

## Should Parents Be Co-Clients in Cognitive–Behavioral Therapy for Anxious Youth?

**Andrea J. Barmish and Philip C. Kendall**

*Child and Adolescent Anxiety Disorders Clinic, Department of Psychology, Temple University*

*Cognitive–behavioral therapy (CBT) for anxiety disorders in youth has been evaluated in randomized clinical trials (RCTs), and recent studies have sought to determine if the effects can be enhanced by an adjunctive parent component. The rationale for adding parents as active participants to treatment for anxious youth includes the notions that parenting factors (a) can contribute to the maintenance of anxiety, (b) could facilitate the generalization of treatment gains, and (c) have had favorable results in treatment of other childhood disorders. To date, there have been 9 CBT treatment outcome trials with anxious youth that included parents in treatment. This article (a) provides a critical review of the research on active parent involvement in CBT of anxious youth, (b) calculates and reports effect sizes emerging from these studies, and (c) recommends areas for future research.*

Anxiety disorders are common among childhood disorders, affecting approximately 12% of the population (Warren & Messer, 1999). If untreated, anxiety may persist and disrupt emotional development and overall functioning. Untreated anxiety can lead to chronic emotional problems and potential substance use problems (Kendall, Safford, Flannery-Schroeder, & Webb, 2004). Children with social phobia (SP), for example, do not seem to outgrow their problems, and these problems may in fact worsen over time (Beidel, Fink, & Turner, 1996). The potentially chronic and debilitating course of untreated anxiety highlights the importance of early intervention.

The results from randomized clinical trials (RCTs) reported to date support the utility of child-focused cognitive–behavioral therapy (CBT) for treating anxious children and adolescents (e.g., Barrett, Dadds, & Rapee, 1996; Kendall et al., 1997). The CBT model represents an amalgam of cognitive, behavioral, emotive, and social strategies for change (Kendall, Aschenbrand, & Hudson, 2003). The model reflects a multidimensional conceptualization of anxiety in youth, emphasizing cognitive biases toward threat, avoidant behavior, and anxious affect and its resultant physiological arousal.

CBT helps the child (a) recognize anxious feelings and somatic reactions to anxiety, (b) clarify cognition in anxiety-provoking situations, (c) develop a plan to help cope with the situation (modifying anxious self-talk into coping self-talk as well as determining what coping actions might be effective), and (d) evaluate

performance and administer self-reinforcement as appropriate. In one version of CBT, these components are presented as the FEAR plan—a way of helping youth remember what to do when they get nervous (i.e., F = Feeling frightened? E = Expecting bad things will happen? A = Actions and Attitudes that will help, and R = Results and Rewards; Kendall, 1990). Behavioral strategies include modeling, exposure tasks, role-playing, relaxation training, and rewards for effort. Using the criteria for determining empirically supported treatments (Chambless & Hollon, 1998), reviews have concluded that child-focused CBT is a probably efficacious treatment for anxious youth (e.g., Albano & Kendall, 2002; Kazdin & Weisz, 1998; Ollendick & King, 1998).

### **Rationale for Including Parents as Co-Clients in CBT**

Although CBT can be said to be efficacious for anxious youth, the variability in success rates reported across studies suggests the need to consider moderators that may influence success. Indeed, studies have sought to identify variables that are associated with variations in response to CBT in an attempt to inform decisions as to how to increase the number of responders as well as enhance overall efficacy (e.g., Berman, Weems, Silverman, & Kurtines, 2000; Crawford & Manassis, 2001; Southam-Gerow, Kendall, & Weersing, 2001).

Southam-Gerow et al. (2001) reported that, among other variables, higher levels of maternal self-reported depressive symptoms was associated with a less favorable treatment response. Likewise, Berman et al.

---

Requests for reprints should be sent to Philip C. Kendall, Department of Psychology, Weiss Hall, Temple University, Philadelphia, PA 19122. E-mail: pkendall@temple.edu

(2000) found that the following parental symptoms successfully differentiated a treatment failure group from positive responders: higher global severity ratings on the Symptom Check List; higher scores on Obsessive–Compulsive, Psychoticism, Depression, Hostility, and Paranoia subscales of the Symptom Check List; higher levels of self-reported depression (using the Beck Depression Inventory); and higher levels of fear (using the Fear Questionnaire). Child reports of family dysfunction (using the Brief Symptom Inventory and Parenting Stress Index completed by parents) and parental frustration at pretreatment were significant predictors of treatment outcome: Children who perceived more problems in their families were less likely to improve with treatment (Crawford & Manassis, 2001).

These findings suggest that parental and family factors are related to the probability of successful treatment outcome. Following from that, it seems reasonable to hypothesize that addressing parental psychopathology and family functioning in treatment would lead to greater treatment response rates. Theorists have argued that because children are incredibly reliant on their family environment, an improved model of treatment would be one that is premised on an interpersonal conceptualization of youth anxiety and that aims to employ interventions at the social (e.g., familial) rather than individual levels (Barrett, 2000). Furthermore, including parents in the treatment of externalizing disorders in childhood (e.g., oppositional, aggressive, and antisocial behavior) has been documented as beneficial to treatment success (Kazdin, 1997; Patterson, Chamberlain, & Reid, 1982; Woolfenden, Williams, & Peat, 2002).

One potential advantage of an approach that actively incorporates parents is treatment generalizability. A second potential advantage is that parents can aid in the maintenance of gains at the termination of therapy (Ginsburg, Silverman, & Kurtines, 1995). If courageous (nonanxious) behavior and cognition become part of the child's *and* the parents' repertoires, treatment gains are more likely to successfully generalize and be maintained (e.g., Barrett, Rapee, Dadds, & Ryan, 1996; Kendall, MacDonald, & Treadwell, 1995). One interesting way of viewing this change involves the notion of transfer of control of remedial knowledge, skills, and methods—from the expert therapist, to the parent, and then to the child (Silverman & Kurtines, 1999). The transfer of control involves training the parents in contingency management and then having them use this skill set to encourage child exposures. Gradually, parental control wanes and the child learns to implement self-control techniques. According to the model, parental anxious symptoms and high levels of family control and conflict are the two key variables that may well block the transfer of control and thus limit the effectiveness and upholding of child-

hood treatment. Ginsburg et al. (1995) described how parents might have a difficult time encouraging their child's exposure if they cannot face the situation themselves. The child is apt to model the avoidance. Parent factors that hinder the transfer of control can be addressed in treatments that incorporate parents as co-clients.

Level of parental anxiety is of particular importance and relevance. As reviewed by Ginsburg and Schlossberg (2002), among parents diagnosed with a *Diagnostic and Statistical Manual of Mental Disorders* (4th ed.; American Psychiatric Association, 1994)-based anxiety disorder, 60% of their children met diagnostic criteria for an anxiety disorder and 80% of anxious youth have parents with an anxiety disorder (e.g., Silverman, Cerny, Nelles, & Burke, 1988). Research on social learning (e.g., modeling) and operant conditioning (e.g., reinforcement) has identified parenting factors associated with the maintenance of anxiety in youth (e.g., Muris, Steerneman, Merckelbach, & Meesters, 1996). For example, high anxiety in a child is significantly related to frequent negative feedback and parental restriction (Krohne & Hock, 1991). Likewise, anxious youth regard their parents as less accepting than control youth and less granting of psychological autonomy (e.g., Siqueland, Kendall, & Steinberg, 1996). Rapee (1997) postulated that it is the parents' excessive protection and over-control that conveys to the child that the world is a dangerous place and fosters the child's anxiety.

