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Empirically tested psychotherapies for youth internalizing and externalizing problems and disorders

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The term *psychotherapy* has come to be applied to a broad array of non-medical interventions designed to alleviate psychologic distress, reduce maladaptive behavior, or increase deficient adaptive behavior through counseling, interaction, a training program, or a predetermined treatment plan. Although the specific term is relatively recent historically, the general idea is ancient. Roots of psychotherapy can be found in the ageless tradition of helping by listening, discussing, and questioning. Among the early Greek philosophers, Socrates developed a method and a thesis that presaged some modern forms of psychotherapy. His approach involved questioning others to provoke them to examine their beliefs, with the goal of bringing them closer to truth. His method reflected his ''midwife thesis,'' the notion that the philosopher's role is to deliver the truth that already is within others, much as the midwife delivers the baby that is within a mother. This idea, of course, is not so different from the view many modern therapists have of their own professional roles. Other approaches that fall under

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the "psychotherapy umbrella" do not involve talk therapies but rather procedures that parents, teachers, and other adults use to limit disobedient or disruptive behavior by boys and girls or to help youngsters focus attention or behave less impulsively. The struggle by adults to shape, manage, and guide youth behavior certainly predates even the ancient Greeks.

It is not entirely clear when psychotherapy became a profession in its own right, but a good case can be made for the turn of the twentieth century when Sigmund Freud launched psychoanalysis. Although much of the psychoanalytic literature focused on adults, two important themes helped extend the model downward to childhood: the notions that early experience can be critical in development and dysfunction and that even children may be appropriate candidates for intervention. These points were illustrated by Freud's [1] treatment of a 5-year-old boy ("Little Hans") who had an unreasonable fear of horses, by consulting with the boy's father. Freud's daughter Anna (1895–1982) later became a prominent child analyst herself, working well into the latter half of the century in the Hampstead Clinic, later named the Anna Freud Centre.

The psychoanalytic model was complemented, over the decades, by a variety of other models and methods, including some that reflected the humanistic tradition and others that were derived from behaviorism. Mary Cover Jones [2], for example, used modeling and gradual exposure to help a 2-year-old boy overcome his fear of a white rabbit. Such work presaged a boom in behavioral psychotherapies for young people, complementing growth in psychodynamic and humanistic treatments. By the late twentieth century, child and adolescent psychotherapy had mushroomed remarkably in the variety of its forms and the extent of its applications. Today, more than 550 named psychotherapies are used with children and adolescents [3], and virtually countless other approaches have been fashioned eclectically by individual practitioners to create their own distinctive approaches to intervention [4].

Research on the impact of youth treatment

Psychotherapy research developed later and more slowly than psychotherapy practice, with some of the earliest work published near the midpoint of the twentieth century. In a particularly influential report, Eysenck [5] reviewed studies of adult psychotherapy and concluded that the evidence did not show it to be effective. A few years later, Levitt [6,7] reviewed studies that included children and adolescents and concluded that outcomes were about the same regardless of whether they had treatment or not. These early reviews were influential, but the studies on which they relied were not rigorous by today's standards. Subsequent research has grown stronger and much more plentiful (see Kazdin [3] and Durlak et al [8]). Many of the studies now in the evidence base qualify as true randomized clinical trials, and their focus has sharpened over the decades, shifting from early studies of poorly specified "treatment" for often vaguely defined groups of youth and problems to tests of well-defined therapies that target specific problems or

disorders in well-defined groups. Thanks to these developments, we are now in a position to profit from a substantial body of reasonably rigorous evidence on youth psychotherapies for which the treatment procedures and treatment targets are identified.

Previous narrative and quantitative reviews

This body of evidence is examined periodically through narrative and quantitative reviews of outcome findings. Narrative reviews (eg, Kazdin [3] and Shirk and Russell [9]) can bring the perspectives of thoughtful experts to bear on what the outcome findings show and what the strengths and limitations of those findings are. Another approach to reviewing outcome research is the quantitative review of treatment effects, an approach called meta-analysis. Meta-analysts apply a common effect size metric to sets of studies to gauge the magnitude and direction of the treatment impact for entire bodies of evidence or for selected subsets. Four published meta-analyses of the youth treatment outcome literature have been particularly broad in their inclusion criteria, encompassing studies of diverse problems and disorders and diverse treatments [10–13]. Averaging across these four meta-analyses, the average treated youth scored better than more than three fourths of control group youths on outcome measures at the end of treatment. Effect sizes are more modest but still positive and substantial when weighting is used to adjust for sample size [13].

Identifying specific psychotherapies supported by evidence

Although narrative reviews and meta-analyses are useful in many ways, they generally are designed to characterize a body of evidence, not to identify specific treatments that are supported by the evidence. For that kind of identification to take place, a different type of review is needed that entails a search for specific psychotherapies that have been supported in clinical trials. We undertook such a review for the present article, with the goal of complementing the overall picture of treatment benefit provided in narrative reviews and meta-analyses with a detailing of the specific interventions that have shown significant effects. We focused on treatments for four broad clusters of problems and disorders that account for a very large proportion of youth mental health referrals.

Focusing on four common problem/disorder clusters

Psychotherapy for children and teens is used to address diverse problems and disorders that generate emotional distress, interfere with daily living, undermine the development of adaptive skills, or threaten the well-being of others. The concerns addressed in therapy constitute an extremely broad and diverse array, encompassing, for example, enuresis, Tourette's syndrome, bulimia, autistic disorder, Asperger's syndrome, fire setting, and trichotillomania. Rather than

attempting to include every treated condition within this review, we chose to focus on four broad clusters of problems that appear to account for a particularly large percentage of youth referrals in the United States (eg, see Jensen and Weisz [14]) and for which a particularly extensive clinical trials literature exists:

Anxiety-related problems and disorders (eg, social phobia, generalized anxiety disorder)
Depression-related problems and disorders (eg, dysthymic disorder, major depressive disorder)
Attentional problems, impulsivity, and attention-deficit/hyperactivity disorder (ADHD)
Conduct-related problems and disorders (eg, oppositional defiant disorder, conduct disorder)

With a focus on these four clusters, we searched the treatment outcome literature in an effort to identify those psychotherapies for which success has been demonstrated in at least one randomized trial.

Methods employed in the review

To provide the most reliable evidence, we sought treatment outcome studies meeting uniform standards that were important for our particular purposes; this made our study collection somewhat different from those used in previous reviews. Here, we describe the search process, the inclusion criteria applied, and the coding system used to characterize the studies.

Literature search procedures

To identify relevant studies, a variety of sources were used. First, we searched standard computerized databases beginning in 1965 and continuing through December 2002. We used PsycInfo, employing 21 psychotherapy-related key terms (eg, *psychother-*, *counseling*, *treatment*) derived from previous youth psychotherapy meta-analyses [12,13], and MEDLINE, by way of PubMed, the principal bibliographic database of the National Library of Medicine. PubMed uses a controlled vocabulary indexing system (MeSH) that provides a consistent way to retrieve citations from publishers who may use different key words for the same concepts. We used *Mental Disorders* with the following search limits: *clinical trial*, *child (3–18 years)*, *published in English*, and *human subjects*. The MeSH descriptor "Mental Disorders" encompasses all related subject terms more specific than this broad heading (eg, anxiety, mood disorders, mental disorders, ADHD). In addition to these database searches, we surveyed published reviews and meta-analyses [10,15–19] of the youth psychotherapy and pharmacotherapy literature to identify studies not found in PsycInfo or MEDLINE. We also followed reference trails of reviewed studies and screened studies suggested by investigators in the field.

