Case Study 1: Evidence-based Practice Review

Theme: Interventions Delivered by Parents

How effective are low-intensity, guided, parent-delivered cognitive behaviour therapy interventions for children with anxiety?

Summary: In guided, parent-delivered cognitive behaviour therapy (GPD-CBT) parents are supported by a therapist to implement cognitive-behavioural techniques to help their child overcome anxiety (Creswell et al., 2022). While there are several different versions of this intervention in the literature, many require considerable time commitment from parents and therapists, which increase barriers to treatment. Low-intensity approaches may represent an alternative. Shafran et al. (2022) define low-intensity approaches to intervention as (i) involving less than 6 hours total therapist contact, (ii) making use of written self-help materials, and (iii) involving input from paraprofessionals. The present review investigated GPD-CBT interventions that could be considered 'low-intensity' according to these criteria, to determine whether they are effective at reducing anxiety in school-aged children. Meta-analysis of 11 effects across 10 studies showed that the intervention had a large overall effect on parents' ratings of their child's anxiety symptoms. An additional meta-analysis of three randomised-controlled trials suggested that low-intensity GPD-CBT approaches may be similarly effective to individual evidence-based psychotherapy at relieving children

of all anxiety diagnoses. Limitations, directions for future research, and implications for EP practice are discussed.

Introduction

Cognitive behaviour therapy (CBT) is an effective treatment for anxiety in school-aged children (James et al., 2020). Based in cognitive and learning theory, it models anxiety as a link between thoughts, emotions, and behaviours. Maladaptive thinking patterns cause individuals to interpret stimuli in unrealistically threatening ways, resulting in high levels of anxiety (Brewin, 1996). This leads to unhelpful behaviours that perpetuate and maintain the anxiety, such as avoiding feared situations. CBT aims to break this cycle by supporting children to systematically recognise and un-learn maladaptive patterns of thinking, feeling, and behaving (Seligman & Olendick, 2011). It often involves practising new skills (e.g. challenging anxieties) through completing tasks outside of sessions.

CBT for children is traditionally delivered through face-to-face sessions with a therapist (Seligman & Olendick, 2011). However, the last two decades have seen increasing evidence for the efficacy of guided parent-delivered CBT (GPD-CBT), where therapists support parents to implement CBT techniques with their anxious child (Creswell et al., 2022; Jewell et al., 2022). Such approaches have several benefits, such as reducing disruption to children's learning, by not requiring them to attend appointments during school hours and avoiding the perceived stigma associated with seeing a therapist (Reardon et al., 2018). GPD-CBT also requires less therapist input than traditional approaches, in turn representing an opportunity to increase access to interventions. This is particularly pertinent given increasing wait-times for Child and Adolescent Mental Health Services (CAMHS).

Low-intensity Interventions

One of the limitations of many GPD-CBT programmes is that they are time-intensive, often requiring parents to attend 8-10 2-hour sessions (e.g. Byrne et al., 2021). Parents not only need the time to attend the sessions, but also to work through the therapeutic activities and homework with their child. This may be unviable for parents who are 'time-poor', stretched by the demands of increasing job insecurity and the cost-of-living crisis (Giurge et al., 2020). Further, while nonetheless useful for increasing capacity for mental health clinics, these more time-intensive approaches to GPD-CBT interventions may be less viable for local authority EP practice; given increasing numbers of pupils requiring support for special educational needs (NHS, 2022), schools may be hesitant to spend 16-20 hours of their EP time on running one of these interventions, unless there are many parents in the school who are interested in participating in it simultaneously.

Taking a 'low-intensity' approach to GPD-CBT may provide an effective work-around. Low-intensity interventions were developed to increase access to psychotherapy for mild-to-moderate severity mental health concerns, with the idea that non-responders could 'stepped up' to more intensive treatments (Clark, 2018). They require less input from therapists and clients, yet build on the evidence-base of individual psychotherapy (Shafran et al., 2022). Low-intensity GPD-CBT approaches may be particularly suited to EP practice, as they require less time commitment from parents and therapists and impose fewer organisational demands, making them viable for delivery within a school's core or traded EP time. Further, EPs may be the first professionals that school-age children are referred to for anxiety, and they could provide or commission low-intensity GPD-CBT as a first-line treatment. If this is

sufficient to remit their anxiety, then it avoids children and families facing long CAMHS waiting lists and engaging in time-intensive psychotherapy.

The Present Review

Shafran et al. (2022) note inconsistency in the literature regarding the definition of 'low-intensity' CBT interventions. To address this, they propose three defining features. These are: (i) use of written self-help material, (ii) less than six hours therapist contact (with sessions generally less than 30 minutes), and (iii) input from 'paraprofessionals' (i.e. people without a core mental health qualification such as a psychology doctorate). Existing reviews suggest that interventions delivered by parents, including GPD-CBT, can help reduce anxiety symptoms in children (Creswell et al., 2022; Jewell et al., 2022). The present review and meta-analysis takes a narrower focus, by investigating the effectiveness of approaches that could be considered low-intensity, as per Shafran et al. (2022).

Criteria (i) and (ii) were used to determine which papers to include. Including (iii) and the subpoint in (ii) about individual sessions being less than 30 minutes each yielded too few results in an initial scoping search. Hence, these are instead used, along with considerations regarding applicability to EP practice, to determine the extent to which each study contributes toward answering the review question (see: Weight of Evidence C). The review aimed to answer the following question:

Review Question: 'Is low-intensity, guided parent-delivered cognitive behaviour therapy (GPD-CBT) effective at treating anxiety among school-aged children?'

Literature Search

Systematic literature searches were undertaken in January 2023 on Web of Science, PsycINFO, Medline, and ERIC (EBSCO). Searches were for keywords in the title, abstract, and main text, corresponding to the intervention, population, and outcome. Terms relating to low-intensity were not used, given the inconsistency surrounding its definition in the literature (Shafran et al., 2022). Instead, records were individually evaluated on this criterion as part of screening. Search terms, which were combined with AND, are displayed in Table 1. Searches were limited to peer-reviewed journals published in English. Searches identified 2148 records, resulting in 1330 items after duplicates were removed. Titles and abstracts were screened for relevance, leaving 37 studies to be screened through full-text. Table 2 displays the inclusion and exclusion criteria used for screening. Appendix A displays studies excluded at full-text screening. Figure 1 displays a flow-diagram of the screening process, which identified 10 studies. Table 3 displays the references of included studies, and Table 4 summarises their characteristics.

Table 1

Terms used in database search

Parent-delivered	CBT	Children	Anxiety
parent-implemented OR parent-led OR parent-delivered OR implemented by parents OR led by parents OR delivered by parents OR parent-only OR for parents OR parent-based OR parent-focus?ed OR parenting	cognitive behavio?r* therap* OR cbt	child* OR adolescent* OR teen OR school-age* OR primary school OR elementary school OR secondary school OR high school OR youth* OR young adult*	anxi* OR panic OR phobia OR agoraphobia OR worry

Note. Databases search automatically include cases in which hyphenated words (e.g. low-intensity) are separated by a space; * = includes terms starting with that stem (e.g. efficien* retrieves efficient or efficiency); ? = accounts for different spellings of the same word (e.g. behaviour vs. behaviour)

Table 2

Inclusion and Exclusion Criteria

Criteria	Inclusion Criteria	Exclusion Criteria	Rationale
1. Population	(a) Children are aged 5-16	Children are older than 5 or younger than 16	The review focuses on school-aged children
	(b) Children's primary presenting difficulty is related to anxiety symptoms or diagnosis	Anxiety is not the main concern but it is secondary to another non-anxiety-related mental health condition (e.g. depression)	Such cases will likely require treatment of the primary disorder for anxiety symptoms to remit (e.g. Salloum et al., 2022)
	(c) The children included are generally physically healthy	Children have a chronic or significant health issue (e.g. cancer)	Anxieties among children with significant health issues require more specific intervention (e.g. Kazak, 2006)
2. Intervention	(a) Intervention is based on CBT theory and methods	Intervention involves a different theoretical orientation or includes very few elements of CBT (e.g. only exposure therapy techniques)	The review focuses on CBT-based interventions; a previous review looked more broadly at parent-only interventions (Jewell et al., 2022)
	(b) The intervention that children receive is delivered entirely by parents	There is therapeutic contact between the child and the therapist	The focus is on CBT interventions delivered by parents, as 'lay therapists' rather than psychotherapy involving both parents and children.
	(c) A therapist guides parents to	There is no substantive contact between	Interventions without therapist contact are akin to 'pure'

	implement the intervention	parents and therapists	bibliotherapy or self-help approaches (e.g. Rapee et al., 2006), rather than therapist-guided parent-delivered CBT, as is the focus of this review
	(d) The intervention involves less than 6 hours of therapist contact	Therapist-parent contact is either not precisely reported, or more than six hours	Low intensity approaches, as per Shafran et al. (2022) typically involve less than 6 hours contact
	(e) The intervention involves some use of written self-help materials	No written or text-based materials are distributed to parents or children	Low intensity approaches, as per Shafran et al. (2022) make use of written self-help materials
	(f) This is the only anxiety-related intervention children are receiving	Children are receiving a different intervention concurrently	Concurrent intervention may confound results regarding the effects of the studied intervention
	(g) The intervention is designed to address anxiety as a primary difficulty	The intervention is for anxiety arising in the context of another need (e.g. 'interventions for autistic children, dyslexia', etc.)	Such interventions are often more specific (e.g. Rodgers et al., 2017) in their approach and may not generalise to anxious children more broadly
3. Comparison	There is a quantitative comparison between anxiety-related measures pre and post intervention	Study only reports qualitative data, data from one time-point; or, pre and post data are not in comparable metrics	Quantitative pre and post measures are required to estimate the extent to which the intervention is effective in reducing anxiety
4. Outcome	The main outcome is a measure of anxiety (e.g. diagnostic status or symptom levels)	Anxiety is a secondary outcome (e.g. to sleep or conduct problems)	Interventions wherein anxiety is a secondary outcome may be more specific in nature and not applicable to the majority of children with

			anxiety (e.g. Kahn et al., 2017)
5. Study Type	(a) RCTs, or non-controlled intervention studies	Cross-sectional, review, or conceptual papers	The focus is on assessing the effectiveness of an intervention
	(b) Data is original and independent of other included studies	Additional/follow-up analyses of data from other included studies	The assumption of independence needs to be met to avoid bias in review and meta-analysis