Barrett et al. (1996) demonstrated that parents play a role in a child's problem-solving strategy and that avoidance may be unwittingly encouraged in families with anxious children. Two ambiguous threat situations were presented to a sample of 152 children with a primary diagnosis of separation anxiety disorder (SAD), overanxious disorder, simple phobia, or social phobia (SP), as well as 26 nonanxious children, and their parents. Children were asked to interpret the situation separately and provide a plan of action. Next, the child and parents were asked to discuss these situations as a family and for the child to provide a final response for dealing with the situation. After family discussions, anxious children's avoidant plans increased (i.e., Family Enhancement of Avoidance Response; Barrett et al., 1996). This study suggests that parents enhance avoidant responses and supports a model of anxiety that highlights that an anxious cognitive style can be reinforced within the family context (see also Chorpita, Albano, & Barlow, 1996). Evidence of parent's unwitting support for avoidance and modeling of anxious behavior supports the argument that the inclusion of parents to child focused CBT will enhance treatment efficacy. The question then becomes (a) how and (b) to what extent should parents be incorporated?

RCTs to date vary in the extent and manner in which parents have been incorporated into CBT for anxious

youth. For example, Kendall (1994) had parents as consultants and collaborators (e.g., parents provided information to make a diagnosis for the child, arranged the treatment schedule, helped with homework, met with the therapist at two separate sessions to discuss treatment plans and maintain cooperation), but parents were not co-clients (parents did not themselves receive therapy.) This article provides (a) a critical review of research on active parent involvement in CBT of anxious youth (i.e., parents as co-clients), (b) a description of the effect sizes emerging from this treatment outcome literature, and (c) a consideration of the areas in need of future research.

## Method

### Literature Search

To identify all such CBT trials for anxious youth, a computer literature search of the PsychINFO database (<http://www.apa.org/psychinfo/>) using key words *anxiety*, *childhood*, *treatment*, and *cognitive-behavioral therapy* was used, and the list was then circulated to three expert anxiety researchers from different countries, each of whom agreed that there were no missing studies that had been published through 2003 (meeting our criteria).

### Inclusion Criteria

Studies included met the following criteria: (a) it was a published trial (in English, 2003 or earlier) reporting the treatment of anxious youth; (b) youth ranged in age from 7 to 18 years; (c) most youth participants met a primary diagnosis for one of three main anxiety disorders—generalized anxiety disorder (GAD), SAD, or SP—as measured by a structured or semistructured *Diagnostic and Statistical Manual of Mental Disorders* based interview; (d) it assessed child-focused CBT plus in-session parent involvement (CBT+P); and (e) at least four parent sessions were included (to differentiate parents as co-clients from the fewer in number and incidental parent-therapist interactions that are part of the child-focused CBT). Studies of the effects of medication (e.g., Birmaher et al., 2003) or any other forms of therapy other than CBT are not included. Likewise, RCTs that targeted primary diagnoses of specific phobias (e.g., Silverman, Kurtines, Ginsburg, Weems, Rabian, et al., 1999) and obsessive-compulsive disorder are not included in this review (e.g., Barrett, Healy-Farrell, & March, 2004).

### Measures

We provide an overview of the outcome measures that were the most consistent across studies: (a) Anxiety Disorders Interview Schedule for Children (ADIS; Silverman & Albano, 1996), (b) Child Behavior Check-

list (CBCL; Achenbach, 1991), and (c) Revised Children's Manifest Anxiety Scale (RCMAS; Reynolds & Richmond, 1978).

The ADIS is a semistructured diagnostic interview based on the *Diagnostic and Statistical Manual of Mental Disorders* (4th ed.; American Psychiatric Association, 1994). It assesses symptomatology, course, etiology, and severity in a separate interview with the child and with parents reaching a final composite diagnosis. Clinical severity ratings are assigned based on both interviews. Clinical severity ratings are determined using an 8-point Likert scale, with a 4 denoting a clinical diagnosis and higher numbers indicating greater severity and more interference. Although the ADIS focuses on childhood anxiety, other diagnoses are assessed, allowing for sensitivity to comorbidity (e.g., attention deficit disorder, depression). Silverman, Saavedra, and Pina (2001) reported interrater reliability of  $r = .93$  for the child interview and  $r = .98$  for the parent interview (Silverman & Nelles, 1988) and retest reliability of  $k = .76$  for the parent interview (Silverman & Eisen, 1992).

The 118-item CBCL is a parent report of their child's behavioral problems and social competencies. The CBCL is scored 0 to 2 depending on the extent to which a particular statement describes the child. Although the CBCL provides a total behavior problem score and several subscale scores, our examination of effect sizes used the mother-reported Internalizing score (e.g., anxiety, depression, and withdrawal; CBCL-Int).

The RCMAS is a 28-item self-report questionnaire assessing general symptoms of anxiety with three factors: Physiological Anxiety, Worry/Oversensitivity, and Concentration (Muris, Merckelbach, Ollendick, King, & Bogie, 2002). Internal consistency is strong, and retest reliability was reported at 0.68 (Reynolds & Richmonds, 1997).

### Data Analysis

Cohen's  $d$  was calculated by subtracting the control group mean from the experimental (CBT or CBT+P) group mean and dividing the result by the pooled standard deviation:  $d = (M_{\text{post},E} - M_{\text{post},C}) / S_{\text{pooled}}$ , where  $M_{\text{post},E}$  and  $M_{\text{post},C}$  are the sample posttreatment means of the treatment and control groups, respectively, and  $S$  is the pooled standard deviation of the control group and treated group at posttreatment. The pooled calculation was calculated using the following equation:

$$S_{\text{pooled}} = \sqrt{\frac{(n_E - 1)(S_E)^2 + (n_C - 1)(S_C)^2}{n_E + n_C - 2}}$$

The pooled standard deviation is favored because it provides a more accurate estimate of population standard deviation in the long run than the standard deviation

tion of the treated or control groups (Rosenthal, 1991). Choosing the control group standard deviation as the standardizing quantity is a reasonable alternative however, because one effect of treatment may be to make variability greater in the treatment group than in the control group. Nevertheless, for comparison purposes, in this review we computed effect size values using both approaches. No meaningful differences were found, and thus the pooled standard deviation was used and reported herein.

Effect sizes were calculated so that a positive effect size indicated a reduction in anxiety symptomatology. Once effect size estimates were established, effect sizes were corrected to yield an unbiased effect size estimate (Hedges & Olkin, 1985) using the following formula:  $d_{\text{unbiased}} = [1 - (3/4(N - 2) - 1)] * d$ , where  $N$  represents the total sample size on which  $d$  is based. When means were not available (e.g., percentage diagnosis free), effect sizes were estimated directly from significance tests ( $t$ ,  $F$ , or chi-square). For all average effect sizes, 95% confidence intervals were derived from their variance and used to determine statistical significance at the 5% level.