We obtained copies of all published youth treatment outcome studies identified by the procedures noted previously. To ensure some level of quality control, we required each study to have been subjected to peer review. In most cases, this meant that the studies were published in peer-reviewed journals; we excluded unpublished manuscripts, book chapters (except in the rare cases where serious peer review was evident), and unpublished dissertations. Obviously, applying this criterion meant that our ultimate collection of studies would not be fully representative of all research that has been performed [20]; but our goal in this project was to characterize the outcome research that met our minimum criteria for methodologic soundness (eg, random assignment), was judged acceptable in professional peer review, and was made available to the field through publication. It should be noted that we included all studies that met inclusion criteria regardless of treatment outcome.

To be included in the review, studies were required to be tests of psychotherapy, defined as any intervention designed to alleviate non-normative psychologic distress, reduce maladaptive behavior, or increase deficient adaptive behavior through counseling, interaction, a training program, or a predetermined treatment plan. We also required that studies (1) include comparison of psychotherapy to a control group (waitlist, no treatment, placebo or other process intended to be inert) or an alternative treatment; (2) involve prospective design and random assignment of subjects to treatment and comparison conditions; (3) use a sample within the 3- to 18-year-old age range; (4) use participants selected for having psychologic problems or maladaptive behavior (within the four problem clusters noted previously); and (5) include a post-treatment assessment of each psychologic problem or maladaptive behavior for which participants were selected and treated. To ensure that the focus of the present article was on comparing psychotherapy to a comparison group, we selected for review only those studies in which participants in the groups being compared were not taking psychotropic medications.

Coding procedures and intercoder reliability

After the studies were identified, we coded several study characteristics. To establish inter-rater reliability for these codes, 30 randomly selected studies were coded by the three project coders (one postdoctoral fellow who served as the master coder and two clinical psychology graduate student coders). Reliability was then computed by comparing each of the coders to the master coder, with kappa (k) statistics computed for categoric codes and Pearson correlation coefficients (r) computed for continuous codes. The codes used for the present project and their intercoder reliabilities were as follows:

Participant/sample/location information

We coded study samples for the size of treatment and control groups (mean $r = 0.99$), age at treatment onset (mean $r = 0.99$); sex (percentage boys: mean $r = 0.99$); ethnicity (percentage Caucasian, African American, Latino-Hispanic,

Asian-Pacific, other; mean $r = 0.93$); and recruitment source (recruited, clinically referred, court-referred; mean $k = 0.71$).

Target problem and diagnosis

The problems/disorders targeted in treatment were classified into four problem types: (1) anxiety, fears, and shyness, (2) depression, (3) impulsivity and attention-deficit/hyperactivity problems, and (4) oppositional/conduct problems (mean $k = 0.91$). We also coded the sample diagnosed (whether participants met diagnostic criteria by way of the prevailing diagnostic system for a disorder falling within the target problem domain; mean $k = 0.79$).

Treatment and control methods used

Each randomly assigned treatment or control group was coded according to treatment or control technique. Coders classified study treatment groups with reference to the primary participant or target of the intervention (eg, child-focused, family-focused), the theoretic orientation (eg, operant-, respondent-, or exposure-based, cognitive-behavioral), and type of control group (eg, waitlist, placebo case management). Mean inter-rater reliability for the classification of treatment and control conditions was $k = 0.75$.

Study set identified in the review process

The first step of our search led to a pool of over 3000 published trials that included at least one youth psychotherapy program. Of these, 298 met our inclusion criteria by (1) focusing on youths in the 3- to 18-year-old age range; (2) addressing problems or disorders within the anxiety, depression, ADHD, or conduct problem clusters; and (3) using a prospective between-group experimental design that involved random assignment of participants to groups. We included studies with at least one psychotherapy group and at least one other control or alternate psychotherapy group; we did not include medication-only studies or studies without a medication-free treatment and control or comparison group (although we allowed sugar pill as a control group). We also excluded studies that employed single-subject and within-group designs in which the same individuals received different intervention/control conditions at different times because the absence of participant random assignment, the possibility that results might be influenced by idiosyncratic characteristics of some participants, and the differences between within-group and between-group effect size made the results of such studies difficult to interpret in the context of a review of clinical trials. It should be noted that our focus on randomized group-design trials means that our findings may differ from those of reviews in which single-subject and within-group designs were included (eg, Pelham et al [21]). Publication dates for the 298 trials that we included spanned the years 1963 to 2002. Of the 298 studies; 94 focused on anxiety or fears; 23 on depression; 46 on ADHD and related problems of attention, hyperactivity, or impulsivity; and 135 on conduct-related disorders

and problems. Across the full study set, 62% of the studies compared the tested treatments to no-treatment or waitlist control groups, 39% to attention/placebo control groups, and 8% to standard case management.

Treatments for internalizing conditions: anxiety, phobias, and fears

The 94 studies in the anxiety domain spanned the years 1967 to 2002 and included 169 separate treatment groups, with mean ages of the samples ranging from 3.8 to 17.6 years. Of the 169 treatment groups tested, 114 (67%) showed statistically significant treatment benefit over a control or alternate treatment group on at least one target problem outcome measure. A breakdown of the kinds of treatments that showed significant benefit is provided in Table 1. The table also lists the specific treatment manuals that have been supported in the experimental comparisons. A quick perusal of the table shows that the replicated treatment successes for anxiety include six categories of intervention focused exclusively or primarily on the individual youth and one broad category that encompassed youth and other family members. In this section, we provide examples of treatment programs within each of these seven categories. Because space limitations require that we be selective regarding which treatments to discuss in the text, we have focused most of the discussion throughout the article on treatments that are relatively widely used, well-tested, or likely to be less familiar to readers and, thus, in need of some description.

Youth-focused modeling

One of the challenges in treating anxiety is that the sequence of *feared object→ anxious thoughts→aversive arousal→ avoidance→ relief* can be self-sustaining. The distress caused by the feared object or situation can be so powerful and the sense of relief that comes from avoiding the object or situation can be so rewarding that alternate forms of behavior simply are not tried, often despite the best efforts of parents and peers. One venerable approach that can help relies on observational learning: exposing the fearful youth to a model who violates the assumptions underlying the fear. The model tries the feared behavior (eg, approaching a dog and patting it on the head), demonstrating that it can be done and showing how, and the model does not experience the negative consequences that the treated youth had feared. When this approach works, the observer emulates the behavior of the model and learns, therefore, that no adverse effects occur. Table 1 shows that multiple treatment studies have shown beneficial effects of modeling interventions in three forms: (1) live modeling—in-person observation of the model's nonfearful behavior; (2) symbolic modeling—observation of video or other representations of nonfearful behavior; (3) participant modeling—pairing the fearful youngster with a model who encourages shared involvement in the feared activity.