Note. RCT = Randomised Controlled Trial

Figure 1

Flow diagram of screening process

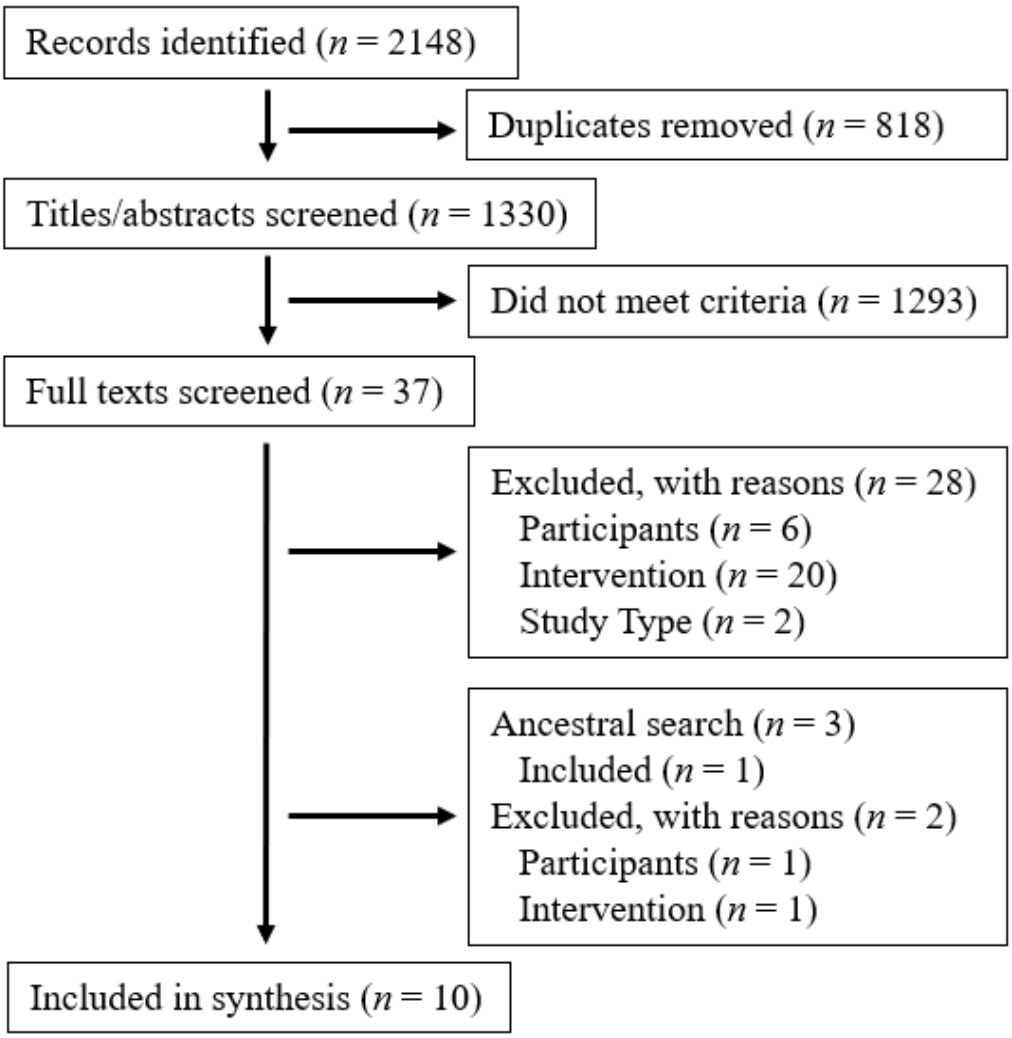

Table 3

List of Included Studies

1. Breinholst, S., Walczak, M., Christiansen, B., & Esbjørn, B. (2021). A therapist-guided parent-delivered self-help group for anxiety disorders in children: An effectiveness study. *Journal of Behavioral and Cognitive Therapy*, *31*(2), 105-113.

2. Cobham, V. E. (2012). Do anxiety-disordered children need to come into the clinic for efficacious treatment?. *Journal of consulting and clinical psychology*, *80*(3), 465.

3. Creswell, C., Hentges, F., Parkinson, M., Sheffield, P., Willetts, L., & Cooper, P. (2010). Feasibility of guided cognitive behaviour therapy (CBT) self-help for childhood anxiety disorders in primary care. *Mental health in family medicine*, *7*(1), 49.

4. Creswell, C., Violato, M., Fairbanks, H., White, E., Parkinson, M., Abitabile, G., ... & Cooper, P. J. (2017). Clinical outcomes and cost-effectiveness of brief guided parent-delivered cognitive behavioural therapy and solution-focused brief therapy for treatment of childhood anxiety disorders: a randomised controlled trial. *The Lancet Psychiatry*, *4*(7), 529-539.

5. Esbjørn, B. H., Christiansen, B. M., Walczak, M., Østergaard, S. W., & Breinholst, S. (2016). Can parents treat their anxious child using CBT? A brief report of a self-help program. *Acta Psychopathologica*, *2*(01), 1-5.

6. Esbjørn, B. H., Breinholst, S., Christiansen, B. M., Bukh, L., & Walczak, M. (2019). Increasing access to low-intensity interventions for childhood anxiety: A pilot study of a guided self-help program for Scandinavian parents. *Scandinavian journal of psychology*, *60*(4), 323-328.

7. Green, I., Reardon, T., Button, R., Williamson, V., Halliday, G., Hill, C., ... & Creswell, C. (2023). Increasing access to evidence-based treatment for child anxiety problems: online parent-led CBT for children identified via schools. Child and Adolescent Mental Health, 28(1), 42-51. https://doi.org/10.1111/camh.12612

8. Hill, C., Chessell, C., Percy, R., & Creswell, C. (2022). Online Support and Intervention (OSI) for child anxiety: a case series within routine clinical practice. *Behavioural and Cognitive Psychotherapy*, 1-17.

9. Leong, J., Cobham, V. E., De Groot, J., & McDermott, B. (2009). Comparing different modes of delivery. *European child & adolescent psychiatry*, *18*(4), 231-239.

10. Thirlwall, K., Cooper, P. J., Karalus, J., Voysey, M., Willetts, L., & Creswell, C. (2013). Treatment of child anxiety disorders via guided parent-delivered

cognitive–behavioural therapy: Randomised controlled trial. *The British Journal of Psychiatry*, *203*(6), 436-444

Table 4

Mapping the Field: Summary of Study Characteristics

Author & Country	Design	Follow up	Sample (Referral)	Parent Demographics	Conditions (*N* post)	Therapist Contact (total)	Anxiety Outcome Measures
Breinholst et al. (2021) Denmark	NC	Yes	115 children aged 6-12 (65 female) whose parents reported anxiety problems; (community)	Over 50% of parents had a master's degree or higher; ~36% with income above 125,500 US Dollars	GPD-CBT (*N* = 115)	2 x 2-hour face-to-face group workshops led by school psychologists (240 minutes)	Revised Children's Anxiety and Depression Scales (RCADS), mother, father, and child report
Cobham (2012) Australia	RCT	Yes	55 children aged 7-11 (25 female) meeting criteria for an anxiety disorder; 92% Caucasian; (community)	Parental occupation on average 4/7 on the Daniel (1983) prestige scale (i.e. white-collar professionals)	GPD-CBT (*N* = 20); Individual CBT (*N* = 23); Waitlist (*N* = 12)	2-hr group training & 6 phone-calls of no more than 20 minutes each conducted by intern psychologists (240 minutes)	Anxiety Disorders Inventory for Children (ADIS-IV-C/P); Clinical Global Impressions Scale (CGI-I) Revised Children's Manifest Anxiety Scale (RCMAS) Spence Children's Anxiety Scale child-report (SCAS-c) Child Behaviour Checklist (CBCL)

Creswell et al. (2010) UK	NC	No	52 children aged 5-12 (gender not reported) meeting criteria for anxiety disorder (clinic)	Not specified	GPD-CBT (N = 43)	4 x 1-hour face-to-face contacts and 4 x 15-minute phone contacts, by 'primary mental health workers' (details not given) (300 minutes)	Clinical Global Impressions Scale (CGI-I) Spence Children's Anxiety Scale, child and parent report (SCAS-c/p), Short Moods and Feelings Questionnaire, child/parent (SMFQ-c/p)
Creswell et al. (2017) UK	RCT	Yes	136 children aged 5-12 (72 female) with anxiety as a primary problem at NHS referral; 93% white British (clinic)	36% with higher education; majority associate professional or technical with > 50k GBP income	GPD-CBT (*N* = 55); Solution-focused Behavioural Therapy (N = 65)	4 x 45-minute face-to-face and 4 x 15-minute phone contacts with therapists from a range of backgrounds (including clinical psychologists) (240 minutes)	Anxiety Disorders Inventory for Children (ADIS-IV-C/P); Clinical Global Impressions Scale (CGI-I) Spence Children's Anxiety Scale, child/parent (SCAS-c/p); Child Impact of Anxiety Scale, child/parent (CAIS-c/p), Koala Fear Questionnaire (KFQ)
Esbjørn et al. (2019) Denmark	NC	No	31 children aged 7-12 (18 female) whose parents reported elevated levels of anxiety	>40% mothers and fathers had Master's degrees; 42% of mothers and	GPD-CBT (*N* = 31)	2 x 2-hour face-to-face group workshops led by clinical psychologists	Revised Children's Anxiety and Depression Scales (RCADS), mother, father, and child report

			in their child (community)	60% of fathers > $114k USD			
Esbjørn et al. (2016) Denmark	NC	No	17 children aged 7-13 (7 female) with a primary diagnosis of an anxiety disorder (community)	68% of mothers and 58% of fathers had a university degree; annual income of 70% of mothers and 76% of was > $75k USD	GPD-CBT (*N* = 17)	2 x 2-hour face-to-face group workshops led by CBT therapists with varying experience (not specified) (240 minutes)	Revised Children's Anxiety and Depression Scales (RCADS), mother, father, and child report
Green et al. (2022) UK	NC	No	47 children aged 8-9 (29 female) with clinical levels of anxiety according to self, parent, or teacher report on the SCAS; 79% white British (school)	66% of parents had higher education; 75% had a mortgage or owned a house outright	Online-based GPD-CBT (*N* = 47)	8 x 20-minute phone calls with child wellbeing practitioners (CWPs) (120 minutes)	Child Outcome Rating Scale (CORS); Revised Children's Anxiety and Depression Scales, parent (RCADS-p) Child Anxiety Impact Scale, parent (CAIS-p)
Hill et al. (2022) UK	NC	No	23 children aged 7-12 (17 female) with a primary anxiety difficulty associated with functional	Not specified	Online-based GPD- CBT (*N* = 23)	8 x 20-minute phone calls, with child wellbeing practitioners (CWPs)	Child Outcome Rating Scale (CORS); Revised Children's Anxiety and Depression Scales, parent (RCADS-p); Child Anxiety Impact Scale, parent (CAIS-p)

			impairment (clinic)			(120 minutes)	
Leong et al. (2009) Australia	RCT	Yes	27 children aged 7-14 (10 female) meeting diagnostic criteria for a primary anxiety disorder (community)	All participating families were Caucasian; 59% of parents had higher education	GPD-CBT (*N* = 13); Individual CBT (*N* = 14)	2-hour face-to-face training and 6 x up to 20-minute phone-calls with 'trained therapists' (no further details given) (240 minutes)	Anxiety Disorders Inventory for Children (ADIS-IV-C/P); Revised Children's Manifest Anxiety Scale (RCMAS); Strengths and Difficulties Questionnaire (SDQ) total score and emotional subscale
Thirlwall et al. (2013) UK	RCT	Yes	194 children aged 7-12 (94 female) with a primary diagnosis of an anxiety disorder; 85% Caucasian (clinic)	61% of parents were professionals; 44% had higher education	'Full' GPD-CBT (*N* = 50); 'Brief' GPD-CBT (*N* = 46); Wait-list (*N* = 63)	4x1-hour face-to-face and 4x 20-minute phone sessions (Full) (320 minutes) *or* 2x1-hour face-to-face sessions and 2x 20-minute phone sessions (Brief) (160 minutes);	Anxiety Disorders Inventory for Children (ADIS-IV-C/P); Clinical Global Impressions Scale (CGI-I); Spence Children's Anxiety Scale, parent/child (SCAS-c/p) Child Behaviour Checklist (CBCL), Child Impact of Anxiety Scale, child/parent (CAIS-c/p)