### Descriptive Overview of the CBT+P Trials

A total of nine trials that included parents as active participants were identified (Barrett, 1998; Barrett et al., 1996; Cobham, Dadds, & Spence, 1998; Manassis et al., 2002; Mendlowitz et al., 1999; Nauta, Scholing, Emmelkamp, & Minderaa, 2003; Shortt, Barrett, & Fox, 2001; Silverman, Kurtines, Ginsburg, Weems, Lumpkin, et al., 1999; Spence, Donovan, & Brech-

man-Toussaint, 2000). See Table 1 for descriptive information about these studies.

### Treatment Goals of Parent Sessions

The CBT+P condition contained child-focused CBT (e.g., Kendall, 1994; Kendall et al., 1997) but added a parental component in which parents were active participants in therapy sessions (i.e., co-clients). One must not mistakenly assume that there was an inherent uniformity within parent sessions of treatment for childhood anxiety across studies. There were, however, some therapeutic strategies directed toward parents that appeared fairly consistently across CBT+P treatments for childhood anxiety: (a) removing the parental reinforcement of their child's anxious behavior, (b) teaching parents skills to manage their own anxiety and thus be appropriate models, and (c) reducing family conflict. Table 2 outlines the parent-treatment components targeted in each of the nine trials. Treatment components discussed have been categorized according to three underlying goals (reinforcement, modeling, reduction of conflict) with a fourth, unclassified category.

**Removing the reinforcement of the child's anxious behavior.** Contingency management training taught parents how to reward courageous behavior and extinguish avoidant behavior and expressions of fear. Verbal praise, privileges, and tangible rewards were taught to parents. Likewise, planned ignoring was taught to deal with excessive complaining and anxiety. Parents were trained to respond compassionately to their child's first complaint; however, if complaining continued, parents were told to prompt the use of a

**Table 1.** *Summary of Studies*

Author/Year	N <sup>a</sup>	Age <sup>b</sup>	M <sup>c</sup>	Treatments		Number of Weeks
				Active	Control	
Barrett et al. (1996)	79 OAD, SAD, SP	7 to 14	9.7, 10.1	CBT, CBT+P	WL	12
Barrett (1998)	60 OAD, SAD, SP	7 to 14	—	CBT, CBT+P	WL	12
Cobham et al. (1998)	67 GAD, OAD, SAD, SP	7 to 14	9.6	Parent Anx., CBT, CBT+P, Parent Non-Anx., CBT, CBT+P	None	14
Manassis et al. (2002)	78 GAD, PD, SAD, SP	8 to 12	9.98	CBT+P <sup>d</sup> , CBT+P <sup>e</sup>	None	12
Mendlowitz et al. (1999)	62, — <sup>f</sup>	7 to 12	9.8	CBT, CBT+P, P	WL	12
Nauta et al. (2003)	79 GAD, SAD, SP, PD	7 to 18	—	CBT, CBT+P	WL	12
Shortt et al. (2001)	71 GAD, SAD, SP	6 to 10	7.85	CBT+P	WL	10
Silverman et al. (1999b)	56 GAD, OAD, SP	6 to 16	9.96	CBT+P	WL	12
Spence et al. (2000)	50 SP	7 to 14	11.0, 10.5	CBT, CBT+P	WL	12

*Note:* Dashes indicate that data were not reported in original study. Number of weeks = average length of treatment in weeks; CBT = cognitive-behavioral therapy as administered in each study; CBT+P = CBT plus parental component as administered in each study; WL = wait-list; SAD = separation anxiety disorder; GAD = generalized anxiety disorder; OAD = overanxious disorder; SP = specific phobia; SP = Social phobia; AG = agoraphobia; AD = avoidant disorder; PD = panic disorder; P = parent-only group.

<sup>a</sup>N as reported at pretreatment. <sup>b</sup>Age range reported across conditions. <sup>c</sup>Estimated mean age per active treatment condition. <sup>d</sup>Child CBT is provided in group format, plus parent sessions. <sup>e</sup>Child CBT is provided in individual format, plus parent sessions. <sup>f</sup>Specific diagnoses are not reported in the article; however, all participants reportedly meet criteria for a *Diagnostic and Statistical Manual of Mental Disorders* (4th ed.) anxiety disorder.



**Table 2.** *Goals of Parent Sessions for Treating Childhood Anxiety*

Study	Treatment Components of Parent Sessions Divided Into Their Underlying Goals			
	Removing Reinforcement of Child's Anxious Behavior <sup>a</sup>	Modeling Appropriate Behaviors <sup>b</sup>	Reducing Family Conflict <sup>c</sup>	Other <sup>d</sup>
Barrett et al. (1996)	1	7, 8, 9	12, 13	15
Barrett (1998)	1	7, 8, 9	12, 13	15
Cobham et al. (1998)	1	7, 8, 9	—	15, 16
Manassis et al. (2002)	6	—	12	18, 19
Mendlowitz et al. (1999)	6	—	12	18, 19
Nauta et al. (2003)	—	9, 11	12	15, 19, 20
Shortt et al. (2001)	1	7, 9	12, 14	17
Silverman et al. (1999b)	1, 2	—	—	—
Spence et al. (2000)	1, 3, 4, 5	7, 10	—	—

<sup>a</sup>1 = contingency management to train parents in reinforcement strategies, including praise and tangible rewards, for gradually facing feared situations. Teaches parents to ignore and not reinforce socially anxious behavior and to use planned ignoring as a method for dealing with excessive complaining; 2 = train parents to encourage child cognitive self-control procedures; 3 = prompt and reinforce home task completion; 4 = teach parents to encourage their child to participate in social activities outside sessions; 5 = teach parents to encourage increased activity; 6 = use of assignments to assist parents to reinforce coping. <sup>b</sup>7 = parent anxiety management; teach parents to gain awareness of their own anxiety responses; 8 = teach parents how to model coping; 9 = cognitive restructuring to teach parents techniques to challenge unhelpful thoughts; 10 = model social activity; 11 = address parents' feeling about their anxious child and how this affects their behavior; skills are taught to balance protecting and challenging child. <sup>c</sup>12 = parental communication and problem solving; 13 = expert team, empowering parents and children by forming a team based on the joint determination of the content and processes of therapy; 14 = training in partner support. <sup>d</sup>15 = psychoeducation about the etiology of anxiety disorders with an emphasis on the role of family; 16 = relaxation training; 17 = building support network among parents of anxious children; 18 = modeled on a book titled *Keys to Parenting Your Anxious Child* (Manassis, 1996), which is designed to help parents understand anxiety and how to deal more effectively with their anxious child; 19 = content runs parallel to content of child treatment; 20 = address thoughts and feelings of the parents with regard to potential relapse.

coping strategy and stop attending to the child until the anxious behavior abated.

**Modeling appropriate behavior.** Parents were taught strategies to gain awareness of their own anxious responses in stressful situations. Presumably, these techniques helped parents become appropriate models for their anxious children. Therapists coached parents in effective ways to problem solve, restructure the parents' unhelpful thoughts, and engage in proactive responses to anxiety-provoking situations.

**Reducing family conflict.** Therapists taught parents techniques to reduce conflict, enrich family communication, and increase parents' positive commitment as tactics to improve the parent-child relationship. Training in how to reduce conflict and the importance of casual daily discussion and problem-solving techniques were emphasized. Barrett et al. (1996) underscored the importance of enriching the parent-child relationship so that through a collaborative effort, treatment gains would be maintained after therapy.