Table 1
Randomized controlled trials and treatments showing significant effects on anxiety, fears, and phobias

Type of treatment [reference]	No. of treatments	Mean age (y)	% Boys	Ethnicity	Clinically referred	Sample diagnosed	Treatment manual [reference]	Description
Youth-focused treatments	95							
Modeling	21							
[87]		4	50	—	No	None	—	Modeling (neutral context) for dog phobia
[87]		4	50	—	No	None	—	Modeling (positive context) for dog phobia
[23]		4	33	—	No	None	Unnamed video	Modeling (one model) for dog phobia
[23]		4	33	—	No	None	Unnamed video	Modeling (multiple models) for dog phobia
[88]		4	38	90% Caucasian 10% other	No	None	—	Socialization with a younger child for social withdrawal
[89]		4	50	—	No	None	Unnamed video	Self-speech model for social withdrawal
[90]		4	37	—	No	None	Unnamed video	Modeling for social withdrawal
[91]		11	53	—	No	None	Unnamed video	Participant modeling for dental phobia
[92]		13	—	—	No	None	Unnamed video	Imitation of model for test anxiety
[92]		13	—	—	No	None	Unnamed video	Observation of model during visualization for test anxiety
[92]		13	—	—	No	None	Unnamed video	Observation of model during full time for test anxiety
[93]		6	46	—	No	None	Unnamed video	Mastery model for dental phobia
[94]		6	65	—	No	None	—	In vivo and vicarious exposure for water phobia
[95]		4	50	—	No	None	—	Modeling (with dolls) for separation anxiety
[22]		7	44	—	No	None	—	Passive desensitization for snake phobia
[22]		7	44	—	No	None	—	Active desensitization for snake phobia

[96]		14	0	—	—	None	—	Contact desensitization for snake phobia
[25]		8	36	—	—	None	—	Contact desensitization for snake phobia
[25]		8	36	—	—	None	—	Vicarious desensitization for snake phobia
[97]		6	50	—	No	None	Unnamed video	Public modeling for fear of the dark
[98]		6	0	47% Caucasian 53% African American	No	None	—	Modeling for dental phobia
Relaxation only	2							
[26]		16	—	—	No	None	—	Relaxation for test anxiety
[27]		16	—	—	No	None	*Progressive Relaxation* [99]	Relaxation for test anxiety
Systematic desensitization	8							
[100]		16	100	—	No	None	*Behavior Therapy Techniques* [101]	Desensitization for anxiety
[102]		13	—	—	No	None	—	Desensitization for public speaking anxiety
[27]		16	—	—	No	None	—	Systematic desensitization for test anxiety
[103]		15	—	—	No	None	Unnamed manual	Systematic desensitization for test anxiety
[104]		18	42	—	No	None	—	Endemic images and study skills for test anxiety
[104]		18	42	—	No	None	—	Systematic desensitization and study skills for test anxiety
[105]		6	50	—	—	None	—	In vivo desensitization for fear of water
[106]		12	50	—	No	None	*Anxiety Management Training To Control General Anxiety* [107]	Anxiety management training for test anxiety
Exposure only	11							
[108]		14	36	100% Caucasian	No	All	—	Live graded exposure for spider phobia
[102]		13	—	—	No	None	—	Speech practice for public speaking anxiety
[29]		6	43	—	No	None	—	Exposure for fear of the dark

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Table 1 (*continued*)

Type of treatment [reference]	No. of treatments	Mean age (y)	% Boys	Ethnicity	Clinically referred	Sample diagnosed	Treatment manual [reference]	Description
[94]		6	65	—	No	None	—	Exposure for water phobia
[32]		13	0	100% Caucasian	No	All	—	In vivo exposure for spider phobia
[109]		—	—	—	Yes	All	—	Exposure for specific phobia
[31]		10	—	—	No	All	—	Exposure for specific phobia
[110]		12	39	—	No	All	—	Exposure for specific phobia
[30]		5	50	—	No	None	—	Graduated exposure for fear of the dark
[111]		11	—	—	No	None	—	Exposure for nonverbalizing children
[112]		12	—	—	No	None	—	Exposure for nonverbalizing children
EMDR	2							
[33]		8	31	19% Caucasian 72% Asian 9% biracial	No	All	*Eye Movement Desensitization Reprocessing (U)*	EMDR for PTSD
[32]		13	0	100% Caucasian	No	All	—	EMDR and in vivo exposure for spider phobia
Social skills training	5							
[35]		11	40	70% Caucasian 22% African American 4% Latino 4% biracial	No	All	*Social Effectiveness Therapy for Children (U)*	Social effectiveness therapy for social phobia
[113]		4	71	46% Caucasian 54% African American	No	None	—	Peer treatment for social withdrawal
[36]		4	40	100% African American	No	None	—	Social skills training for social withdrawal (maltreated anxious sample)
[36]		4	42	100% African American	No	None	—	Social skills training for social withdrawal (nonmaltreated anxious sample)

[114]		14	45	—	No	None	—	Assertiveness training for anxiety
Client-centered/ nondirective therapy	2							
[115]		12	0	46% African American 54% Latino	No	None	—	Psychodrama therapy for traumatic stress problems
[37]		14	—	—	No	None	—	Relationship-oriented counseling for social anxiety
Play therapy	3							
[38]		8	53	—	No	None	—	Play therapy for social withdrawal
[95]		4	50	—	No	None	—	Directed play therapy for separation anxiety
[95]		4	50	—	No	None	—	Free thematic play therapy for separation anxiety
RET	4							
[116]		11	50	90% Caucasian 10% other	No	None	Unnamed manual	RET for test anxiety
[37]		14	—	—	No	None	—	RET with imagery for social anxiety
[37]		14	—	—	No	None	—	RET without imagery for social anxiety
[117]		17	46	—	No	None	Unnamed manual	RET with in vivo exposure for test anxiety
CBT	33							
[118]		16	100	61% Caucasian 26% African American 5% Latino 5% Native American 3% other	Jail	All	Cognitive Processing *Therapy for Rape Victims: a Treatment Manual* [119]	CBT for PTSD
[120]		12	55	—	No	None	—	Cognitive behavior modification for test anxiety
[121]		11	53	—	No	All	*Group Coping Koala Workbook* [122]	CBT for overanxious disorder, separation anxiety disorder, and social phobia

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Table 1 (*continued*)

Type of treatment [reference]	No. of treatments	Mean age (y)	% Boys	Ethnicity	Clinically referred	Sample diagnosed	Treatment manual [reference]	Description
[43]		9	57	—	No	All	*Coping Koala Workbook* [123]	CBT for overanxious disorder, separation anxiety disorder, and social phobia
[124]		14	0	—	No	None	—	Cognitive rehearsal for public speaking anxiety
[125]		9	50	90% Caucasian 10% other	No	None	—	Imagery training for test anxiety
[42]		10	17	72% Caucasian 20% African American 6% Latino 2% other	No	Some	*Treating Sexually Abused Children and their Nonoffending Parents: a Cognitive-Behavioral Approach* [126]	CBT for traumatic stress problems and PTSD
[127]		11	51	89% Caucasian 11% other	No	All	*Cognitive-Behavioral Treatment of Anxious Children: a Treatment Manual* [41] *Coping Cat Workbook* [128]	Individual CBT for generalized anxiety disorder, separation anxiety disorder, and social phobia
[127]		11	51	89% Caucasian 11% other	No	All	*Cognitive-Behavioral Treatment of Anxious Children: a Treatment Manual* [41] *Coping Cat Workbook* [128]	Group CBT for generalized anxiety disorder, separation anxiety disorder, and social phobia
[129]		16	17	100% African American	No	All	—	CBT for generalized anxiety disorder, specific phobia, and social phobia
[130]		10	—	—	No	None	—	Cognitive behavior modification for shyness

[40]	6	67	—	No	None	—	Competence self-instructions group for fear of the dark
[40]	6	67	—	No	None	—	Stimulus self-instructions group for fear of the dark
[131]	11	60	76% Caucasian 24% other	No	All	*Cognitive-Behavioral Treatment of Anxious Children: a Treatment Manual* [41] *Coping Cat Workbook* [128]	CBT for avoidant disorder, overanxious disorder, and separation anxiety disorder
[132]	11	62	85% Caucasian 5% African American 2% Latino 2% Asian 5% other	No	All	*Cognitive-Behavioral Treatment of Anxious Children: a Treatment Manual* [41] *Coping Cat* Workbook [128]	CBT for avoidant disorder, overanxious disorder, and separation anxiety disorder
[133]	11	53	—	No	None	Unnamed manual	CBT for school refusal
[134]	11	31	—	No	Some	Unnamed manual	CBT for traumatic stress problems and PTSD
[103]	15	—	—	No	None	Unnamed manual	Cognitive modification for test anxiety
[93]	6	46	—	No	None	Unnamed video	Coping model for dental phobia
[135]	11	50	—	No	None	*A Visit to the Dentist (U)*	Coping strategies for dental phobia
[136]	10	35	90% Caucasian 10% Indonesian	No	All	*Coping Koala Workbook* [123]	Group CBT for generalized anxiety disorder, separation anxiety disorder, and social phobia
[97]	6	50	—	No	None	Unnamed video	Public self-statement for fear of the dark
[137]	15	—	—	No	None	—	Self-control study skills training for test anxiety
[30]	5	50	—	No	None	—	Coping skills and graduated exposure for fear of the dark