				Both forms with therapists incl. psychologists

Note. RCT = Randomised controlled trial; NC = Non-controlled design

Critical Review

The included studies were appraised using Gough's (2007) 'Weight of Evidence' (WoE) framework. This evaluates methodological quality (WoE A), methodological relevance to the review question (WoE B), and topical relevance to the review question (WoE C). WoE A was calculated using adapted versions of the Cochrane Collaboration's 'Risk of Bias' tools (Sterne et al., 2016; 2019). The rating protocols along with completed examples are displayed in Appendix B. Criteria for WoE B (Appendix C) were based on Petticrew & Roberts (2003) hierarchy of evidence, adapted by the author. Criteria for WoE C (Appendix D) were developed by the author; they measured the extent to which each study approximated a 'low-intensity' intervention (Shafran et al., 2022), with consideration of its generalisability to EP practice (Appendix D). Dimensions were averaged to produce WoE D, which measures the extent to which each study contributes to answering the review question. Complete WoE ratings are displayed in Table 5.

Table 5

Weight of Evidence Ratings for Included Studies

Study	A: Quality	B: Design	C: Topic	D	Rating
Breinholst et al. (2021)	2 (Med)	1 (Low)	1 (Low)	1.3	Low
Cobham (2012)	3 (High)	3 (High)	1 (Low)	2.3	Med
Creswell et al. (2010)	2 (Med)	0 (Very Low)	0 (Very low)	0.7	Very Low
Creswell et al. (2017)	2 (Med)	2 (Med)	1 (Low)	1.7	Low-Med
Esbjørn et al. (2016)	2 (Med)	0 (Very Low)	1 (Low)	1	Low
Esbjørn et al. (2019)	1 (Low)	0 (Very Low)	1 (Low)	0.7	Very Low
Green et al. (2022)	1 (Low)	0 (Very Low)	3 (High)	1.3	Low
Hill et al. (2022)	1 (Low)	0 (Very Low)	2 (Med)	1	Low
Leong et al. (2009)	2 (Med)	2 (Med)	1 (Low)	1.7	Low-Med
Thirlwall et al. (2013)	2 (Med)	2 (Med)	0 (Very low)	1.3	Low

Note. <1 = Very Low; 1 - 1.5 = Low; 1.5 - 2 = Low-Med; 2 - 2.5 = Med; 2.5 - 3 = High

Participants

The total number of participants across all studies was 697, with most being between the ages of 6 and 13. Gender was reported in nine out of ten studies. Representation was relatively equal with 52% (337/645) of children being female. Where reported, most children were described as Caucasian or white British (79-93%), which may limit generalisability. The focus of the review is on applications for EP practice in the UK, where five studies took place. Of the others, two took place in Australia, and three in Denmark. This has positive implications for the applicability of findings to the UK, as these countries are also WEIRD nations (i.e. Western, Educated, Industrialised, Rich, Democratic). Namely, they are countries within Europe and the broader Anglosphere (e.g. Australia) that would be considered part of the 'developed world', which share predominately similar cultural (i.e. individualism as opposed to collectivism), political, and economic systems (i.e. liberal democracy) (Henrich et al., 2010). However, parents tended to be middle-class professionals, which may limit generalisability to the broader socio-economic spectrum of UK society. In five studies, participants were recruited through teacher, parent, or school referral. These studies received higher WoE C scores, as they more closely mirror the referral context of EP practice.

Design

Four of the included studies were RCTs. RCTs provide more robust evidence with respect to effectiveness questions (Petticrew & Roberts, 2003), and this was reflected in WoE B. RCTs were distinguished with respect to the nature of the control group. Two studies compared low-intensity GPD-CBT to individual psychotherapy (Creswell et al., 2017; Leong et al., 2009). This allowed researchers to investigate

the extent to which low-intensity GPD-CBT was as effective as a standard treatment for anxiety. In contrast, Thirlwall et al. (2013) compared two versions of low-intensity GPD-CBT to waitlist control (2.6 hours vs. 5.2 hours of therapist contact). This allowed authors to provide an estimation of treatment effect, however they were not able to demonstrate the non-inferiority of the GPD-CBT approach relative to individual psychotherapy. Cobham (2012) included both forms of comparison group. This allowed the author to isolate the effect of low-intensity GPD-CBT, providing stronger evidence for its effectiveness. Cobham (2012) received a WoE B score of 3/3, whereas the other four RCTs received 2/3. Non-controlled studies provide poorer evidence with respect to effectiveness questions, and hence they received lower WoE B scores. However, given that Breinholst et al. (2016) included a longer-term (6 months) follow-up, it received a higher score (1/3) than the others (0/3). Follow-up, data may mitigate the impact of attention effects, by demonstrating that treatment gains have been maintained even after the attention provided by the intervention (i.e. parents engaging in CBT activities with their children) is removed. Hence, this study provided stronger evidence.

Methodological Quality

Most studies received 'some concerns' for risk of bias in at least one domain of assessment, and this was reflected in WoE A scores (2/3). A common source of risk was large amounts of participants lost to follow-up (Creswell et al., 2010, 2017; Esbjørn et al., 2016; Leong et al., 2009). While substantial drop-out is to be expected of trials of psychological interventions, these studies were penalised for not applying an appropriate statistical technique (e.g. sensitivity analysis) to determine whether this may have introduced bias. In contrast, Thirlwall et al. (2013) conducted a

sensitivity analysis for the large amounts of participants lost to follow-up, finding no evidence that this biased results. Nonetheless, their study still received a 'some concerns' judgement, as adherence to protocol for several therapist activities (e.g. homework setting) was low. Other studies (Breinholst et al., 2021; Esbjørn et al., 2016; Leong et al., 2009) received 'some concerns' in this domain, for not monitoring protocol therapists' adherence to protocol at all.

Three studies received a 'high' risk of bias rating, meaning that they demonstrated high risk in at least one assessment domain. This is reflected in WoE A scores of 1/3. Two studies received this judgement because of parents' poor adherence to intervention protocol. In Esbjørn et al. (2019), only 67% of parents completed 8/10 of the assigned CBT activities, whereas in Green et al. (2022), only 65% of parents completed all key modules. Interestingly, despite using the same manualised intervention as Green et al. (2022), parents in Hill et al.'s (2022) study demonstrated lower non-adherence, with 78% completing all of key modules. A possible explanation is that the parents in Hill et al. (2022) were offered the treatment following a referral to an anxiety clinic, rather than through school-wide anxiety screening. They may have perceived their child's anxiety problem as more serious and been more motivated to fully engage in treatment. However, Hill et al. (2022) also received a 'high' risk of bias, as follow-up assessments for participants did not coincide, and no statistical adjustments were applied to correct for this. Only one study demonstrated 'low' risk of bias in every domain (Cobham, 2012).

Interventions

Treatment programs were between eight and twelve weeks in duration, with all requiring parents to cover one component (e.g. book chapter) per week.

Therapist-guidance was delivered in-person or via phone, with average total contact being 3.7 hours, counting the two interventions (brief and full GPD-CBT) in Thirlwall et al. (2013) as separate. Total contact ranged between 2 hours, and 5 hours 20 minutes, with six of eleven interventions involving 4 hours total contact.

In the three studies involving families from Denmark (Breinholst et al., 2021; Esbjørn et al., 2016; 2019), parents followed a treatment workbook across 10-12 weeks. Therapist guidance was provided through two 2-hour group workshops. This was delivered by clinical psychologists in Breinholst et al. (2021) and Esbjørn et al. (2019). In Esbjørn et al. (2016), facilitators' professional backgrounds were not specified. The two studies from Australia (Cobham, 2012; Leong et al., 2009) were similar, with one workbook session completed per week over 12 weeks. As in Brienholst et al. (2021) and Esbjørn et al. (2016; 2019), guidance was provided through an initial 2-hour group training; however, it was followed by six fortnightly telephone calls, delivered by psychologists. All five studies received lower WoE C scores; they less closely approximated 'low-intensity' approaches, as therapist guidance was not provided by 'paraprofessionals' (i.e. non-psychologists) and contacts were longer than 30 minutes each (Shafran et al., 2022).

In three of the UK-based studies (Creswell et al., 2010; 2017; Thirlwall et al., 2013), parents followed a self-help book (Creswell & Willetts, 2012), which instructed readers about CBT strategies they can use to help their child overcome anxiety. This was accompanied by eight weekly sessions of therapist guidance, including four (45 minutes to an hour each) face-to-face sessions, and four brief phone reviews (15-20 minutes each). In Thirlwall et al. (2013), an additional 'brief' condition was included where parents only received two hour-long face-to-face sessions and two 15-minute

phone-calls. Therapist guidance was provided by a range of professionals. This included clinical psychologists in Creswell et al. (2017) and Thirlwall et al. (2013), whereas in Creswell et al. (2010), their professional background was not specified. Considering that all three studies also involved therapist-guided sessions of over 30 minutes each, they received lower WoE C scores.

In the other two UK-based studies (Green et al., 2022; Hill et al., 2022), parents completed eight online modules, which included text, videos, and interactive elements covering CBT strategies derived from the self-help book (i.e. Creswell & Willetts, 2012) used in the aforementioned three studies. Modules were completed once per week, with the final one as a four-week follow-up. Each module was supported by a phone-call of around 20 minutes with a child wellbeing practitioner (CWP). These studies closely approximated low-intensity approaches, as they involved both paraprofessionals and short individual contact-times (Shafran et al., 2022). Given that Green et al. (2022) also recruited participants through a school-based anxiety screening (and not a mental health clinic), the referral context was similar to EP practice. Hence, this study met all WoE C criteria, receiving 3/3.

Outcome Measures

All included studies used anxiety screening questionnaires to assess outcomes. The majority used the Revised Children's Anxiety and Depression Scale (RCADS), which demonstrates reliability across different cultures and assessment contexts (Piqueras et al., 2017). It also demonstrates strong internal consistency and construct validity (Early Intervention Foundation, 2020). However, some authors recommend the use of subscales rather than the total score (e.g. Donnelly et al., 2019). Most included studies did this, with many using the overall anxiety subscale,

and two (Hill et al., 2022; Green et al., 2022) tracking the specific subscale that was most elevated at baseline assessment (e.g. separation anxiety) to measure outcomes across time. Esbjorn et al., (2016) used the total score; as a result, their findings may be less robust, and potentially not as comparable, given that the total RCADS score also includes depressive symptoms. Several studies also used the Spence Child Anxiety Scale (SCAS), which also demonstrates cross-cultural and cross-context reliability (Orgiles et al., 2016). A recent review of studies across the last two decades have found evidence in favour of the SCAS's internal consistency and construct validity (Ramme, 2018). Further, the RCADS was developed as a revision of the SCAS, designed to more closely align with diagnostic criteria, and as such they demonstrate strong convergent validity (Chorpita et al., 2000).