**Other.** Other parent components included psychoeducation about the etiology of anxiety (emphasis on the role of family), relaxation training for the parents, and building a support network among parents of anxious children.

### Number and Format of Parent Sessions

In addition to the variability in the content of parent treatments, the number of sessions and the format in which parents have been included varied across studies (see Table 3). Each of the studies had 10 to 12 parent sessions except for Cobham et al.'s (1998) study, which had 4, and Nauta et al. (2003), which had 7. The majority of parent treatments were presented in a group format with separate child and parent groups. However, one group was conjoint; that is, parents and children met together with the therapist in a group (Barrett, 1998), and one group was conjoint for a portion of the session (Silverman, Kurtines, Ginsburg, Weems, Lumpkin, et al., 1999). One study (Barrett et al., 1996) provided individual treatment, and the therapist conducted the treatment with the child and parent conjointly. In Spence et al. (2000), parents watched the child's group CBT session through a one-way screen and met subsequently (30 min) to address the salient issues in a parent group.

A parent group may serve to foster a support network for parents who share the common challenge of raising an anxious child. Group processes can also help normalize anxiety experiences and encourage peer learning through discussion of successes and difficulties (Spence et al., 2000). Group formats may be flexible. Shortt et al.'s (2001) program provided parent manuals that permitted adaptable implementation depending on family individuality or specific need. Al-

**Table 3.** *Number of Parent Sessions and Format of Treatment*

Study	No.	Parent		Child		Conjoint
		Group	Individual	Group	Individual	
Barrett et al. (1996)	12		X		X	X
Barrett (1998)	12	X		X		X
Cobham et al. (1998)	4	X		X		
Manassis et al. (2002)	12		X		X	
	12	X		X		
Mendlowitz et al. (1999)	12	X		X		
Nauta et al. (2003)	7		X		X	
Shortt et al. (2001)	10	X		X		
Silverman et al. (1999b)	12	X		X		X <sup>a</sup>
Spence et al. (2000)	12	X		X		X <sup>b</sup>

<sup>a</sup>Parents and children met in groups with a separate therapist for 40 min and a conjoint meeting was conducted for 15 min of each session. <sup>b</sup>Parents and children did not meet with therapist together; however, parents watched child cognitive-behavioral therapy session through a one-way mirror, and this provided the basis for parents' sessions.

though studies using CBT (without parents as co-clients) to treat anxious youth have not found differences in outcome using individual versus group format (e.g. Flannery-Schroeder & Kendall, 2000) the variability in parent session format has made it difficult to compare the trials.

### Parent or Parents as Participants

Another sources of variability across parent sessions centered around who attended treatment sessions (i.e. mother alone, father alone, or both) and the marital status of the parents. If only one parent of a married couple participated, the potential benefits may be limited relative to participation by both parents.

Unfortunately, the nine trials were inconsistent in reporting parent attendance, with most authors not mentioning this information. Some studies mentioned "parents" but did not specify who attended or their marital status (e.g., Spence et al., 2000). Other trials reported no pretreatment differences in marital status across conditions or reported the breakdown of two-parent or single-parent homes but did not report who attended the parent sessions (e.g., Barrett et al., 1996; Nauta et al., 2003). One study reported that treatment sessions were open to both parents but that in most cases only mothers attended (Cobham et al., 1998). Cobham et al. noted that this was a limitation, because parents who needed the parent training may not have received it. In the Mendlowitz et al. (1999) report, one parent was required to attend parent sessions, but both parents were encouraged to attend—the authors did not report who actually attended. Mannasis et al. (2002) reported that all mothers and 57 of 78 fathers attended treatment, and Shortt et al. (2001) reported that 75% of mothers attended the parent group and that, in 25% of the families, both parents attended. It seems reasonable to conclude that variability in attendance characterizes the literature on parents as co-clients.

### Measures of Outcome Across Trials

Challenges to the literature review and to the comparison of effect sizes arise because of the variability in the dependent measures used across the studies. The most commonly used dependent variable across all the studies was diagnostic status as measured by a *Diagnostic and Statistical Manual of Mental Disorders* based structured interview. Every trial employed a clinical rating of diagnostic status at posttreatment except for Mendlowitz et al. (1999) and Manassis et al. (2002). All but one study (Shortt et al., 2001) used the ADIS-Parent and Child version as the diagnostic measure, except for Spence et al. (2000) who used only the Parent version. Studies also differed in which self- and parent-report measures were used. All but two studies used the RCMAS (Barrett, 1998; Nauta et al., 2003), and all but three trials used the CBCL-Int (Mendlowitz et al., 1999; Nauta et al., 2003; Spence et al., 2000).

### Attrition

No systematic differences in attrition were observed between the CBT with and without parental involvement. This observation suggests that both approaches are accepted as reasonable and palatable. Although no differences in attrition were observed, there was marked variability across studies in the extent to which they considered differential attrition and in how they theorized about treatment commitment versus attrition. For example, Cobham et al. (1998) discussed scheduling challenges that arose particularly in the CBT+ P condition, suggesting that coordinating more schedules may make attendance to treatment more difficult. Conversely, in Nauta et al. (2003), all three dropouts were in the individual condition, and although they did not find that adding parent training enhanced treatment gains, the authors suggested that active parent involvement may safeguard against drop out.

## Child Variations

Youth participants varied in age (both within and across studies). For example, participants in the CBT+P condition ranged in age from 7 to 18 years (approximate mean = 9.6 years) and in anxiety diagnoses (e.g., SP, GAD, SAD, simple phobia, and panic disorder). One study focused only on children with a primary diagnosis of SP (Spence et al., 2000). In five studies, CBT+P was compared to both CBT and waitlist (WL) control groups; in two studies CBT+P was compared only to a WL; and in two other studies only active treatments were compared (no untreated control group).

## Outcomes and Relative Effect Sizes

The review of the nine trials is organized based on whether the parent session was provided (a) conjointly with the child session or (b) separately. This organization reflects ways that parents may be co-clients but does not assign any differential importance to format over content of parent sessions. Controlled effect sizes and 95% confidence intervals are reported where possible, and Cohen's (1977) criteria are used to interpret effect sizes such that a value of 0.2 represents a small effect, 0.5 a medium effect, and 0.8 a large effect (see Table 4).

## Trials in Which Parent and Child Sessions Were Conducted Conjointly

In Barrett et al.'s (1996) study, 79 children (ages 7 to 14) who met diagnostic criteria for SAD, overanxious disorder, or SP were randomly assigned to CBT, CBT plus family management (CBT+FAM), or WL. The goals of the FAM component were to (a) train parents to reward courageous behavior and extinguish excessive anxiety in their child; (b) teach parents how to deal with their own emotional challenges, gain awareness of their own anxiety, and model problem-solving and proactive responses to feared situations; and (c) train parents in communication and problem-solving skills. In the CBT condition, the child met with the therapist individually. In the CBT+FAM condition, the child and the parents met with the therapist together; approximately 30 min was spent on CBT and 40 min on the family intervention. At posttreatment, significantly fewer children in the CBT+FAM condition compared to the CBT condition met diagnostic criteria for an anxiety disorder. We calculated controlled effect sizes using the data reported by the authors. Relative to the WL controls, based on diagnostician-rated diagnostic status, CBT produced a medium to large effect size at posttreatment ( $d = 0.65$ ) and CBT+FAM produced a large effect size ( $d = 1.42$ ). Similarly, using self-report data (RCMAS) at posttreatment, the CBT and the

CBT+ FAM condition produced small to medium and large effect sizes, respectively ( $d = .40$ ,  $d = .92$ ), and mother-reported internalizing symptoms using the CBCL-Int yielded effect sizes of  $d = 0.96$  and  $d = 1.19$ , respectively.