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Table 1 (*continued*)

Type of treatment [reference]	No. of treatments	Mean age (y)	% Boys	Ethnicity	Clinically referred	Sample diagnosed	Treatment manual [reference]	Description
[138]		10	52	62% Caucasian 37% Latino	No	All	*Anxiety and Phobic Disorders: a Pragmatic Approach* [139]	Self-control therapy for agoraphobia, specific phobia, and social phobia
[140]		11	62	—	No	All	*Social Skills Training: Enhancing Social Competence with Children and Adolescents* [141]	Social skills training for social phobia
[142]		14	0	—	No	None	—	Attentional skills training for test anxiety
[142]		14	0	—	No	None	—	Cognitive modeling for test anxiety
[143]		14	0	—	No	None	—	Attentional skills training for test anxiety
[144]		8	46	—	No	None	—	Fire safety group for fire phobia
[144]		8	46	—	No	None	—	Fire safety/fear reduction group for fire phobia
[106]		12	56	11% Caucasian 89% African American	No	None	Unnamed manual	Study skills counseling for test anxiety
[106]		12	56	11% Caucasian 89% African American	No	None	Unnamed manual	Modified anxiety management training for test anxiety
Emotive imagery	1							
[145]		8	—	—	No	All	—	Emotive imagery for fear of the dark
Biofeedback	1							
[146]		13	—	—	No	None	—	Biofeedback for anxiety
Self-hypnosis	1							
[147]		14	55	—	No	None	—	Self-hypnosis for test anxiety
Other/eclectic therapy	1							
[148]		13	27	—	No	None	—	Counseling for shyness

Parent-focused treatments	1							
[42]		10	17	72% Caucasian 20% African American 6% Latino 2% other	No	Some	*Treating Sexually Abused Children and their Nonoffending Parents: a Cognitive-Behavioral Approach* [126]	Mother-only CBT for traumatic stress problems and PTSD
Family-focused treatments	4							
[121]		11	53	—	No	All	*Group Family Anxiety Management* [149]	Family anxiety management for overanxious disorder, separation anxiety disorder, and social phobia
[110]		12	39	—	No	All	—	Exposure with child and parent together for specific phobia
[150]		10	—	—	Yes	None	—	Standard treatment with desensitization for phobia
[150]		10	—	—	Yes	None	—	Standard treatment with desensitization and modeling for phobia
Multitargeted/ multisystem treatments	14							
Youth and parent sessions	8							
[151]		9	100	100% Caucasian	No	None	—	Child play group with reinforcement for social-approach behaviors, and mother's guidance group for social withdrawal and introversion

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Table 1 (*continued*)

Type of treatment [reference]	No. of treatments	Mean age (y)	% Boys	Ethnicity	Clinically referred	Sample diagnosed	Treatment manual [reference]	Description
[151]		9	100	100% Caucasian	No	None	—	Child play group and mother's guidance group for social withdrawal and introversion
[152]		10	51	—	No	All	*Coping Koala Workbook* [123] *Parent Anxiety Management (U)*	CBT with child and parent for agoraphobia, generalized anxiety disorder, separation anxiety disorder, specific phobia, and social phobia
[153]		9	55	—	No	None	—	Behavioral therapy with child and parent for night-time fears
[134]		11	31	—	No	Some	Unnamed manual	CBT with child and parent for traumatic stress problems and PTSD
[154]		10	54	85% Caucasian 15% African or Asian	Yes	All	*Coping Bear (U) Keys to Parenting Your Anxious Child* [155]	Individual CBT with child and parent for generalized anxiety disorder, panic disorder, separation anxiety disorder, specific phobia, and social phobia
[156]		10	61	46% Caucasian 46% Latino 7% other	No	All	*Anxiety and Phobic Disorders: a Pragmatic Approach* [139]	Child self-control training and parent contingency management for generalized anxiety disorder, overanxious disorder, and social phobia
[140]		11	62	—	No	All	*Social Skills Training: Enhancing Social Competence With Children and Adolescents* [141]	Child social skills training with parent involvement for social phobia

Youth and family sessions	3							
[43]		9	57	—	No	All	*Coping Koala Workbook* [123] *Family Anxiety Management (U)*	CBT with child and family for overanxious disorder, separation anxiety disorder, and social phobia
[157]		10	55	96% Caucasian 4% African American	No	None	—	Child play therapy with parent involvement for children with specific fears
[157]		10	55	96% Caucasian 4% African American	No	None	—	Child systematic desensitization with parent involvement for children with specific fears
Youth, parent, and family sessions	3							
[42]		10	17	72% Caucasian 20% African American 6% Latino 2% other	No	Some	*Treating Sexually Abused Children And/Their Nonoffending Parents: a Cognitive-Behavioral Approach* [126]	CBT with child, parent, and family for traumatic stress problems and PTSD
[158]		8	41	7% Caucasian 1% Asian 92% Australian	No	All	*FRIENDS Program For Children* [159–161]	CBT with child, parent, and family for generalized anxiety disorder, separation anxiety disorder, and social phobia
[138]		10	52	62% Caucasian 37% Latino 2% other	No	All	*Anxiety and Phobic Disorders: a Pragmatic Approach* [139]	Exposure-based contingency management with child, parent, and family for agoraphobia, specific phobia, and social phobia

Abbreviations: CBT, cognitive behavior therapy; EMDR, eye movement desensitization reprocessing; PTSD, post-traumatic stress disorder; RET, rational-emotive therapy; *U*, unpublished manual; —, not reported.

Live modeling

In live modeling, the anxious youngster observes a peer, the therapist, or some other model engaging in the feared behavior in real time. In some versions of this approach, sometimes called mastery modeling, the model is relatively fearless from beginning to end; in other variants, sometimes called coping modeling, the model seems fearful or reluctant at the beginning but gradually increases the intensity of exposure across successive trials. Across the exposures, the model experiences no adverse consequences and often appears to enjoy the experience. After the youth has observed the model's behavior directly, the therapist invites the youth to do what the model did. A frequent practice is to start at low intensity (eg, sitting at some distance from the feared object) and add increments (eg, moving closer, touching the object, picking it up) gradually. Sometimes the therapist praises or rewards the child for success; sometimes praise and reward are not used.

As one example, Murphy and Bootzin [22] used two different approaches to live modeling to help children overcome their fear of nonpoisonous snakes. The children, all in Grades 1 to 3, were seen individually. They sat in a chair 15 feet from an adult who was holding a 28-inch boa constrictor. The adult interacted with the snake for 2 minutes while relating facts about the boa, noting that it would not be good to pick up an unfamiliar snake because it might be harmful. After the 2 minutes of observing, the child was asked to try a series of steps—standing near the snake, touching it briefly, holding it with both hands for 10 seconds, and eventually sitting with the snake in the child's lap. Children in Murphy and Bootzin's active modeling condition were asked to perform each step after the experimenter modeled it. In the passive modeling condition, children remained stationary while the experimenter approached them with the snake and manipulated the snake's body so that it touched the child. Each live modeling session, in both conditions, lasted 8 minutes or less, and both produced more improvement (ie, snake contact) than a control condition in which children received only assessments.