Both the RCADS and the SCAS have parent and child-report versions, which most studies used. However, three took separate parent-ratings from both mothers and fathers on the RCADS. These differed quite substantially, with fathers rating symptoms as less severe at both baseline and follow-ups (Esbjørn et al., 2016; 2019; Breinholst et al., 2021). One exception was Cobham (2012), who measured child-reported anxiety with the SCAS, and parent-reported anxiety with the Child Behaviour Checklist (CBCL) internalising subscales. Another was Leong et al., (2009), who used the Revised Children's Manifest Anxiety Scale (RCMAS) for child-reported anxiety, which has been shown to be valid and reliable (Lowe, 2016), and the Strengths and Difficulties Questionnaire (SDQ) emotional concerns subscale for parent-reported anxiety. Both the SDQ and CBCL are commonly-used and psychometrically sound within this age-group (Seligman et al., 2004). However, 'internalising' or 'emotional' symptoms is arguably a different construct to 'anxiety

symptoms', and this raises questions about the comparability of these findings. Finally, some studies used diagnostic interviews, administered by trained clinicians, which is the gold-standard form of anxiety assessment.

Pre-Post Intervention Findings

A summary of pre-post and 6-month follow-up effect sizes from the six uncontrolled studies and from experimental groups in the RCTs is displayed in Table 6. Continuous self-report measures of anxiety symptoms were used, as these were the most comparable across studies. Effect sizes express the magnitude of reduction in a child's anxiety symptoms after receiving the intervention. They were calculated as standardised mean differences, using Becker's (1988) formula. This divides the mean difference by the standard deviation of pre-test scores, under the assumption that this distribution of scores best approximates the population of interest (i.e. anxious children who have not received the intervention). The two GPD-CBT conditions (brief vs. full) in Thirlwall et al. (2013) were treated as separate studies, as they involved different participants.

Meta-analyses were run using the metafor package in R (v4.1.3). They investigated the effect of low-intensity GPD-CBT on both child and parent-ratings of the child's anxiety symptoms. Where mother and fathers provided separate ratings, the mother's rating was used. This reflects the fact that across the studies with generic 'parent-rated' measures, the parent providing the rating was the child's mother in around 90% of cases. Sampling variances for effect sizes were calculated according to the method used in Koenig et al. (2011), using an R function written by the author (Appendix E). Given differences in protocols across studies, a distribution of true effects is likely, so a random effects model was used.

Among studies where it was reported, meta-analysis found that low-intensity GPD-CBT had a medium effect on child-rated anxiety at post-treatment (N = 9), d = 0.57, SE = 0.09, $p < .001$, and follow-up (N = 6), d = 0.79, SE = 0.10, $p < .001$. However, funnel plots (Appendix F) and Egger's test demonstrated evidence of publication bias, suggesting that results may not accurately reflect the true effect size for both post-treatment ($p < .01$) and follow-up ($p < .05$). An additional meta-analysis for parent-rated outcomes across all included studies (N = 11) found a large effect at post-treatment, d = 0.91, SE = 0.10, $p < .001$, and follow-up (N = 6), d = 1.12, SE = 0.12, $p < .001$. Funnel plots (Appendix G) and Egger's test did not suggest publication bias at post-treatment (p = .23) or follow-up (p = .12). Hence, parent-rated outcomes were used to analyse the moderating effect of total therapist-parent contact time, which was not significant at post-treatment (p = .81) or follow-up, (p = .60). Forest plots for parent-rated outcomes are displayed in Appendix H.

Table 6

Effect Sizes for Change in Anxiety Symptoms Across Time-Points

Study [WoE D]	Anxiety Symptom Measure (rated by)	Post-treatment		6-months	
		N	*d*	*N*	*d*
Breinholst et al. (2021) [1.3, Low]	RCADS Anxiety (Child)	88	0.46[b]	87	0.60[b]
	RCADS Anxiety (Mother)	93	0.86[b]	90	1.06[b]
	RCADS Anxiety (Father)	84	0.57[b]	81	0.69[b]
Cobham (2012) [2.3, Med]	SCAS (Child)	20	0.93*	20	0.77*
	CBCL-int (Mother)	20	1.1*	20	1.65*
	CBCL-int (Father)	20	0.79*	20	0.92*
Creswell et al. (2010) [0.7, Very Low]	SCAS (Child)	41	0.17[c]		
	SCAS (Parent)	41	0.49[a]		
Creswell et al. (2017) [1.7, Low-Med]	SCAS (Child)	45	0.35*	44	0.73*
	SCAS (Parent)	51	0.61*	51	0.74*
Esbjørn et al. (2016) [1, Low]	RCADS Total (Child)	17	1.14[a]		
	RCADS Total (Mother)	17	1.42[a]		
	RCADS Total (Father)	13	0.88[c]		
Esbjørn et al. (2019) [0.7, Very Low]	RCADS Anxiety (Child)	31	0.59[a]		
	RCADS Anxiety (Mother)	31	1.55[a]		
	RCADS Anxiety (Father)	30	0.97[a]		
Green et al. (2022) [1.3, Low]	RCADS Tracked (Parent)	47	0.77*		
Hill et al. (2022) [1, Low-Med]	RCADS Anxiety (Parent)	18	0.69[c]		
Leong et al. (2009) [1.7, Low-Med]	RCMAS (Child)	13	1.06[c]	13	1.13[c]
	SDQ-emotional (Parent)	13	0.89[c]	13	1.35[c]
Thirlwall et al. (2013)					
Brief GPD-CBT [1.3, Low]	SCAS (Child)	40	0.55*	32	1.15*
	SCAS (Parent)	38	0.92*	32	1.21*
Full GPD-CBT [1.3, Low]	SCAS (Child)	47	0.42*	38	0.64*
	SCAS (Parent)	42	0.88*	27	0.96*

Note. 0.2 = Small Effect, 0.5 = Medium Effect, >0.8 = Large Effect (Cohen, 1992)

[a] p <.001, [b] p <.005, [c] p <.05, *insufficient information to obtain precise p-value

Comparative Findings

A summary of effect sizes from RCTs is displayed in Table 7. Based on available data, the most common outcome for which between-groups effect sizes could be calculated was the number of children free from any anxiety disorder diagnosis post-treatment. Given that this is a count-based outcome, effect sizes were calculated as relative risk (RR). In this context, RR expresses the ratio of the probability of recovery from anxiety among children who receive low-intensity GPD-CBT, relative to those that are either waitlisted or receive individual psychotherapy. RR (completers) was calculated for both post-treatment and 6-month follow-up data. In Thirlwall et al. (2013), follow-up data were missing in the waitlist condition. Waitlist remission rate for this study was instead estimated as 19%, based on 6-month wait-list follow-up data from a previous meta-analysis (James et al., 2020).

Thirlwall et al. (2013) found that children receiving full GPD-CBT (5.2 hours of therapist-parent contact) were 3.06 times more likely to recover from all anxiety diagnoses post-treatment, and 2.79 times more likely at 6-month follow-up, relative to children who received no intervention. Children receiving brief GPD-CBT (2.6 hours therapist-parent contact) were only 1.37 times more likely at post-treatment, however this increased to 2.9 times at 6-month follow-up. In Cobham (2012), 19/20 children in the GPD-CBT group had recovered from all anxiety diagnoses at post-treatment, and treatment gains were maintained in 15/20 at follow-up. In the waitlist condition, no children recovered from their diagnosis, which resulted in an infinite RR value. To correct for this, the recovery rate for this group was instead set at 0.5, as recommended by Cochrane (Higgins et al., 2022). This resulted in extremely large standard errors, so a meta-analysis could not be reliably conducted.

A meta-analysis was conducted, however, to determine whether low-intensity GPD-CBT was significantly less effective relative to individual psychotherapy, across three studies that included this comparator. The model was estimated using the metafor package in R (v4.1.3), using the log of the RR and its variance. It found that the difference between individual psychotherapy and low-intensity GPD-CBT was non-significant at post-treatment, $RR_{logged} = 0.14$, $p = .14$, and at 6-months follow-up, $RR_{logged} = 0.04$, $p = 0.69$. Egger's test for funnel plot asymmetry (Appendix I) suggested there was no significant publication bias for post-treatment, $p = 0.72$, or 6-months follow-up, $p = 0.65$. Forest plots are displayed in Appendix J.

Table 7

Relative Risk for GPD-CBT compared to waitlist or individual psychotherapy

Study	Intervention (N_1, N_2)	Comparison (N_1, N_2)	RR [95% CIs]	
			Post-treatment	6-Months
Cobham (2012)	GPD-CBT (20, 20)	Individual CBT (23, 23)	1.21 [0.96, 1.53]	0.96 [0.69, 1.34]
		Waitlist (13, 13)	23.75* [1.57, 359.69]	18.75* [1.23, 286.79]
Creswell et al. (2017)	GPD-CBT (55, 56)	Individual SFBT (65, 62)	0.99 [0.67, 1.46]	1.08 [0.79, 1.46]
Leong et al. (2009)	GPD-CBT (13, 13)	Individual CBT (14, 14)	1.21 [0.68, 2.17]	1.21 [0.68, 2.17]
Thirlwall et al. (2013)	Brief GPD-CBT (46, 38)	Waitlist (63, N/A)	1.37 [0.52, 3.64]	2.90 [1.62, 5.20]
	Full GPD-CBT (50, 49)	Waitlist (63, N/A)	3.06 [1.38, 6.80]	2.79 [1.57, 4.94]

Note. N1 = at post-treatment; N2 = at 6-months follow-up; SFBT = Solution-focused behavioural therapy; *Corrected values

Conclusions and Recommendations

This review evaluated the effectiveness of low-intensity GPD-CBT interventions. Ten studies met inclusion criteria. One received medium-high score for WoE D (Cobham, 2012), whereas most were clustered around low. These generally low scores reflected moderate-high risk of bias (WoE A) and several uncontrolled pre-post designs (WoE B). Further, while all interventions were low-intensity with respect to total therapist-contact hours (due to the inclusion criteria), few contained

other key elements of low-intensity approaches, such as paraprofessional delivery or individual therapist sessions of less than 30 minutes (Shafran et al., 2022). Nonetheless, six studies involved a non-clinical (school or community) referral context, suggesting generalisability to EP practice.

Findings were promising in spite of low WoE D scores. Meta-analyses revealed a large effect of the intervention on parent-rated child anxiety symptoms at post-treatment (d = 0.91), and, where data were available, 6-month follow-up (d = 1.12). Interestingly, the effect was not significantly moderated by amount of total therapist contact. All GPD-CBT interventions covered by the present review included similar content, duration, and treatment progression (e.g. psychoeducation, cognitive restructuring, graduated exposure) to traditional CBT. Hence, a possible explanation is that the amount of therapist contact does not make a difference, insofar as parents are sufficiently supported to deliver this core content. This may present an argument for more flexible models, whereby parents seek therapist support according to need, rather than according to a set schedule.