Barrett (1998) compared group cognitive-behavioral therapy (GCBT) and GCBT plus family management (GCBT+FAM) to a WL. Sixty children (ages 7 to 14 years) who met diagnostic criteria for SAD, overanxious disorder, or SP were randomized to one of the conditions. Family treatment components were the same as in Barrett et al. (1996) but were administered to parents and children in a conjoint group that met for 2 hr weekly for 12 weeks. In general, the group interventions yielded favorable results similar to the individual intervention (Barrett et al., 1996). However, with diagnostic status as the dependent variable, this study failed to find a significant advantage to an adjunctive parent component at posttreatment. The effect sizes we calculated at posttreatment (relative to control group) based on diagnostic status were  $d = 0.66$  and  $d = 1.10$ , respectively. Using the CBCL-Int, both the GCBT and the GCBT+FAM yielded strikingly large effect sizes relative to WL at posttreatment ( $d = 3.27$ ,  $d = 3.86$ ).

Silverman, Kurtines, Ginsburg, Weems, Lumpkin, et al.'s (1999) study conducted parent and child sessions in a partially conjoint manner in an effort not only to help to ensure generalization of skills to the home but also to adhere more closely to the already efficacious child-focused CBT. This study evaluated GCBT with concurrent parental sessions versus WL. In GCBT, sessions began with separate 40-min child and parent groups. A 15-min conjoint meeting followed. The GCBT sessions focused on the use of parent-child contingency management and contracting procedures to help facilitate child exposure and child cognitive self-control training. Unlike some other trials, this study did not overtly address parents' anxious thoughts. Relative to the control group, we calculated that GCBT yielded the following effect sizes using the ADIS, RCMAS, and CBCL-Int, respectively ( $d = 1.05$ ,  $d = 1.22$ ,  $d = .57$ ).

Spence et al.'s (2000) study differed because it used a more homogeneous sample (i.e., socially phobic children). Fifty children ages 7 to 14 years were randomized to either child-focused CBT, where parents were not involved (PNI), CBT plus parent involvement (CBT+PI) or a WL. CBT included social skills training in combination with graded exposure and cognitive challenges. The therapists instructed the parents in the PNI condition in coping skills and constructive ways to reinforce and encourage social behavior in their children. Although parents were not in the sessions with the child and therapist, they observed child CBT sessions through a one-way window and received subsequent parent sessions that dealt with instructions, dis-

**Table 4.** *Controlled Effect Size Calculations for Diagnostician-, Parent-, and Self-Reported Anxiety at Posttreatment*

	CBT										CBT+P										
	Diagnostician Report (Structured Interview)				Parent Report (CBCL–Int)			Self-Report (RCMAS)			Diagnostician Report (Structured Interview)				Parent Report (CBCL–Int)			Self-Report (RCMAS)			
			95%	Description			Description			Description			95%	Description			Description			95%	Description
	<i>d</i>	<i>r</i> <sup>a</sup>	CI		<i>d</i>	CI		<i>d</i>	CI		<i>d</i>	<i>r</i> <sup>a</sup>	CI		<i>d</i>	CI		<i>d</i>	CI	<i>d</i>	
Barrett et al. (1996)	0.65	0.31*	0.08, 1.28	medium– large	0.96*	0.37, 1.54	large	0.40	–0.16, 0.95	small– medium	1.42	0.58*	0.75, 2.20	large	1.19*	0.57, 1.80	large	0.92*	0.31, 1.53	large	
Barrett (1998)	0.66	0.31*	0.06, 1.42	medium– large	3.27*	2.26, 4.28	large		—		1.10	0.48*	0.30, 2.20	large	3.86*	2.67, 5.05	large		—		
Mendlowitz et al. (1999)			—			—		0.18	–0.34, 0.69	small			—			—		0.18 <sup>c</sup>	–0.35, 0.71	small	
																		0.35 <sup>d</sup>	–0.29, 0.91	small– medium	
Nauta et al. (2003)	0.95	0.43*	0.24, 1.76	large		— <sup>c</sup>			—		1.05	0.47*	0.37, 1.85	large		— <sup>e</sup>			—		
Shortt et al. (2001)			X		X			X			1.28	0.54*	0.72, 1.91	large	5.06*	3.87, 6.24	large	0.98*	0.33, 1.62	large	
Silverman et al. (1999b)			X		X			X			1.05	0.46*	0.37, 1.81	large	1.22*	0.54, 1.90	large	0.57	–0.07, 1.21	medium	
Spence et al. (2000)	1.20	0.52*	0.45, 2.14	large		—		0.45	–0.38, 1.25	small– medium	2.64	0.80*	1.58, 4.13	large		—		0.44	–0.30, 1.18	small– medium	

*Note:* Controlled effect sizes were not calculated for Cobham et al. (1999) and Manassis et al.’s (2002) trial because they did not include controls. CI = confidence intervals; CBT = cognitive behavioral therapy; CBT+P = CBT plus active parent involvement as implemented in each study; RCMAS = Revised Children’s Manifest Anxiety Scale; CBCL–Int = Child Behavior Checklist. Dashes indicate that the study did not use a particular outcome measure. X indicates that the trial did not have such a treatment condition.

<sup>a</sup>*r* is the preferred measure of effect size for measuring diagnostic status. <sup>b</sup>Description refers to Cohen’s (1977) benchmarks for interpreting effect sizes such that a value of 0.2 represents a small effect, 0.5 a medium effect, and 0.8 a large effect. <sup>c</sup>Effect size for the parent-only group—children in this condition did not receive treatment. <sup>d</sup>Effect size for the child plus parent group. <sup>e</sup>Controlled effect sizes could be calculated because the published article did not provide posttreatment data for the wait-list.

\**p* < .05.



cussions, modeling, and role-play of target skills. At posttreatment, there was no statistically significant difference between the PNI and the CBT+PI groups in the percentage of children no longer meeting criteria for an anxiety disorder. Our calculated effect sizes, based on the ADIS at posttreatment relative to the WL, were both large ( $d = 1.20$ ,  $d = 2.64$ , respectively). Based on self-reported anxiety (RCMAS), the effect size for PNI was  $d = .45$  and for CBT+PI was  $d = .44$ .

### **Trials in Which Parent and Child Sessions Were Conducted Separately**

Shortt et al. (2001) evaluated CBT group treatment for anxious children and their parents (FGCBT; called the FRIENDS program). FGCBT maintained the central features of CBT for childhood anxiety but added parent training. Like other parent-involved approaches, FGCBT addressed parent anxiety, restructured unhelpful parent cognition, and explained reinforcement contingencies. The approach included parent support, both within the marriage and in a broader social context, making this parental adjunct somewhat distinctive. Similarly, the focus on children's peer relations (emphasized to both the child and the parent) is distinctive. Seventy-one children (6 to 10 years old) who met diagnostic criteria for SAD, GAD, or SP were randomly assigned to FGCBT or WL. At posttreatment, relative to the WL, effect sizes were calculated and observed to be large on the following measures: ADIS ( $d = 1.28$ ), CBCL-Int ( $d = 5.06$ ), and RCMAS ( $d = .98$ ).