Symbolic modeling

A particularly efficient approach is symbolic modeling in which video (or some other media product) is used to present a model to anxious youngsters. This approach has at least two significant advantages. First, after a video has been made and found effective, it can be reused repeatedly with no worry that the model's behavior may change in some unwanted way. Second, the availability of an effective video that has been shown to work greatly reduces the complexity of the therapist's job. The procedures for symbolic modeling can be similar to those of live modeling, except that the modeling is "virtual." Multiple brief videos can be shown across several days that depict increasingly close approaches to the feared object or situation. To enhance generalization, videos sometimes are designed to include several different child models and several different exemplars of the situations or objects that children fear (eg, dogs of different species and size). When a particular skill is involved (eg, swimming), videos also can be produced to illustrate skill development over time; video models even may make

mildly fearful comments at the beginning à la coping modeling (eg, "I'm a little afraid, but I will try this anyway"), which may enhance a fearful youngster's ability to identify with the models.

Symbolic modeling is illustrated by Bandura and Menlove's [23] video approach to treating children's fear of dogs. The study focused on 3- to 5-year-old preschoolers. Treated children watched eight different 3-minute videos (two per day on four alternate days). Each of the eight screenings was attended by 3 to 4 children. In a single-model condition, children saw a single 5-year-old child modeling progressively more courageous interactions with a single cocker spaniel. In the multiple-model condition, the children watched various boys and girls modeling progressively more courageous interactions with increasingly large and fearsome dogs. Both symbolic modeling groups showed gains in fearless behavior with dogs, markedly more than a control group that watched unrelated videos (eg, *Marineland*). The multiple-model video had stronger and more lasting effects than the single-model video, suggesting that the potential artificiality of a video approach may be partly offset by the use of varied models and targets.

Participant modeling

In a third modeling approach—participant modeling—the basic idea is to use the model in an interactive way, inducing the fearful youth to perform the feared activities in concert with the model. The approach appears to be particularly potent. In Ollendick and King's [24] careful review of anxiety treatments, this was the only modeling method identified as "well established." Like the other forms of modeling, the participant approach often involves graduated exposure, beginning with low levels that are only mildly worrisome and advancing to more proximal contact with the feared object or situation. In participant modeling, the therapist often serves as the child's model and the child's partner, performing the feared activity and encouraging the child to join in while providing a reassuring presence. The potency of this approach may reflect the fact that it combines observational learning with the added security of a confident partner plus active encouragement to try the exposure.

Participant modeling was used by Ritter [25] with 5- to 11-year-old children who were afraid of nonpoisonous snakes. Ritter's participant modeling conditions involved two 35-minute treatment sessions spaced a week apart. Groups of 7 to 8 children sat in a circle around a cage. They observed an adult take a gopher snake named Posie out of the cage and pet her. The adult eventually selected a child who looked interested in the activity and encouraged the child to stroke Posie, first with a gloved hand and then with a bare hand. Gradually, the adult moved around the circle, encouraging each child to pet and stroke Posie. For hesitant children, the adult began by placing the child's hand on the adult's hand, and then petting Posie. Over time, the children tried increasingly direct and close interactions with Posie, including taking the snake out of the cage alone with bare hands and sitting in a chair with arms hanging loosely while Posie remained in the child's lap for 30 seconds. After the second session, 80% of the participant observation children were able to complete all steps of an extensive snake

interaction performance test; none of the children in a no-treatment control group could do this. A ''vicarious'' modeling group—children who had only watched others play with Posie—fell in between, with 53% passing all the steps of the test. The findings are consistent with other evidence (see Ollendick and King [24]), showing that modeling works and that participant modeling works better than more passive forms.

Youth-focused relaxation training

Another cluster of interventions for anxiety involves ways of reducing anxiety or anxious avoidance without relying on models. One approach—relaxation training—typically involves progressive muscle relaxation exercises (asking youths to alternately tense and relax various muscle groups) often combined with slow, deep breathing and guided imagery in which therapists describe calming scenes. In an early application, Laxer et al [26] and Laxer and Walker [27] used relaxation training to help test-anxious secondary school students reduce their anxiety. In the initial phase of training, students lying prone on floor mats learned to focus attention on the strain when muscles were tense and on the feeling of relaxation as muscle tension was eased. After these skills were learned, the students focused only on the relaxation process, omitting the muscle tensing.

Youth-focused systematic desensitization

Relaxation training also has been used as one element of systematic desensitization [28], a sequential procedure in which images of the feared object or situation are presented while the youth is in a relaxed state. The procedure usually involves three steps. First, a fear hierarchy is created, with feared stimuli ordered from least to most frightening; for test anxiety, hearing the teacher announce a test for next week might be low on the hierarchy, and starting the actual test and finding unexpected questions might be high. Second, the fearful youngster is taught to relax, often through progressive tensing and releasing of various muscle groups, as in the Jacobson procedure described in the previous paragraph. Third, items from the fear hierarchy are presented, usually by way of imagery guided by a counselor or therapist; the process moves from low to high in the fear hierarchy while the child maintains a relaxed state. If the youngster is able to remain relaxed even during those items highest in the fear hierarchy and across repeated exposures, then a key goal has been attained because a person cannot be both relaxed and fearful at the same time. This three-step procedure was used by Laxer and colleagues [26] in the study noted in the previous paragraph. For their systematic desensitization condition, these investigators used a 22-item fear hierarchy related to testing in school. To illustrate, cramming for an examination the night before was low in the hierarchy and telling parents about a failing grade was high. After relaxation training, students went through imaginal exposure, with a counselor describing items from the fear hierarchy; at any time when students felt uncomfortably anxious, they raised a forefinger and the counselor reverted to relaxation instructions. Through this therapeutic back and forth,

students worked their way through the hierarchy and anxiety was reduced in the process.

Youth-focused reinforced exposure

The evidence shown in Table 1 points not only to beneficial effects of modeling, relaxation training, and systematic desensitization but also to an approach that is arguably a more direct way of addressing fears and anxiety. This approach—reinforced exposure—entails graduated steps of exposure to the feared object or situation, with the youngster being rewarded for accomplishing each step. Given that the procedure does not rely on relaxation as a preliminary step or modeled behavior as a guide, how does this approach work? An influential view is that reinforced exposure is simply one form of contingency management in which behavior is altered by changing its consequences [24]. A challenge for the therapist is creating graduated steps of exposure that will be appropriately challenging but not so overwhelming that the youth refuses outright. For some fears of situations (eg, darkness), the graduating procedure may involve increments in time (eg, the amount of time the child remains in a darkened room [29]) or degree (eg, degree of darkness tolerated, as determined by a rheostat [30]). For other fears, the gradations may involve a series of increasingly lifelike and direct exposures. As one example, Obler and Terwilliger [31] treated 7- to 12-year-olds who were afraid of riding public transportation. These investigators used exposures ranging from a low of looking at bus photos to a high of standing in a bus, talking to the driver, and putting coins in the fare box. Muris et al [32] treated spider fears in 8- to 17-year-olds by exposing them to a variety of spiders and progressing from looking at the spiders from a distance to letting the spiders walk on the youngsters' arms. In the various procedures employed, rewards follow successful exposures, but the rewards may range from praise to concrete incentives (such as edible treats) to stars on a chart documenting the steps of successful exposure.

