as well as communicating the "take home" message.

**The manuscript has been re-checked for grammar errors. We have tried to communicate the 'take home' message more clearly throughout, whilst acknowledging the tentative nature of many of the conclusions and our reluctance to overstate these.**

14. The authors should consider adding a table of a similar design that summarize findings of some of the variables examined in the text (e.g., assessment method, age, gender, treatment components). This would make allow the authors to focus the text on synthesising the literature.

**Once again, whilst we were initially enthusiastic about this idea, we found that producing a table that would accurately summarise the complex findings of each study (taking into account the often conflicting results reported when examining different outcome measures) would be very difficult, and the result would be rather unenlightening for the reader!**

15. The authors should spell out the names of measures in the questionnaire section.

**This has now been done (p 8).**

16. Finally, more specific recommendations for future research as well as the clinical implications/applications of their findings would be constructive.

**This has now been done (p 44).**

Manuscript # CCFP-10

Reviewer: 2

The present manuscript is a well written, thoughtful overview of the family-based treatment outcome literature regarding childhood anxiety. The review examines randomized controlled trials that have compared child-focused CBT (CCBT) to either family-based CBT (FCBT) or CCBT with an added family component (CCBT + FCBT). A broad range of moderating variables were scrutinized including age, gender, parental anxiety, caregiver status, type and severity of anxiety, as

well as treatment format and content. Careful attention was devoted to the measurement of outcomes and the timing of assessments.

**We would like to thank the reviewer for these comments.**

The authors reported that few firm conclusions could be drawn. In general, they found that FCBT was better than no treatment. More specifically, children treated with CCBT plus FCBT were more likely found to be diagnosis free at post-treatment than children treated with CCBT alone (5 of 7 studies; for other two studies this trend was reversed). Finally, unaddressed parental anxiety negatively impacted child treatment outcome. Given that the extant data on family-based treatment is limited as well as its findings, it appears premature to devote an entire review to the treatment outcome literature. The authors may consider expanding the scope of their review to the family-based treatment of emotional disorders, most notably anxiety and depression. Such a review would be most meaningful, given their frequent comorbidity.

**Whilst we think that this suggestion would also make a very interesting review, we have taken the editor's advice that this is beyond the scope / remit of the present manuscript.**

In addition, it would help to examine family-based data in the context of conceptual models of anxiety and depression

**In light of the previous response, we have restricted our inclusion of theoretical context to anxiety disorders. The suggestions by the reviewer refer to models of negative emotion in childhood (i.e. the relationship between anxiety and depression) and, given our restriction to anxiety disorders are now redundant.**

Finally, some mention of innovative trends such as parent-child interaction therapy for SAD (see Choate, Pincus, Eyberg, & Barlow, 2005 - Cognitive and Behavioral Practice, 12, 126-135) and modular cognitive-behavior therapy for childhood anxiety (see Chorpita, 2006 - Guilford Press) should be included.

**A section on innovative trends in treatment research has now been added (p 42).**