Mendlowitz et al.'s (1999) study examined the effect of group CBT on anxiety, depression, and coping strategies in children ages 7 to 12 and the effect of parental involvement on treatment outcome. Participants were assigned to either (a) parent treatment only, (b) child treatment only, (c) parent and child treatment, or (d) WL. As discussed earlier, this study did not use diagnostic status as a dependent variable and thus does not lend itself to comparison with the other trials. The parent group and child and parent group were modeled after the book *Keys to Parenting Your Anxious Child* (Manassis, 1996) and included tactics for parents to help their child cope adaptively in feared situations. The authors reported that the content of the parent sessions corresponded to the child sessions and aimed at problem solving and teaching parents how to reinforce coping in their children. All treatments were reported to result in a reduction in anxious symptoms compared to WL; however, comparisons between treatments were not reported on this dimension.

Manassis et al. (2002) compared the relative efficacy of individual versus group CBT with parent involvement for children with anxiety disorders. Seventy-eight children ages 8 to 12 meeting criteria for a primary diagnosis of GAD, SAD, SOP, simple phobia, or panic disorder were randomized to either the group

or individual treatment. Unlike most other trials, this study did not include an untreated control group. Both treatment groups received 12 sessions of CBT. Parent sessions were like those in Mendlowitz et al. (1999). Both treatments yielded drops in anxiety from pre- to posttreatment based on parent, child, and diagnostician reports. The authors did not report differential outcome for the individual versus group format of the treatment. They did, however, find evidence to suggest that children with high levels of self-reported social anxiety may respond more favorably to individual treatment. Controlled effect sizes could not be calculated because no control group was used.

More recently, Nauta et al. (2003) evaluated the value of adding a seven-session cognitive parent training program to the 12-week CBT program. In this trial, 79 children ages 7 to 18 were randomized to CBT, CBT plus cognitive parent training (CBT+CPT), or WL. Parent sessions ran simultaneous to child sessions but with a separate therapist. The emphasis on the parents' behavior, thoughts, and feelings regarding their anxious child made Nauta et al.'s parent training program somewhat distinct from other studies that involved parents as co-clients. For example, parents' feelings of concern, guilt, or anger were explored. Earlier sessions provided parents with information about anxiety; later sessions encouraged coping and problem solving in their children. Parents' anxiety was addressed by having them confront their own automatic thoughts. Unlike other trials, parents' thoughts and feelings about potential relapse were addressed. Based on diagnostic status, both the CBT and CBT+CPT produced large effects at posttreatment relative to the WL condition ( $d = .95$ ,  $d = 1.05$ ). Improvements in diagnostician and parent-reported anxiety were observed relative to the WL; however, no significant difference was observed between active and control conditions based on self-reported anxiety. Furthermore, there were no differential effects of treatment condition. That is, adding parent training did not significantly enhance the effects of CBT.

Cobham et al.'s (1998) study included an investigation of parental psychopathology and its effect on child treatment outcome. This trial included 67 children (ages 7 to 14 years) who met criteria for an anxiety disorder. Of these children, 32 had parents who were nonanxious (child-anxiety only), whereas 35 children had one or both parents report high levels of anxiety (child and parental anxiety). Children from both of these groups were randomized to either child-focused CBT or child-focused CBT and parental anxiety management (CBT+PAM). At posttreatment, there was no difference in percentage of diagnosis-free children who received CBT compared to CBT+PAM. However, a significant difference was found between child-anxiety only and child and parental anxiety. At posttreatment, significantly more children with nonanxious

parents were diagnosis free. These results indicated that perhaps anxious parents hindered therapeutic gain.

Cobham et al. (1998) did not use a WL and had fewer parent sessions than the other trials (i.e., four sessions). Of particular interest, Cobham et al. reported a significant interaction: Anxious children with non-anxious parents responded more positively to child-focused CBT than did the children who had at least one anxious parent. PAM added significantly to the effects of CBT only for children who had at least one anxious parent.

## Discussion

The undeniable variability across RCTs suggests that it is premature to draw definitive conclusions. Studies varied with respect to the (a) content of parent sessions, (b) number and format of parent and child sessions, (c) participants in parent sessions, (d) outcome measures, (e) extent to which they considered treatment attrition, and (f) age and principal diagnosis of treated children. Given this variability, efforts must be made to resist the intuitive appeal to conclude that the inclusion of parents as active participants in CBT is preferable to child-focused CBT until the data provide the needed support for such a claim. It is perhaps appropriate that we introduce yet another usage of a FEAR acronym: F = Favored, E = Evidence, A = Appears, R = Real. As luring as it might be to include parents as co-clients for multiple theoretical reasons, the belief cannot be mistaken as evidence.

The preset review calculated and reported controlled effect sizes based on diagnostician report (diagnostic interview), parent report (CBCL-Int), and self-report (RCMAS). Effect sizes at posttreatment for CBT without active parent involvement ranged from small to medium for the self-report data to large for parent-report data. Similarly, treatments that actively included parents had a range of effect sizes from small to large for the self-report data to large effects for the parent and diagnostician reports. Both treatments had a range of effect sizes that varied across studies and across reports. The single largest effect size when parents were included was on the parent-report measure, but it is worth recalling that there could be unwanted (even if unwitting) demand characteristics: Parents who were actively in treatment reported that their children did well in treatment. The variability in effect sizes prompts one to question if there are reasons for any outliers, such as differences in study methodologies, that would help explain an extreme value. For example, an outlying effect size ( $d = 5.06$ ) came from parent report of child behavior when parents were included in treatment—hinting that perhaps parents' participation could have influenced their reports of their children. However, comparable effect sizes ( $d = 3.27, 3.86$ ) were

seen on the same measure (CBCL-Int) when parents (a) were and (b) were not receiving treatment. Although the treatments that included parents may seem to have larger effect sizes, there is not sufficient evidence to conclude with confidence that adding parents as co-clients is uniformly superior. With more trials, calculation of average weighted effect sizes will be more appropriate and revealing.

The limited number of and variability within studies suggests caution. Indeed, the literature indicates the need for additional randomized controlled studies before confident conclusions are reached. Assuming access to long-term follow-up data, questions of the maintenance of gains can be examined. Indeed, questions regarding the beneficial effects of parents as co-clients can be best examined after time has passed and allowed parents to implement what they have learned. To date, only one long-term follow-up has been done, and no differences were reported between children in the CBT treatment as compared to CBT with parent involvement (Barrett, Duffy, Dadds, & Rapee, 2001).

With increased number of RCTs, future reviews can code the studies for the extent of parental involvement. For example, parent involvement could be measured as (a) time spent with the therapist, (b) time spent with the child out of session working on therapy and goals, (c) the extent to which parental anxiety is targeted in session, or (d) a combination of these. Analyses of these coded variables would provide an understanding of the role for parents as co-clients, as well as a better understanding of the optimal in-session involvement to ensure the transfer of control from the therapist to the parent and eventually to the child. The notion of transfer of control is important but may not be specific to either child-focused treatment or child with parents as co-clients treatment. That is, it may be possible to orchestrate a transfer of control from either approach, with parents involved in some but not all of the treatment sessions.