Interpretation of these findings should be approached with caution, however. First, there was limited variability in the total therapist time across studies, which may have impacted the ability to detect true moderation effects. Future studies should make use of designs like Thirlwall et al. (2013), which allow direct investigation of the impact of therapist time on outcomes. Further, the fact that parents both delivered the intervention and rated the outcome probably introduced bias, due to a desire to see their child's symptoms improve and to perceive themselves as effective parents. Indeed, despite evidence of publication bias, it is noteworthy that child-rated effects tended to be smaller. While several studies involved clinician-rated measures,

inconsistency across studies with respect to their use made it difficult to synthesise effects and future studies should endeavour to use clinician or other independently rated measures wherever possible. Finally, meta-analyses of pre-post effect sizes can be biased and subject to confounding (Cuijpers et al., 2017). This underscores the need for more RCTs to evaluate the effectiveness of these interventions.

Nonetheless, findings from two available RCTs suggested that low-intensity GPD-CBT was far superior to waitlist in achieving remission for all anxiety disorders, even with only 2.6 hours therapist-parent contact. Further, a meta-analysis of three RCTs found the intervention to be no less effective at post-treatment and six months follow-up relative to individual, evidence-based psychotherapies (either CBT or SFBT), which are gold-standard interventions for anxiety in children. This appeared to be the case at post-treatment and six-month follow-up, providing preliminary evidence for the idea that low-intensity GPD-CBT likely does not trade-off reduced effectiveness for greater efficiency.

Practice Implications

Low-intensity GPD-CBT appears effective in reducing anxiety in school-aged children, and EPs are well-placed to suggest this kind of intervention as a first-line response. Evidence suggests that such interventions can be implemented flexibly, insofar as the core content of CBT is sufficiently covered. The amount of therapist support could potentially vary based on individual need, and EPs could either provide this support themselves, or commission it through school or local-authority linked paraprofessionals (e.g. CWPs). Two considerations should be mentioned, however. First, studies suffered from high rates of parent non-adherence, particularly those with short individual therapist contact times (e.g. Green et al., 2022). This

suggests that the lower intensity the approach is, the more chance there is for parents to disengage from the intervention, so EPs should take steps to mitigate this. Second, children who present with severe levels of anxiety on referral, or who do not respond favourably, should be referred to more intensive treatment (e.g. CAMHS). Otherwise, preliminary evidence suggests that low-intensity GPD-CBT may be as effective as individual psychotherapy in many cases, and a valuable approach for treating anxiety in the context of EP practice.

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Appendices

Appendix A: List of Excluded Studies with Reasons

Study	Reason
Brown et al. (2017)	5b – Not original data
Byrne et al. (2021)	2d – Therapist contact over 6 hours
Cartwright-Hatton et al. (2011)	2d – Therapist contact over 6 hours
Cartwright-Hatton et al. (2005)	2d – Therapist contact over 6 hours
Chatterton et al. (2019)	2b – Contact between child and therapist
Chavira et al. (2018)	2d – Therapist contact over 6 hours
Chavira et al. (2014)	2d – Therapist contact over 6 hours
Cobham et al. (2017)	2d – Therapist contact over 6 hours
Eisen et al. (2008)	2b – Contact between child and therapist
Evans et al. (2019)	2d – Therapist contact over 6 hours
Guzick et al. (2022)	2d – Therapist contact over 6 hours
Jewell et al. (2022)	1a – Included children under 5
Lebowitz et al., (2020)	2d – Therapist contact over 6 hours
Lebowitz et al. (2014)	2d – Therapist contact over 6 hours
Lebowitz et al. (2021)	2d – Therapist contact over 6 hours
Lyneham and Rapee (2006)	2b – Contact between child and therapist
Mendelowitz et al. (1999)	2d – Therapist contact over 6 hours
McKinnon et al. (2018)	2d – Format/duration not reported
Monga et al. (2015)	2d – Therapist contact over 6 hours
Ancestral: Morgan et al. (2017)	1a – Included children under 5
Morgan et al. (2018)	1a – Included children under 5
Radtke et al. (2022)	1a – Included children under 5
Ancestral: Rapee et al. (2006)	2c – Not therapist-supported
Rapee et al. (2021)	2b – Contact between child and therapist
Salari et al (2018)	2d – Therapist contact over 6 hours
Smith et al. (2018)	2d – Therapist contact over 6 hours
Theinemann et al (2005)	2d – Therapist contact over 6 hours
Thirlwall et al. (2017)	5b – Not original data
Van der Sluis et al. (2012)	1a – Included children under 5
Waters et al. (2009)	1a – Included children under 5

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Appendix B: Coding Protocols for Weight of Evidence A

Randomised Controlled Trials

The protocol used to determine WoE A scores for included studies that were RCTs (*N* = 4) was adapted from version 2 of the Cochrane tool for assessing risk of bias (RoB) in randomised trials (Rob-2) (Sterne et al., 2019) (RoB-2). Much like quality control checklists, RoB ascertains the extent to which a study's results and conclusions are valid. The benefit of this approach, however, is that it measures not only the underlying methodological quality, but also the quality and transparency of reporting (Higgins et al., 2022). RoB tools assess for bias risk potentially arising from different domains (e.g. randomisation processes, missing data etc.), allowing a conclusion about overall risk (low/some concerns/high) to be reached. The following amendments were made to the screening tool:

- Items 2.1 through 2.3 were removed as they pertain to intervention implementers *knowledge* of which arm of the intervention they were assigned to. In studies of psychotherapy interventions, such as the ones included in the present review, this is almost always the case. Hence, it does not meaningfully distinguish between different studies in this context.
- Item 3.1 ("Were data for this outcome available for all, or nearly all, participants randomized?") was answered with respect to data *post-*

intervention, and did not account for data lost to subsequent follow-ups because presence and length of follow-ups varied across studies.

Non-controlled Trials

The protocol to determine WoE A for included studies that were non-controlled (*N* = 6) was adapted from the Cochrane collaboration's Risk of Bias in non-randomised studies of interventions (ROBINS-I). The tool assesses for bias potentially arising from different domains relating to non-controlled trials of an intervention, allowing an overall judgement about risk of bias to be reached. The following adjustments were made to the tool:

- Domain 1 involves a qualitative description of various confounders of the treatment effect. This was omitted for the following reason: (i) confounders across the different studies would broadly be the same (i.e. therapeutic contact, additional attention from parents), and (ii) confounders of this nature will almost always be present in trials of psychological interventions, (iii) in the present review, reductions in the weight of evidence afforded to trials without a control group is accounted for in WoE B (design) Hence, Domain 1 wouldn't meaningfully distinguish between studies.
- The entirety of domain 3, along with items from other domains, 4.3, 5.2, 5.4, 6.3 and 6.4, were omitted as they pertain to observational studies of comparative interventions, whereas all the non-RCTs included only measured a single intervention
- The classification of risk as low/high/some concerns from the RoB-2 tool was maintained here, rather than the more specific ratings provided in the

ROBINS-I tool. This was done as to more easily translate to a score out of 3 for WoE A.

Overall Risk of Bias Judgements and Weight of Evidence

In the RoB protocol, the overall level of bias is judged as equivalent to the most severe level of bias in a single assessed domain. However, studies that raise 'some concerns' in multiple domains can be classed as 'high' risk at the researcher's discretion. For the purpose of this assessment, RCTs with 'some concerns' in 4/5 domains were to be considered 'high' risk, however this did not occur. Overall RoB judgements were translated into WoE A scores as follows: studies with a 'low' RoB scored 3, studies with 'some concerns' scored 2, and studies with 'high' RoB scored 1. Table B1 displays RoB judgements and equivalent WoE scores for each study. One example of each of the completed rating protocols (for RCTs and non-controlled trials, respectively) are displayed on the next page.

Table B1

Scores and RoB Ratings for Included Studies on Weight of Evidence (WoE) A

Study	Design	RoB	WoE A
Breinholst et al. (2021)	Non-controlled	High	1
Cobham (2012)	RCT	Low	3
Creswell et al. (2010)	Non-controlled	Some concerns	2
Creswell et al. (2017)	RCT	Some concerns	2
Esbjørn et al. (2016)	Non-controlled	Some concerns	2
Esbjørn et al. (2019)	Non-controlled	Some concerns	2
Green et al. (2022)	Non-controlled	High	1
Hill et al. (2022)	Non-controlled	High	1
Leong et al. (2009)	RCT	Some concerns	2
Thirlwall et al. (2013)	RCT	Some concerns	2

EXAMPLE 1: Cobham (2012) [RCT]

Full study reference: Cobham, V. E. (2012). Do anxiety-disordered children need to come into the clinic for efficacious treatment?. *Journal of consulting and clinical psychology, 80*(3), 465.

For the purposes of this assessment, the interventions being compared are defined as:

Experimental: Parent-delivered therapist-supported CBT

Comparator: Face-to-face CBT

Domain 1: *Risk of bias arising from the randomisation process*

Signalling questions	**Response options**
1.1 Was the allocation sequence random	**Y** / PY / PN / N / NI
1.2 Was the allocation sequence concealed until participants were enrolled and assigned to interventions?	**Y** / PY / PN / N / NI
1.3 Did baseline differences between intervention groups suggest a problem with the randomization process?	Y / PY / PN / **N** / NI
Risk-of-bias judgement	**Low** / High / Some concerns

Domain 2: *Risk of bias due to due to deviations from the intended interventions*

Signalling questions	**Response options**
2.3. Were important non-protocol interventions balanced across intervention groups?	**NA** / Y / PY / PN / N / NI
2.4**.** Were there failures in implementing the intervention that could have affected the outcome?	Y / PY / PN / **N** / NI
2.5. Was there non-adherence to the assigned intervention regimen that could have affected participants' outcomes?	NA / Y / PY / **PN** / N / NI
2.6. **If N/PN/NI to 2.3, or Y/PY/NI to 2.4 or 2.5:** Was an appropriate analysis used to estimate the effect of adhering to the intervention?	NA / Y / PY / **PN** / **N** / NI
Risk-of-bias judgement	**Low** / High / Some concerns

Domain 3: *Missing outcome data*

Signalling questions	**Response options**
3.1 Were data for this outcome available for all, or nearly all, participants randomized?	**Y** / PY / PN / N / NI
3.2 **If N/PN/NI to 3.1:** Is there evidence that the result was not biased by missing outcome data?	**NA** / Y / PY / PN / N
3.3 **If N/PN to 3.2:** Could missingness in the outcome depend on its true value?	**NA** / Y / PY / PN / N / NI
3.4 **If Y/PY/NI to 3.3:** Is it likely that missingness in the outcome depended on its true value?	**NA** / Y / PY / PN / N / NI
Risk-of-bias judgement	**Low** / High / Some concerns