Youth-focused eye movement desensitization and reprocessing

A controversial spin-off of exposure treatments is eye movement desensitization and reprocessing (EMDR). This approach involves repeated imaginal experiencing of traumatic events, with associated negative cognitions and emotions, until the events become less anxiety arousing. As one example, Muris et al [32] asked 8- to 17-year-olds who were afraid of spiders to focus attention on their most recent aversive experience with spiders and an imagined future confrontation with spiders. For each of these experiences, in turn, each young person was asked to bring to mind his or her most disturbing mental image of the event, a potent negative cognition about the event, and a physical anxiety response. After the image, the cognition, and the anxiety response had been activated, the therapist moved his or her fingers back and forth horizontally in front of the young person's eyes 24 times, asking the youth to follow the finger

movements visually. Then the youth was asked to blank out the image, take a deep breath, and describe his or her image, feelings, or thoughts. As long as these descriptions had a negative tone, the therapist re-initiated the previous steps, including eye movements. This process continued until the youth described images in a neutral way and reported the lowest possible level of subjective distress associated with the images. At this point, the same image was introduced together with a positive cognition, eye movements resumed, and this process continued until the highest possible subjective rating was achieved. Interpretation of the Muris et al [32] findings was complicated somewhat by the fact that the EMDR procedure was followed (as in the other experimental groups) by a 1.5-hour exposure procedure, which ordinarily is not a part of standard EMDR. By contrast, Chemtob et al [33] used a more standard EMDR procedure, without separate exposures, in successful treatment of 6- to 12-year-olds on Kuai who were diagnosed with post-traumatic stress disorder more than 3 years after their exposure to hurricane Iniki.

The complicated procedures used in EMDR are regarded in some scientific circles as something akin to hocus pocus. In one recent article, EMDR was grouped with questionable intervention programs such as dolphin-assisted therapy, past life therapy, and alien abduction therapy [34]. As Table 1 indicates, however, the two studies noted in the previous paragraph have found EMDR to be associated with measurable benefit in comparison to control or alternate treatment conditions (but see the qualifier above in relation to the Muris et al [32] study). What the studies do not address—and the focus of much of the con troversy—is the extent to which the complex procedures, including finger-directed eye movements, are necessary additions that add to the benefits of repeated imaginal exposure alone.

Youth-focused social skills training

Some treatment developers have used training in social skills as a way to address anxiety and withdrawal in social situations. Beidel et al [35], for example, used a program they called Social Effectiveness Therapy for Children to treat 8- to 12-year-olds who had been diagnosed with social phobia. The program began with a psychoeducation session that provided information on social phobia. In later sessions, children learned and practiced specific skills needed for effective social interaction, such as greetings and introductions, starting conversations, joining a group activity, positive assertion, and negative assertion. In following a one-skill-per-week schedule, therapists taught children each skill through instruction, modeling, behavioral rehearsal, corrective feedback, and homework assignments. In addition, to promote generalization, the anxious children joined groups of nonanxious children for unstructured interactions, during which they could practice their newly learned skills. In another approach—resilient peer treatment—Fantuzzo et al [36] paired socially withdrawn preschoolers with socially resilient peers (‘‘play buddies’’), set up designated play corners for these pairs to use during free time, and trained parent volunteers to facilitate healthy play by these pairs.

Youth-focused client-centered therapy and play therapy

Table 1 notes two studies that employed client-centered therapy, broadly construed. In one approach, Warren et al [37] organized a series of seven 50-minute group sessions for junior high school students concerned about interpersonal anxiety. The group activities and discussion topics were designed to encourage youths to communicate their feelings openly and to accept their own feelings and those of others in the group. Group leaders tried to build trust, self-awareness, self-disclosure, and listening skills in the group members. In another approach, Guerney and Flumen [38] taught teachers the principles and procedures of client-centered play therapy, and the teachers then applied these principles during 14 supervised play sessions with their most socially withdrawn children.

Youth-focused rational-emotive therapy

In contrast to client-centered therapy, which emphasizes understanding and acceptance of the client's beliefs and feelings, rational-emotive therapy emphasizes a search for irrational beliefs and an effort to alter them. The underlying theory holds that maladaptive emotions are mediated by irrational beliefs and the self-verbalizations through which those beliefs are expressed. Rational-emotive therapy is, in part, an effort to ferret out the irrational beliefs and modify them through discussion, logical reasoning, and behavioral assignments. As an example, Warren et al [37] used instruction in rational-emotive therapy principles and group discussions to identify and challenge the following irrational beliefs that were considered strongly linked to interpersonal anxiety: (1) I must have the love and approval of all significant others in my life; (2) I must be thoroughly competent, adequate, and achieving to be worthwhile; (3) when I am treated unfairly or rejected, I must view things as awful and terrible; and (4) if something ems dangerous to me, then I must be anxious and preoccupied by it. Participants were taught to recognize and dispute such beliefs when they surfaced; homework often consisted, in part, of writing out disputations of their irrational beliefs.

Youth-focused cognitive behavior therapy

As Table 1 indicates, cognitive behavior therapy (CBT) [39] has been used extensively to address youth anxiety. As the name implies, CBT entails efforts to identify and alter cognitions that contribute to the anxiety and to identify and alter maladaptive behavior (such as avoidance of feared situations) that may serve to sustain the condition. Some forms of CBT have been used in treatment focused on individual youths; other forms have been used in treatment focused on youths and their family members in various combinations (see later text). Applications of CBT at the individual-youth level have ranged from procedurally simple approaches using self-talk (typically addressing specific fears) to more complex multisession programs typically used to address multisymptom anxiety disorders.

Self-talk intervention

A common beginning for the simpler, self-talk interventions is identifying anxious cognitions. The therapist and youth work together to figure out what thoughts the youngster has that make the feared situation so frightening (eg, "there are monsters in the dark"), and then work on replacing those thoughts with positive coping thoughts. In other versions of self-talk treatment, identification of current cognitions is skipped in favor of simply developing coping thoughts. In both versions, a critical task for the therapist is to identify "special words" that will inspire the child to venture into feared territory. The therapist helps the child memorize the special words, teaches the child to repeat them when feeling anxious, records the child's degree of voluntary exposure to the feared situation before and after the use of self-talk, and provides feedback, praise, and reward for increased exposure.

In an early example, Kanfer et al [40] used two different types of self-talk to help 5- and 6-year-olds who were afraid to be alone in the dark. Some children were given competence self-talk, stressing their own ability to cope: "I am a brave boy (girl). I can take care of myself in the dark." Other children were given stimulus-focused self-talk, intended to reduce the fear-provoking potential of darkness. They were told, "The dark is the best place to go to sleep and have good dreams. The dark is a special place where you can play games. It is more fun to watch a movie or the TV in the dark because you can see the picture better," and their self-talk stressed this theme: "The dark is a fun place to be. There are many good things in the dark." Both groups of children were told to repeat their self-talk when they were in the dark. Both kinds of self-talk led to greater tolerance of darkness than a neutral condition (one in which children repeated "Mary had a little lamb; its fleece was white as snow"), but the benefits were somewhat better for self-talk that emphasized personal competence.