Given the variability in the content of parent sessions, we suggest prudence when using terms such as *family-based treatment*, *parent training*, or *parent sessions*. This review extracted the theoretical underpinnings of the content of the parent sessions of the collection of the studies; however, the underlying reasoning in specific studies was less often clear or apparent. Future research would benefit from clearly stated theoretical explanations for the content of sessions where parents are co-clients and a description of how this content is actually operationalized in therapy. Furthermore, assuming that additional RCTs indicate that the inclusion of parents as co-clients produces systematically larger effect sizes than child-focused CBT, one must nevertheless also consider that the differential effect may be due to the adding of an additional component to treatment. To conclude that the addition of parents into

treatment is more effective, research must include a comparison condition that permits testing the relative merits of other parental adjunctive components (e.g., attention, education, and support).

That said, this review suggests that there are several important dimensions along which treatment outcome may vary as a function of parental involvement. They are the (a) child's age and principal diagnosis and (b) parental psychopathology. Age is a convenient and undemanding proxy for cognitive, social, emotional, and physical development and may moderate treatment outcome. For certain ages of youth it may be beneficial to include parents whereas for others it may not be. In this review, a broad age range was found both within and across studies (ages spanning 7 to 18). Barrett et al. (1996) reported that the inclusion of parents yielded significantly more favorable results (percentage diagnostic free at posttreatment) compared to child-focused CBT for younger (7 to 10) children. For older children (11 to 14), no difference was reported between CBT and CBT+P. Might a parental adjunct to child CBT be preferable for younger children yet not superior to child-focused CBT for older children? Meichenbaum, Fabiano, and Fincham (2002) suggested that adolescents' desire for independence and social acceptance among their peers often contributes to the tendency to conform to peer influences and to resist and even challenge parental directives and adult authorities. This developmental feature heightens one's questioning of the worth of including parents in treatment sessions with adolescents.

There is also the need to consider the child's principal diagnosis. For example, given the central role of parents in SAD, and the fact that SAD occurs in younger anxiety-disordered youth, parents as co-clients may be of special merit for such cases. In contrast, adolescent cases, consistent with the trajectory of normal adolescent development, may prefer to be independent of parents. Indeed, there is reason to hypothesize that a comparison of child-focused and child plus parent focused treatment could be differentially effective based on the age and principal disorder of the child.

Similarly, parent psychopathology (presence of an anxious parent) may be an indicator of the potential benefits of having a parent included as a co-client in treatment. Parental psychopathology, in particular maternal psychopathology (Faubert & Kendall, 1992), may moderate the effects of parent training programs. Ginsburg et al. (1995) suggested that parental anxious symptoms can block the transfer of control, thereby moderating treatment effectiveness. Thus, the inclusion of parents as co-clients, when their involvement includes directly addressing parent anxiety, might enhance outcomes. Cobham et al.'s (1998) trial is the only trial to date that assessed parental psychopathology, and the findings suggested that including parents is differentially more

efficacious than child-focused CBT alone, but only for youth who have parents with high anxiety. Although these are reasoned and seasoned hypotheses, they await empirical evaluation.

What's the bottom line based on this review? Although one should not rush to conclude that excluding parents and including parents do not differ in their outcomes, the extensive variability across trials as well as the data existing to date can be seen as insufficient to warrant widespread acceptance of the notion that one is better than the other. The clearest and safest conclusion is that the additional comparative research is needed and that the acceptance of either approach as superior is not yet justified.

## References

- Achenbach, T. M. (1991). *Integrative Guide for the 1991 CBCL/4-18, YSR and TRF*. Burlington: University of Vermont, Department of Psychiatry.
- Albano, A. M., & Kendall, P. C. (2002). Cognitive behavioral therapy for children and adolescents with anxiety disorders: Clinical research advances. *International Review of Psychiatry, 14*, 129-134.
- American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders* (4th ed.). Washington, DC: Author.
- Barrett, P. M. (1998). Evaluation of cognitive-behavioral group treatments for childhood anxiety disorders. *Journal of Clinical Child Psychology, 27*, 459-468.
- Barrett, P. M. (2000). Treatment of childhood anxiety: developmental aspects. *Clinical Psychology Review, 20*, 479-494.
- Barrett, P. M., Dadds, M. R., & Rapee, R. M. (1996). Family treatment of childhood anxiety: A controlled trial. *Journal of Consulting and Clinical Psychology, 64*, 333-342.
- Barrett, P. M., Duffy, A. L., Dadds, M. R., & Rapee, R. M. (2001). Cognitive-behavioral treatment of anxiety disorders in children: Long-term (6-year) follow-up. *Journal of Consulting and Clinical Psychology, 69*, 135-141.
- Barrett, P. M., Healy-Farrell, L., & March, J. S. (2004). Cognitive-behavioral family treatment of childhood obsessive-compulsive disorder: A controlled trial. *Journal of the American Academy of Child & Adolescent Psychiatry, 43*, 46-62.
- Barrett, P. M., Rapee, R. M., Dadds, M. M., & Ryan, S. M. (1996). Family enhancement of cognitive style in anxious and aggressive children. *Journal of Abnormal Child Psychology, 24*, 187-203.
- Beidel, D. C., Fink, C. M., & Turner, S. M. (1996). Stability in anxious symptomatology in children. *Journal of Abnormal Child Psychology, 24*, 257-269.
- Berman, S. L., Weems, C. F., Silverman, W. K., & Kurtines, W. M. (2000). Predictors of outcome in exposure-based cognitive and behavioral treatments for phobic and anxiety disorders in children. *Behavior Therapy, 31*, 713-731.
- Birmaher, B., Axelson, D., Monk, K., Kalas, C., Clark, D. B., Ehmann, M., et al. (2003). Fluoxetine for the treatment of childhood anxiety disorders. *Journal of the American Academy of Child & Adolescent Psychiatry, 42*, 415-423.
- Chambless, D., & Hollon, S. (1998). Defining empirically supported treatments. *Journal of Consulting and Clinical Psychology, 66*, 5-17.
- Chorpita, B. F., Albano, A. M., & Barlow, D. H. (1996). Cognitive processing in children: Relation to anxiety and family influences. *Journal of Child Clinical Psychology, 25*, 170-176.