Domain 4: *Risk of bias in measurement of the outcome*

Signalling questions	**Response options**
4.1 Was the method of measuring the outcome inappropriate?	Y / PY / PN / **N** / NI
4.2 Could measurement or ascertainment of the outcome have differed between intervention groups?	**Y** / PY / PN / N / NI
4.3 If **N/PN/NI to 4.1 and 4.2:** Were outcome assessors aware of the intervention received by study participants?	NA / Y / PY / PN / **N** / NI
4.4 If **Y/PY/NI to 4.3:** Could assessment of the outcome have been influenced by knowledge of intervention received?	NA / **Y** / PY / PN / N / NI
4.5 **If Y/PY/NI to 4.4:** Is it likely that assessment of the outcome was influenced by knowledge of intervention received?	NA / Y / PY / PN / **N** / NI
Risk-of-bias judgement	**Low** / High / Some concerns

Domain 5: *Risk of bias in selection of the reported result*

Signalling questions	**Response options**
5.1 Were the data that produced this result analysed in accordance with a pre-specified analysis plan that was finalized before unblinded outcome data were available for analysis?	Y / PY / PN / N / **NI**
Is the numerical result being assessed likely to have been selected, on the basis of the results, from...	
5.2. ... multiple eligible outcome measurements (e.g. scales, definitions, time points) within the outcome domain?	Y / PY / PN / **N** / NI
5.3 ... multiple eligible analyses of the data?	Y / PY / PN / **N** / NI
Risk-of-bias judgement	**Low** / High / Some concerns

Overall risk of bias judgement: Low; **Score on WoE A** = 3

EXAMPLE 2: Breinholst et al. (2021) [Non-controlled]

Full Study Reference: Breinholst, S., Walczak, M., Christiansen, B., & Esbjørn, B. (2021). A therapist-guided parent-delivered self-help group for anxiety disorders in children: An effectiveness study. *Journal of Behavioral and Cognitive Therapy*, *31*(2), 105-113.

Domain 2: Bias in selection of participants into the study

Signalling questions	**Response options**
2.1. Was selection of participants into the study (or into the analysis) based on participant characteristics observed after the start of intervention? **If N/PN to 2.1: go to 2.4**	Y / PY / PN / **N** / NI
2.2. If Y/PY to 2.1: Were the post-intervention variables that influenced selection likely to be associated with intervention? 2.3 **If Y/PY to 2.2:** Were the post-intervention variables that influenced selection likely to be influenced by the outcome or a cause of the outcome?	**NA** / Y / PY / PN / N / NI **NA** / Y / PY / PN / N / NI
2.4. Do start of follow-up and start of intervention coincide for most participants? *Follow-ups were all completed in Summer 2018; and the intervention involved the same timeline for all participants*	**Y** / PY / PN / N / NI
2.5**. If Y/PY to 2.2 and 2.3, or N/PN to 2.4:** Were adjustment techniques used that are likely to correct for the presence of selection biases?	**NA** / Y / PY / PN / N / NI
Risk of bias judgement	**Low** / High / Some concerns

Domain 4: Bias due to deviations from intended interventions

Signalling questions	**Response options**
4.4. Was the intervention implemented successfully for most participants? *No information given about protocol fidelity*	NA / Y / PY / PN / N / **NI**

4.5. Did study participants adhere to the assigned intervention regimen?	NA / Y / PY / PN / N / **NI**
4.6. **If N/PN to 4.3, 4.4 or 4.5:** Was an appropriate analysis used to estimate the effect of starting and adhering to the intervention?	NA / Y / PY / PN / **N** / NI
Risk of bias judgement	Low / High / **Some concerns**

Domain 5: Bias due to missing data

Signalling questions	**Response options**
5.1 Were outcome data available for all, or nearly all, participants?	NA / Y / PY / PN / **N** / NI
5.3 Were participants excluded due to missing data on variables needed for the analysis?	NA / Y / PY / PN / **N** / NI
5.5 **If PN/N to 5.1, or Y/PY to 5.2 or 5.3:** Is there evidence that results were robust to the presence of missing data?	NA / **Y** / PY / PN / N / NI
Risk of bias judgement	**Low** / High / Some concerns

Domain 6: Bias in measurement of outcomes

Signalling questions	**Response options**
6.1 Could the outcome measure have been influenced by knowledge of the intervention received?	NA / **Y** / PY / PN / N / NI
6.2 Were outcome assessors aware of the intervention received by study participants? (e.g. were assessors of outcome data independent?) *Assessments were completed by 'staff at the centre of anxiety', and not by therapists delivering the intervention or research coordinators, however it isn't clear if they knew the nature of the intervention or had a vested interest*	NA / Y / PY / PN / N / **NI**
Risk of bias judgement	Low / High / **Some concerns**

Domain 7: Bias due to selection of the reported result

Signalling questions	**Response options**
Is the reported effect estimate likely to be selected, on the basis of the results, from...	NA / Y / PY / PN / N / NI
7.1. ... multiple outcome *measurements* within the outcome domain?	NA / Y / PY / PN / **N** / NI
7.2 ... multiple *analyses* of the intervention-outcome relationship?	NA / Y / PY / PN **/ N** / NI

7.3 ... different *subgroups*?	NA / **Y** / PY / PN / N / NI
Risk of bias judgement	Low / High / **Some concerns**

Overall risk of bias judgement: some concerns, **Score on WoE A:** 2/3

Appendix C: Criteria for Weight of Evidence B

Weight of Evidence (WoE B) involves a judgement about the suitability of the study design to answering the review question. Given that this review poses an effectiveness question, randomised-controlled trials (RCTs) provide the most robust evidence (Petticrew & Roberts, 2003). Hence, RCTs were afforded a higher weighting. However, included RCTs differed in their design slightly, either comparing the intervention of interest against a waitlist control, an evidence-based, individual psychotherapy condition (i.e. a gold-standard treatment for childhood anxiety), or both. Non-controlled studies differed in that some included a 6-month follow-up, to ascertain the extent to which post-treatment gains were actually maintained over time. The following criteria, displayed in Table C1, were devised to distinguish between the different types of RCTs and non-controlled studies. Given that all of the RCTs included a 6-month follow-up, this criterion is only used to distinguish between non-controlled studies, as it would not meaningfully differentiate between RCTs. Studies with only a 1-month follow-up (e.g. Green et al., 2022) were not considered to have met this criterion, as the follow-up period is insufficiently long to dissociate attention effects. Scores for each study are displayed in Table C2.

Table C1

Criteria for Weight of Evidence (WoE) B

Score	Criteria	Rationale
3 (High)	RCTs where a low-intensity GPD-CBT approach is compared against a waitlist control *and* an (evidence-based) individual psychotherapy condition	Isolates the effect of low-intensity GPD-CBT through differential evaluation of its effectiveness relative to no intervention, and to a gold-standard treatment
2 (Medium)	RCTs where a low-intensity GPD-CBT approach is compared against wait-list control *or* an (evidence-based) individual psychotherapy condition	Allows estimation of a treatment effect relative to a gold-standard treatment *or* to no intervention, however does not isolate the effects of low-intensity GPD-CBT
1 (Low)	Intervention studies *with* a 6-month follow-up where all participants receive low-intensity GPD-CBT	Susceptible to cohort effects, however allows estimation of whether treatment gains are maintained over a considerable period of time to dissociate potential attention effects
0 (Very Low)	Intervention studies *without* a 6-month follow-up where all participants receive low-intensity GPD-CBT	Susceptible to cohort effects and the possibility that treatment effects are only due to increased attention from parents across the intervention period

Table C2

Design Characteristics and WoE B Scores for Included Studies

Study	Description	WoE B
Breinholst et al. (2021)	Non-controlled (with follow-up)	1 (Low)
Cobham (2012)	Individual Therapy & Waitlist	3 (High)
Creswell et al. (2010)	Non-controlled (no follow-up)	0 (Very Low)
Creswell et al. (2017)	Individual Therapy	2 (Medium)
Esbjørn et al. (2016)	Non-controlled (no follow-up)	0 (Very Low)
Esbjørn et al. (2019)	Non-controlled (no follow-up)	0 (Very Low)
Green et al. (2022)	Non-controlled (no follow-up)	0 (Very Low)
Hill et al. (2022)	Non-controlled (no follow-up)	0 (Very Low)
Leong et al. (2009)	Individual Therapy	2 (Medium)
Thirlwall et al. (2013)	Waitlist	2 (Medium)

Appendix D: Criteria for Weight of Evidence C

WoE C criteria, displayed in Table D1, were constructed with consideration of three dimensions: (a) and (b) considered the extent to which the intervention approximated a 'low-intensity' CBT intervention. They were derived from the aspects of Shafran et al's (2022) definition that did not form part of the inclusion criteria for the review. Criteria (c) considered whether the referral context for children receiving the intervention was similar to EP practice. Each study received either 1 or 0 points for each dimension, yielding a score out of 3. This is displayed in Table D2. The information used to allocate points can be found in the 'mapping the field' table.

Table D1

Criteria for Weight of Evidence (WoE) C

Score	1	0	Rationale
(a)	Therapist support for parents is provided by a paraprofessional (i.e. not a psychologist)	Therapist support for parents is provided by a psychologist (i.e. clinical or educational)	Low intensity CBT involves input from paraprofessionals (Shafran et al., 2022).
(b)	Sessions of parent-therapist contact are generally around 30 minutes or less	Intervention involves sessions of parent-therapist contact of over 30 minutes	Low intensity CBT generally involves sessions lasting less than 30 minutes each (Shafran et al., 2022)
(c)	Children were referred to the intervention through a school or general community	Children are referred to the intervention through a mental health clinic (e.g. CAMHS)	The review seeks to evaluate the applicability of the intervention to EP practice (i.e. as opposed to clinical psychology)

Table D2

Scores for Included Studies on Weight of Evidence (WoE) C

Study	A	B	C	Total
Breinholst et al. (2021)	0	0	1	1
Cobham (2012)	0	0	1*	1
Creswell et al. (2010)	0	0	0	0
Creswell et al. (2017)	1	0	0	1
Esbjørn et al. (2016)	0	0	1	1
Esbjørn et al. (2019)	0	0	1	1
Green et al. (2022)	1	1	1	3
Hill et al. (2022)	1	1	0	2
Leong et al. (2009)	0	0	1*	1
Thirlwall et al. (2013)	0	0	0	0

*Some referrals in these studies were from GPs and other professionals, however most were parent and teacher-initiated; the sample did not include children already referred to a clinic.