Multicomponent cognitive behavior therapy

For anxiety disorders that are more complex than single phobias, more complex packages of CBT procedures may be needed. One example is the Coping Cat program [41], designed for children diagnosed with generalized anxiety disorder, separation anxiety disorder, or social phobia. The cognitive and behavioral skills conveyed in Coping Cat [41] are summarized in the "F-E-A-R steps" that children learn during the program. *Feeling frightened?* refers to the skill of recognizing one's distinctive bodily cues that signal the presence of anxiety (eg, a pounding heart, tightness in the throat, or a flushed face). To become conscious of one's anxiety signals is to recognize when to implement anxiety coping skills. As the child's pattern of anxiety cues and bodily arousal is identified, relaxation training is introduced, sometimes using procedures like those described previously. *Expecting bad things to happen?* refers to cognitions that increase the anxiety potential of situations; for example, performance anxiety in socially anxious youths may be heightened by such thoughts as "If I screw up, everyone will think I'm an idiot." One aim is to turn the child into an effective critic of fearful thinking, one who poses and answers questions such as, "Is my

fearful thought realistic?'' Another aim is to inculcate skills in turning anxious self-talk into coping self-talk, one theme of the third step in the acronym: *attitudes and actions that can help*. The *attitudes* that can help are the realistic thoughts that replace unrealistically anxious thoughts (eg, ''some kids might think I'm an idiot, but most kids will know that everyone screws up sometimes—and besides, maybe I won't screw up, maybe I'll do just fine''). The basic idea is to reconceptualize the situation as less risky and, thus, less frightening. After such cognitive reframing is accomplished and fear-provoking ''attitudes'' are altered, the child's next task is to find ways of reducing the stressfulness of anxiety-provoking situations by altering the situations; that is, by taking *actions* that can help (eg, Nervous about meeting a new girl? Afraid you won't know what to say? What if you learn a bit about her before you meet, so you'll know what she is interested in and then you'll know what to talk about?). In this way, the child learns that stressful situations can be made less stressful through advance planning and by changing specific aspects that seem most threatening. Finally, in the *results and reward* step, children learn to evaluate their own efforts to change and reward themselves appropriately. Rewards may be as simple as writing about the good experience in a diary or spending time doing a favorite activity.

Individually administered CBT in other forms also has been used to help youngsters deal with anxiety linked to severe trauma. Deblinger et al [42], for example, used CBT to treat post-traumatic stress disorder and other behavioral and emotional problems in sexually abused children aged 7 to 13 years. The intervention methods used included relaxation skills, emotional expression skills, and cognitive coping skills—all applied in the context of exposure to abuse-related memories and stimuli that took place in the form of discussions with the therapist. Key to the treatment program was individualizing ways of making the exposure tolerable for children, through means such as reading, doll play, drawing, writing, and singing. Children also were taught coping skills that were directly relevant to their previous experiences, such as maintaining body safety and identifying and responding effectively to sexual advances. As the Deblinger et al [42] work illustrates, individual CBT appears to be a versatile generic approach that can take diverse, specific forms to address serious concerns of children and adolescents.

Parent/family-focused cognitive behavior therapy

CBT has been used not only with children but also with their parents and their families as a whole. In the Deblinger et al [42] report just described, an alternate treatment approach involved training the nonoffending mothers of sexually abused children to play the role that therapists had played in the individual child version of the treatment. One part of the intervention targeted the mothers' own damaging cognitions; for example, the mothers' beliefs that they were to blame for not having detected what was happening to their children were countered with information on the high prevalence of sexual abuse and the highly secretive nature of sexually abusive relationships. Mothers were taught effective ways of

(1) encouraging healthy exposure to abuse-related memories and stimuli through discussion in which the mothers modeled effective coping and (2) avoiding uncontrollable anger or anxiety. Parents also learned behavior management skills to use in helping their children substitute appropriate and adaptive behavior for inappropriate and maladaptive behavior that they might have learned during the course of the abuse.

An example of a family-focused version of CBT can be found in the work of Barrett et al [43] who used a family anxiety management program to address overanxious disorder, separation anxiety disorder, and social phobia in 7- to 14-year-olds. In most of the family anxiety management program's 12 sessions, the parents (or single parent) and child meet together with the therapist and sometimes with other families, but the last few sessions are "partner support" meetings to help the two parents work in synchrony, solve problems together, and support each other's efforts. Most sessions involve a mixture of didactics, discussion, and interactive activities, with homework assignments each week. Exposure tasks begin early in the treatment, with parents enlisted as role models of good fear management and as agents of reinforcement who establish reward contingencies for their child's efforts at exposure. In addition, parents learn how to extinguish repeated displays of anxiety by using "planned ignoring." An overall aim of the family anxiety management program is essentially to make parents part of the treatment team, which means educating parents about the treatment their child is receiving, enlisting their support for the treatment, and providing the skills parents need to implement intervention components with their child at home.

Treatments for internalizing conditions: depressive symptoms and disorders

The 23 studies in the depression domain spanned the years 1986 to 2002 and included 35 separate treatment groups, with mean ages of the samples ranging from a low of 9.2 years to a high of 16.5 years. Of the 35 treatment groups tested, 26 (74%) showed statistically significant treatment benefit relative to a control or alternate treatment group on at least one target problem outcome measure. A list of the kinds of treatments that showed significant benefit is provided in Table 2. Most of these treatments employed individual or group therapy with depressed youths only, two employed family-focused intervention, and two directed treatment to the youths and one or more others in their family or social system (eg, parents, teachers). Given the close association between youth depression and anxiety, it is not surprising to find that some of the procedures used to good effect with anxiety reappear in the list for depression.

Youth-focused cognitive behavior therapy

The most extensively tested and supported approach to youth depression treatment is youth-focused CBT, with 13 supportive tests published. The mean

age of the CBT clients treated in these tests ranged from 10 to 16 years across the trials. Of the CBT manuals used, the one with the most ample empiric support is *Coping with Depression-Adolescent Version* (CWD-A) [44], which was supported in three tests with adolescents and two with adolescents and parents. We will illustrate CBT for youth depression by focusing on the CWD-A program.

In keeping with its cognitive behavioral pedigree, the CWD-A program treats depression by addressing cognitive, behavioral, and affective skill deficits. To address these deficits, CWD-A therapists teach specific coping skills, most often in a group environment. As one step in the process, youngsters learn how their emotions are related to their thoughts and actions, and they practice monitoring their own moods and tracking the mood-thought-action connections. Participants also learn social skills such as how to start a conversation, how to listen actively, and how to show understanding of others' thoughts and feelings. In addition, participants learn to (1) identify activities they find mood elevating and then increase their frequency; (2) develop and carry out a personal plan for change by setting goals and working toward them; (3) identify unrealistic negative thoughts and practice replacing those thoughts with realistic, positive counterthoughts; (4) deal with stress by using relaxation techniques; (5) interrupt negative thoughts to prevent themselves from getting stuck in unproductive rumination; and (6) use problem-solving and negotiation skills to deal with interpersonal conflict. The sequence of topics is arranged so that subjects covered in the early sessions form the basis for more challenging material later (eg, constructive thinking, negotiation, and problem solving).

Several steps have been taken to make the program user-friendly to teens. For example, homework, which is common to most CBT programs, is kept to just 5 or 10 minutes and involves no reading assignments; instead, it stresses generalizing the skills learned in the course by practicing them in outside situations. Humorous cartoons (eg, *Garfield*, *Bloom County*, *Cathy*) are used to illustrate various maladaptive thoughts and behaviors. The course is designed to have a "classroom" rather than a "clinical" feel to support the goal of providing a nonstigmatizing learning experience. Consistent with this notion, CWD-A is called a course, participants are called students, and therapists are called group leaders. Participating teens use a student workbook containing the material covered in the course, and teaching methods blend lecture, discussion, and role play to keep participants' attention engaged. A protocol for booster sessions and a parallel component for parents also have been developed (see later discussion).