- Cobham, V. E., Dadds, M. R., & Spence, S. H. (1998). The role of parental anxiety in the treatment of childhood anxiety. *Journal of Consulting and Clinical Psychology*, 66, 893–905.
- Cohen, J. (1977). *Statistical power analysis for the behavioral sciences*. New York: Academic.
- Crawford, A. M., & Manassis, K. (2001). Familial predictors of treatment outcome in childhood anxiety disorders. *Journal of the American Academy of Child & Adolescent Psychiatry*, 40, 1182–1189.
- Fauber, R. L., & Kendall, P. C. (1992). Children and families: Integrating the focus of interventions. *Journal of Psychotherapy Integration*, 2, 107–123.
- Flannery-Schroeder, E. C., & Kendall, P. C. (2000). Group and individual cognitive-behavioral treatments for youth with anxiety disorders: A randomized clinical trial. *Cognitive Therapy and Research*, 24, 251–278.
- Ginsburg, G. S., & Schlossberg, M. C. (2002). Family-based treatment of childhood anxiety disorders. *International Review of Psychiatry*, 14, 143–154.
- Ginsburg, G. S., Silverman, W. K., & Kurtines, W. M. (1995). Family involvement in treating children with phobic and anxiety disorders: A look ahead. *Clinical Psychology Review*, 15, 457–473.
- Hedges, L. V., & Olkin, I. (1985). *Statistical methods for meta-analysis*. Orlando, FL: Academic.
- Kazdin, A. E. (1997). Parent management training: Evidence, outcomes and issues. *Journal of the American Academy of Child & Adolescent Psychiatry*, 36, 1349–1356.
- Kazdin, A. E., & Weisz, J. (1998). Identifying and developing empirically supported child and adolescent treatments. *Journal of Consulting and Clinical Psychology*, 66, 18–35.
- Kendall, P. C. (1990). *Coping cat workbook*. Ardmore, PA: Workbook.
- Kendall, P. C. (1994). Treating anxiety disorders in children: Results of a randomized clinical trial. *Journal of Consulting and Clinical Psychology*, 62, 100–110.
- Kendall, P. C., Aschenbrand, S. G., & Hudson, J. L. (2003). Child-focused treatment of anxiety. In A. E. Kazdin & J. Weisz (Eds.), *Evidence-based psychotherapies for children and adolescents* (pp. 81–100). New York: Guilford.
- Kendall, P. C., Flannery-Schroeder, E. C., Panicali-Mindel, S. M., Southam-Gerow, M. A., Henin, A., & Warman, M. (1997). Therapy for youths with anxiety disorders: A second randomized clinical trial. *Journal of Consulting and Clinical Psychology*, 65, 366–380.
- Kendall, P. C., MacDonald, J. P., & Treadwell, K. H. (1995). The treatment of anxiety disorders in youth. In A. R. Eisen & C. A. Kearney (Eds.), *Clinical handbook of anxiety disorders in children and adolescents* (pp. 573–597). Northvale, NJ: Jason Aronson.
- Kendall, P. C., Safford, S., Flannery-Schroeder, E. C., & Webb, A. (2004). Child anxiety treatment: Outcomes in adolescence and impact on substance use and depression at 7.4 year follow-up. *Journal of Consulting and Clinical Psychology*, 72, 276–287.
- Krohne, H., & Hock, M. (1991). Relationships between restrictive mother-child interactions and anxiety of the child. *Anxiety Research*, 4, 109–124.
- Manassis, K. (1996). *Keys to parenting your anxious child*. Hauppauge, NY: Barron's.
- Manassis, K., Mendlowitz, S. L., Scapillato, D., Avery, D., Fiksenbaum, L., Freire, M., et al. (2002). Group and individual cognitive-behavioral therapy for childhood anxiety disorders: A randomized trial. *Journal of the American Academy of Child & Adolescent Psychiatry*, 41, 1423–1430.
- Meichenbaum, D. L., Fabiano, G. A., & Fincham, F. (2002). Communication in relationships with adolescents. In F. W. Kaslow & T. P. Patterson (Eds.), *Comprehensive handbook of psychotherapy: Vol. 2. Cognitive-behavioral approaches* (pp. 167–188). New York: Wiley.
- Mendlowitz, S. L., Manassis, K., Bradley, S., Scapillato, D., Mieizitis, S., & Shaw, B. F. (1999). Cognitive-behavioral group treatments in childhood anxiety disorders: The role of parental involvement. *Journal of the American Academy of Child & Adolescent Psychiatry*, 38, 1223–1229.
- Muris, P., Merckelbach, H., Ollendick, T. H., King, N. J., & Bogie, N. (2002). Three traditional and three new childhood anxiety questionnaires: Their reliability and validity in a normal adolescent sample. *Behaviour Research and Therapy*, 40, 753–772.
- Muris, P., Steerneman, P., Merckelbach, H., & Meesters, C. (1996). The role of parental fearfulness and modeling in children's fear. *Behaviour Research and Therapy*, 34, 265–268.
- Nauta, M., Scholing, A., Emmelkamp, P., & Minderaa, R. (2003). Cognitive-behavioral therapy for children with anxiety disorders in a clinical setting: No additional effect of a cognitive parent training. *Journal of the American Academy of Child & Adolescent Psychiatry*, 42, 1270–1278.
- Ollendick, T. H., & King, N. J. (1998). Empirically supported treatments for children with phobic and anxiety disorders: current status. *Journal of Clinical Child Psychology*, 27, 156–167.
- Patterson, G. R., Chamberlain, P., & Reid, J. B. (1982). A comparative evaluation of a parent-training program. *Behavior Therapy*, 13, 638–650.
- Rapee, R. M. (1997). Potential role of childrearing practices in the development of anxiety and depression. *Clinical Psychology Review*, 17, 47–67.
- Reynolds, C. R., & Richmond, B. O. (1998). What I think and feel: A revised measure of children's manifest anxiety. *Journal of Abnormal Child Psychology*, 6, 271–280.
- Rosenthal, R. (1991). Meta-analysis: A review. *Psychosomatic Medicine*, 53, 247–271.
- Shortt, A. L., Barrett, P. M., & Fox, T. L. (2001). Evaluating the FRIENDS program: A cognitive-behavioral group treatment for anxious children and their parents. *Journal of Clinical Child Psychology*, 30, 525–535.
- Silverman, W. K., & Albano, A. M. (1996). *The Anxiety Disorders Interview Schedule for Children (DSM-IV)*. San Antonio, TX: Psychological Corporation.
- Silverman, W. K., & Eisen, A. (1992). Age differences in the reliability of parent and child reports of child anxious symptomatology using a structured interview. *Journal of the American Academy of Child & Adolescent Psychiatry*, 31, 117–124.
- Silverman, W. K., Cerny, J. A., Nelles, W. B., & Burke, A. E. (1988). Behavior problems in children of parents with anxiety disorders. *Journal of the American Academy of Child & Adolescent Psychiatry*, 27, 779–784.
- Silverman, W. K., & Kurtines, W. M. (1999). A pragmatic perspective toward treating children with phobia and anxiety problems. In S. W. Russ & T. H. Ollendick (Eds.), *Handbook of psychotherapies with children and families* (pp. 505–524). New York: Kluwer Academic/Plenum.
- Silverman, W. K., Kurtines, W. M., Ginsburg, G. S., Weems, C. F., Lumpkin, P. W., & Carmichael, D. H. (1999). Treating anxiety disorders in children with group cognitive-behavioral therapy: A randomized clinical trial. *Journal of Consulting and Clinical Psychology*, 67, 995–1003.
- Silverman, W. K., Kurtines, W. M., Ginsburg, G. S., Weems, C. F., Rabian, B., & Serafini, L. T. (1999). Contingency management, self-control, and education support in the treatment of childhood phobic disorders: A randomized clinical trial. *Journal of Consulting and Clinical Psychology*, 67, 675–687.
- Silverman, W. K., Saavedra, L. M., & Pina, A. A. (2001). Test-retest reliability of anxiety symptoms and diagnoses with anxiety disorders interview schedule for DSM-IV: Child and parent versions. *Journal of the American Academy of Child & Adolescent Psychiatry*, 40, 937–944.