Appendix E: Function for Estimating Pre-Post Effect Size Variances

Sampling variances for pre-post effect sizes were estimated with the following function:

function(ni, di) {(1/ni)+di^2/(2*ni*(ni-1))}

ni = sample size

di = effect size

Appendix F: Funnel Plots of Pre-Post Effects on Child-Rated Anxiety

Figure F1

Funnel Plot of Effects on Child-Rated Anxiety Pre-treatment to Post-treatment

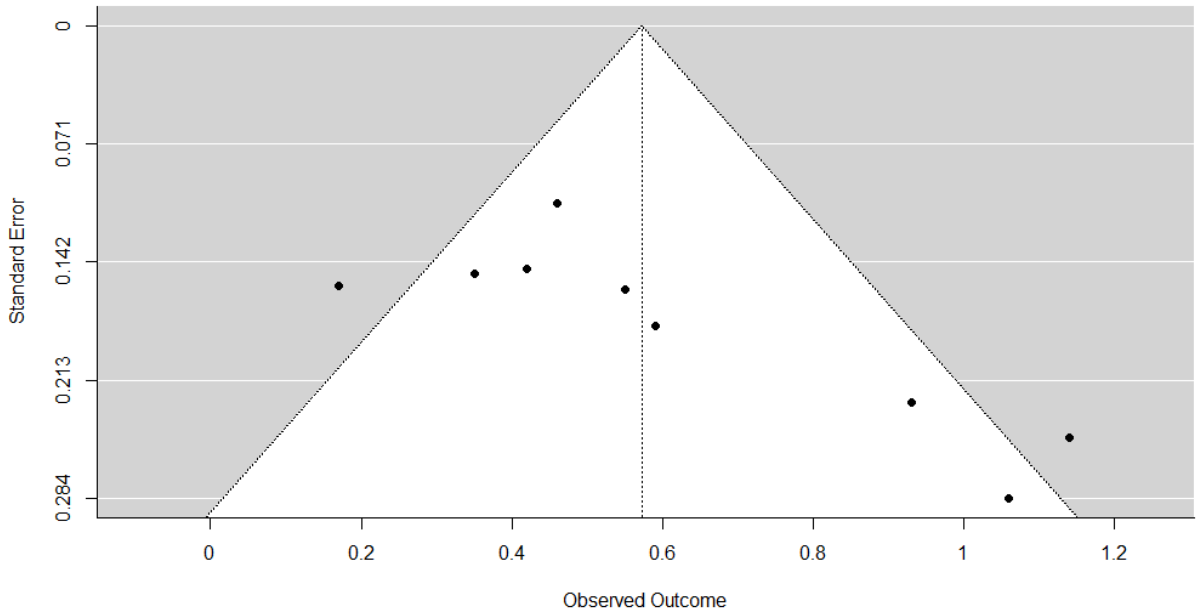
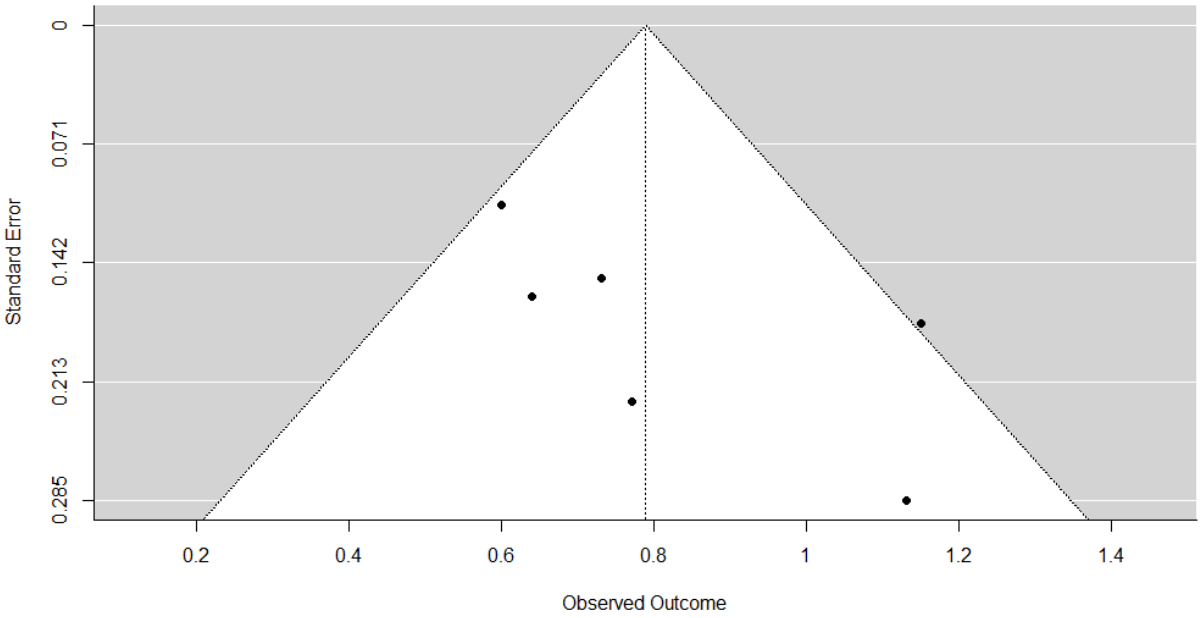


Figure F2

Funnel Plot of Effects on Child-Rated Anxiety Pre-treatment to Follow-up



Appendix G: Funnel Plots of Pre-Post Effects on Parent-Rated Anxiety

Figure G1

Funnel Plot of Effects on Parent-Rated Anxiety Pre-treatment to Post-treatment

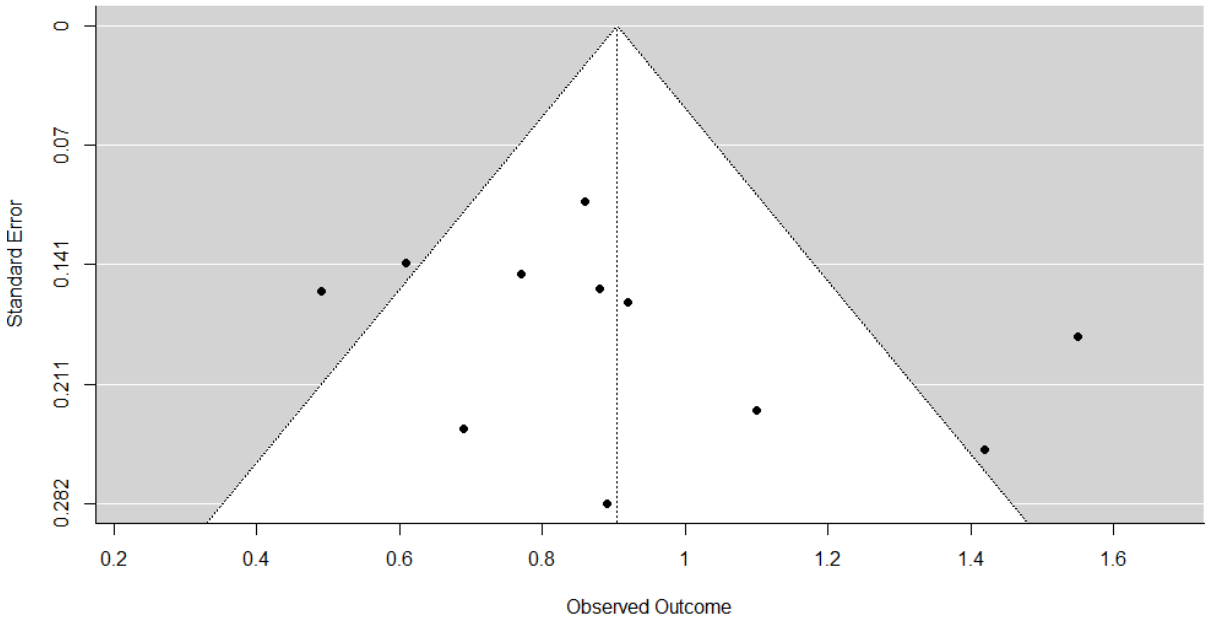
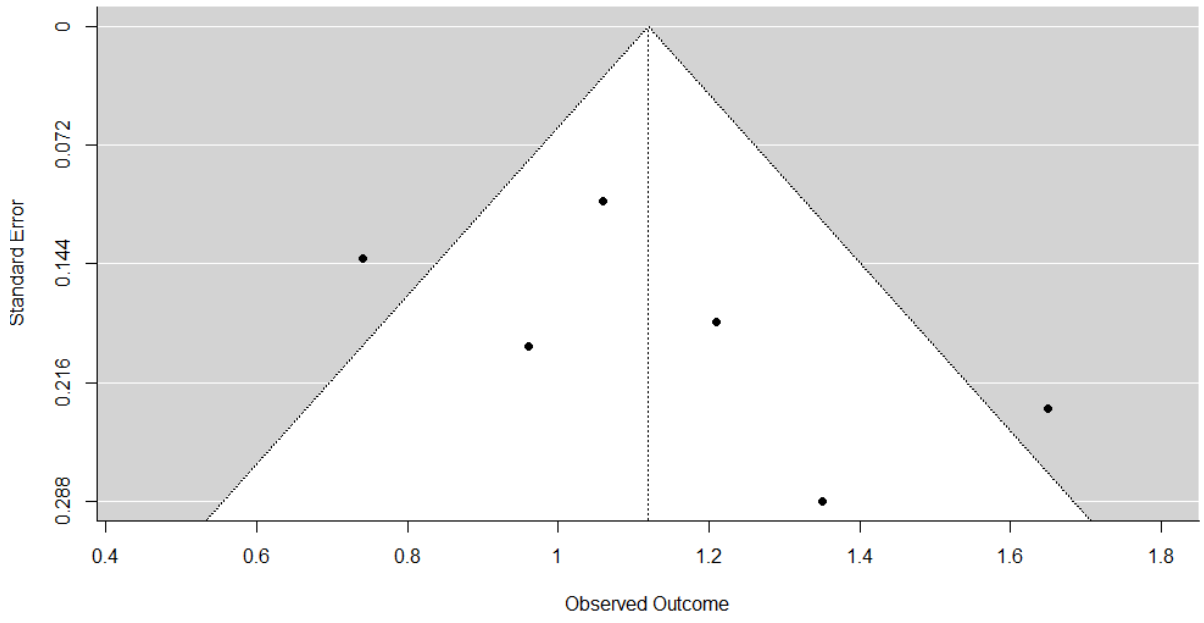


Figure G2

Funnel Plot of Effects on Parent-Rated Anxiety Pre-treatment to Follow-up



Appendix H: Forest Plots of Pre-Post Effects on Parent-Rated Anxiety

Figure H1

Forest Plot of Effects on Parent-Rated Anxiety Pre-treatment to Post-treatment

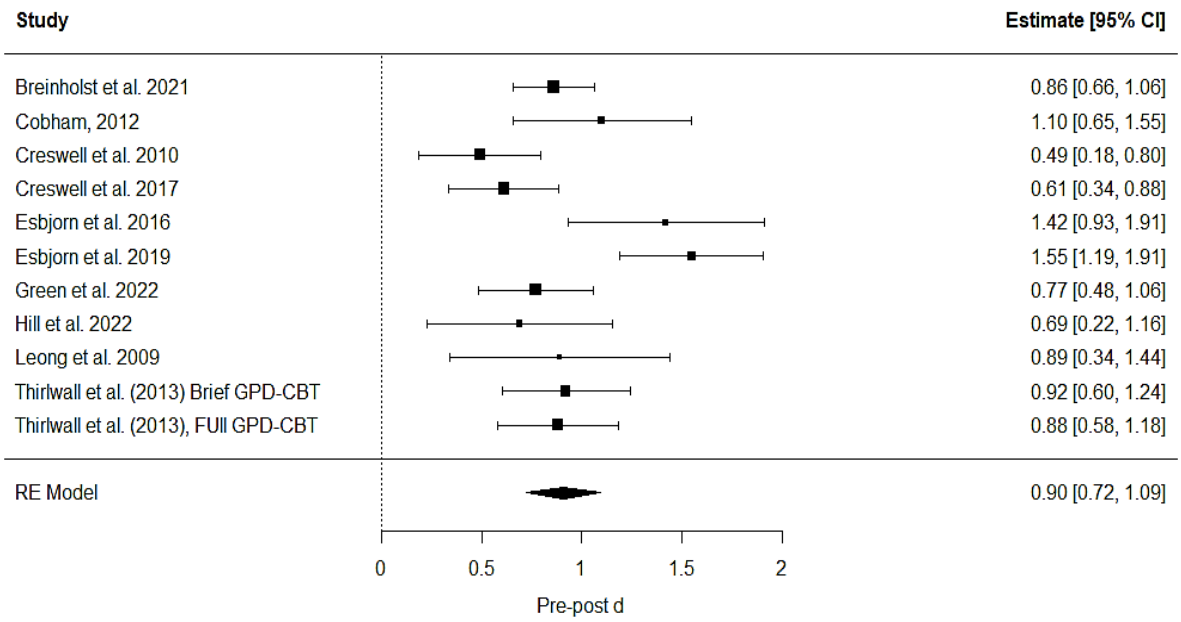
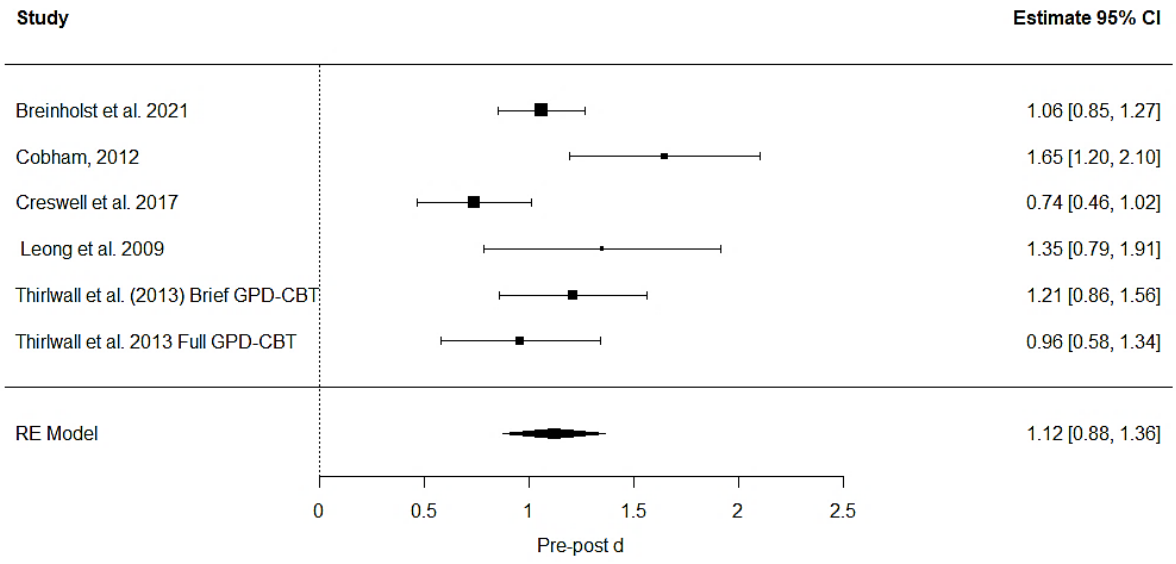


Figure H2

Forest Plot of Effects on Parent-Rated Anxiety Pre-treatment to Follow-up



Appendix I: Funnel Plots of Effects of GPD-CBT Relative to Psychotherapy

Figure I1

Funnel Plot of Logged Risk Ratios for The Effect of GPD-CBT Compared to Individual Psychotherapy on Remission from All Anxiety Disorders at Post-Treatment

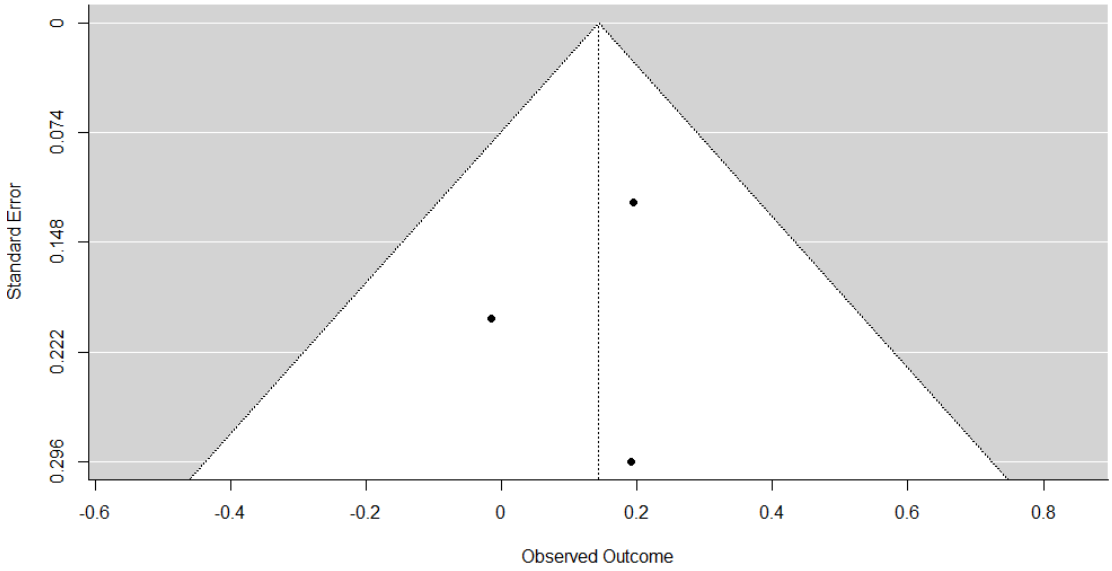
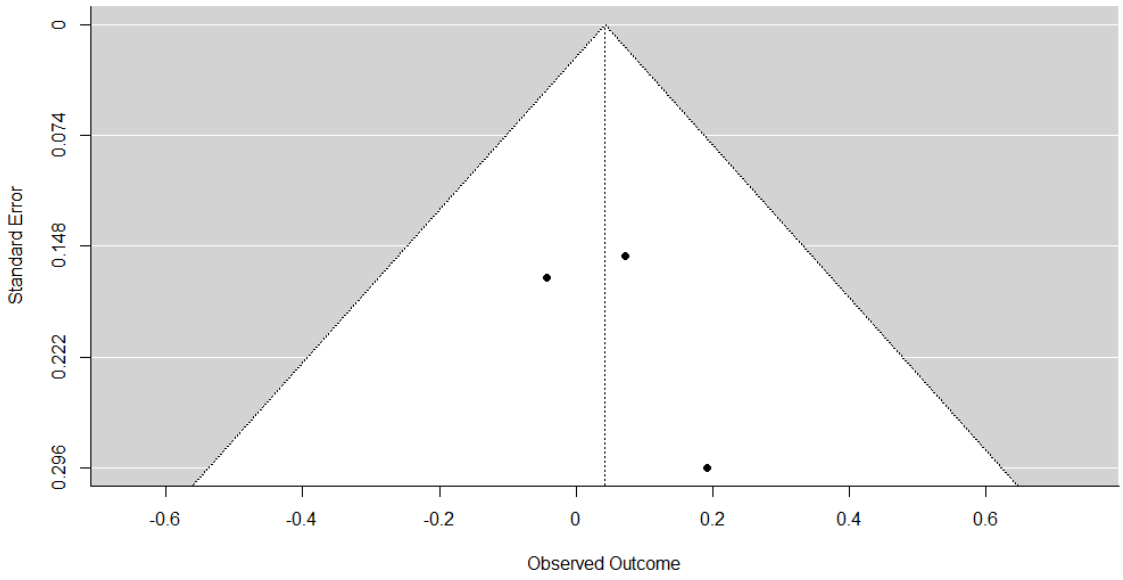


Figure I2

Funnel Plot of Logged Risk Ratios for The Effect of GPD-CBT Compared to Individual Psychotherapy on Remission from All Anxiety Disorders at Follow-up


Standard Error
0
0.074
0.148
0.222
0.296
-0.6
-0.4
-0.2
0
0.2
0.4
0.6
Observed Outcome

Appendix J: Forest Plots of Effects of GPD-CBT Relative to Psychotherapy

Figure J1

Forest Plot of Logged Risk Ratios for The Effect of GPD-CBT Compared to Individual Psychotherapy on Remission from All Anxiety Disorders at Post-Treatment

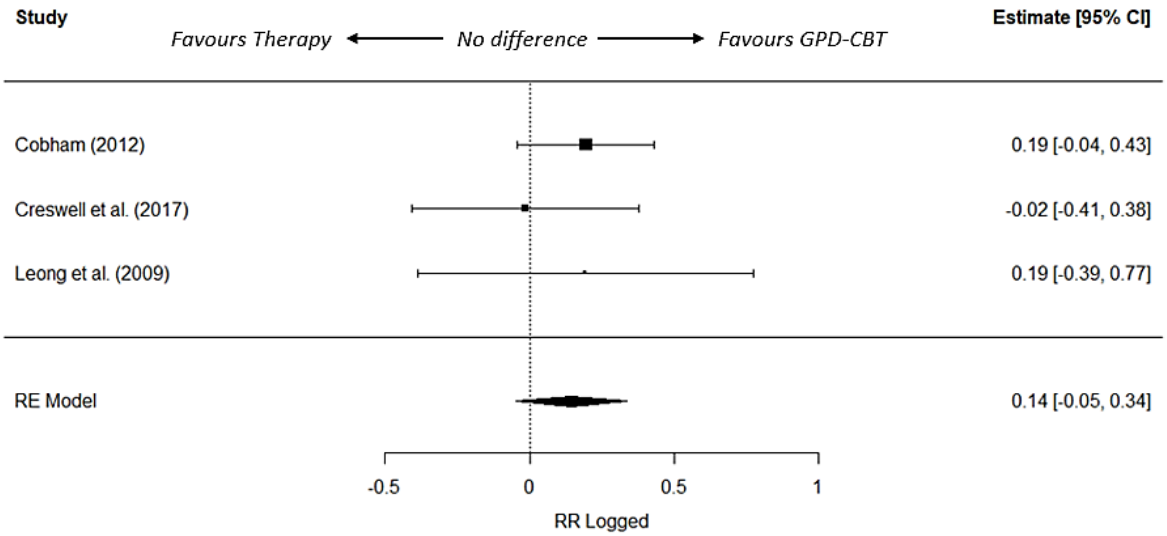


Figure J2

Forest Plot of Logged Risk Ratios for The Effect of GPD-CBT Compared to Individual Psychotherapy on Remission from All Anxiety Disorders at Follow-up