Youth-focused interpersonal therapy

Two published trials have found beneficial effects of interpersonal therapy for adolescents. The interpersonal therapy approach used by Mufson et al [45], for example, is designed to reduce depressive symptoms by focusing on common adolescent developmental issues, especially issues bearing on social relationships. Such issues often include separation from parents, authority in relationships, development of dyadic relationships with peers, grief over the death of

Table 2
Randomized controlled trials and treatments showing significant effects on depression

Type of treatment [reference]	No. of treatments	Mean age (y)	% Boys	Ethnicity	Clinically referred	Sample diagnosed	Treatment manual [reference]	Description
Youth-focused treatments	20							
CBT	13							
[162]		16	36	64% Caucasian 27% African American 9% mixed ethnicity	No	None	*Feeling Good* [163]	CBT for depression
[46]		16	24	83% Caucasian 17% other	No	All	*Cognitive Behavior Therapy* [164]	CBT for MDD
[165]		15	30	93% Caucasian 7% other	No	None	*Adolescent Coping With Stress Course* [165]	CBT for subsyndromal depression
[166]		16	29	—	No	None	*Coping with Depression Course–Adolescent Version* [44]	CBT for MDD and DD
[167]		15	36	—	No	None	*Adolescent Coping With Stress Course* [165]	CBT for subsyndromal depression
[168]		12	49	—	No	None	*Coping with Depression Course–Adolescent Version* [169]	CBT for moderate-to-severe depression
[44]		16	39	87% Caucasian 13% other	No	None	*Coping with Depression Course–Adolescent Version* [170]	CBT for MDD and minor and intermittent depression
[171]		16	37	100% Caucasian	No	None	—	CBT for moderate depression
[172]		15	46	100% Puerto Rican	Yes	All	*Cognitive-Behavioral Treatment (U)*	CBT for depression

[173]		11	57	—	No	None	*Behavioral Problem-Solving Training* [174]	CBT for depression
[173]		11	57	—	No	None	*Self-Control Therapy* [175]	CBT for depression
[176]		10	54	63% Caucasian 34% African American 4% other	No	None	*Primary and Secondary Control Enhancement Training (U)*	CBT for mild-to-moderate depression
[177]		14	31	—	No	All	*Depression Treatment Programme (U)*	CBT for depression
IPT	2							
[45]		16	27	71% Latino 29% non-Latino	Yes	All	*Interpersonal Psychotherapy for Depressed Adolescents* [178]	IPT for MDD
[172]		15	46	100% Puerto Rican	Yes	All	*Interpersonal Psychotherapy Treatment (U)*	IPT for depression
Modeling	1							
[168]		12	49	—	No	None	—	Self-modeling treatment for moderate-to-severe depression
Social skills training	1							
[179]		17	50	28% Caucasian 61% African American 11% Latino	—	All	*Skill Streaming The Adolescent: a Structured Learning Approach to Teaching Prosocial Skills* [180]	Social skills for MDD and DD
Relaxation training	2							
[168]		12	49	—	No	None	*Relaxation Dynamics: Nine World Approaches to Self-Relaxation* [181]	
Other/eclectic therapy	1							
[182]		14	23	—	Yes	None	—	Group therapy and usual care for deliberate self-harm

(continued on next page)

Table 2 (*continued*)

Type of treatment [reference]	No. of treatments	Mean age (y)	% Boys	Ethnicity	Clinically referred	Sample diagnosed	Treatment manual [reference]	Description
Family-focused treatments	2							
[46]		16	24	83% Caucasian 17% other	No	All	*Systemic Behavior Family Therapy* [164]	Systemic behavioral family therapy for MDD
[183]		15	22	31% Caucasian 69% African American	No	All	*Attachment-Based Family Therapy: Facilitating Reattachment* [184]	Attachment-based family therapy for MDD
Multitargeted/ multisystem treatments	4							
Youth and parent sessions	2							
[166]		16	29	—	No	None	*Coping with Depression Course–Adolescent Version* [335] *Course for Parents of Adolescents Enrolled in the Adolescent Coping With Depression Course* [47]	CBT with child and parent for MDD and DD
[44]		16	39	87% Caucasian 13% other	No	None	*Coping with Depression Course–Adolescent Version* [170] *The Coping with Depression Course–Adolescent Version: Parent Manual* [185]	CBT with child and parent for MDD, and minor and intermittent depression

Youth, parent, family, and teacher sessions	2							
[186]		15	47	40% Caucasian 12% African American 7% Latino 13% Asian 2% Native American 17% mixed ethnicity 9% unknown	No	None	—	Counselor CARE for suicide and drop-out risk
[186]		15	47	40% Caucasian 12% African American 7% Latino 13% Asian 2% Native American 17% mixed ethnicity 9% unknown	No	None	—	Counselor CARE plus 12-session coping and support for suicide and drop-out risk

Abbreviations: DD, dysthymic disorder; IPT, interpersonal therapy; MDD, major depressive disorder; *U*, unpublished manual; —, not reported.

relatives or friends, dealing with peer pressure, and sometimes functioning within single-parent families. The program has three phases. In the initial phase, the therapist works with the parents and adolescent to assess familial and other social relationships, decide on which interpersonal problem areas to focus, and develop a treatment contract. In the middle phase, the therapist and adolescent work directly on the identified problem areas, and the adolescent is encouraged to monitor depressive symptoms, work on expression of affect, link affect with life events, examine conflicts and styles of communication, and use various strategies (eg, role play) to try out various forms of behavior change. In the termination phase, the adolescent works toward giving up the relationship with the therapist and establishing a sense of competence to deal with future problems. Therapists may add booster sessions to the standardized protocol as needed.

Family-focused and multitarget interventions

Table 2 also identifies tested treatments that focus on families and other treatments that focus on multiple targets (eg, youths and parents) separately. An example of a family-focused approach is systemic behavioral family therapy, developed by Brent et al [46]. The first phase of systemic behavioral family therapy is designed to clarify the concerns that brought the family into treatment. In this phase, the therapist provides a series of reframing statements designed to enhance engagement in therapy and identification of problem behavior patterns. In the second phase, family members focus on developmental and parenting issues, communication patterns, and problem-solving skills, with the goal of altering unproductive family interaction patterns.

To illustrate multitarget treatments, we return to the CWD-A program [47] described previously. In some of their work, the CWD-A collaborators have combined treatment of adolescents with a parallel program for their parents. In this program, parents are apprised of the basic skills that their teenagers are learning and are taught the more advanced skills (ie, communication and problem solving). Parents receive a workbook and meet with the therapist weekly in 2-hour sessions over7 to 9 weeks of the adolescent course; two joint sessions also can be included, with the parents and adolescents meeting together to practice their communication skills. The parent program is based on the notion that parent–adolescent relationships may be central not just to the development of the adolescent's identity but to onset, perpetuation of, and recovery from depression.

Treatments for externalizing conditions: attention and hyperactivity symptoms and disorders

The 46 studies in the attention and hyperactivity domain spanned the years 1968 to 2001, with mean age of the samples ranging from a low of 4.1 years to a high of 13.9 years. Ninety separate treatment groups were tested; of these, 52 (58%) showed statistically significant treatment benefit over a control or

comparison group on at least one target outcome measure. The kinds of treatments that showed significant benefit are listed in Table 3. Most of these treatments were child-focused interventions, predominantly behavioral and cognitive behavioral. Other empirically supported interventions included behavioral parent training, behavioral teacher training (or classroom management programs), and multisystem treatments that targeted child, parent, or teacher behavior. Many treatment conditions did not employ specific treatment manuals, but we have listed the treatment manuals that were identified. No single treatment manual was used in more than one comparison.

Our findings differ somewhat from those presented by Pelham and colleagues [21] in their review of evidence-based treatments for ADHD. They reported that behavioral parent training and behavioral interventions in the classroom were the best-supported psychosocial treatments for ADHD, whereas child-focused psychosocial interventions including CBT had limited support. The difference between their conclusions and our conclusions may reflect certain methodologic differences in reviewing methods. For example, we required random assignment and a between-group design, whereas Pelham et al [21] included studies that used nonrandom group assignment and within-subject designs. Also, we examined only psychosocial treatments and controls, whereas Pelham et al [21] included treatment and control groups that involved medication. In the following section, we present examples of ADHD treatments that are beneficial according to our criteria.

Youth-focused cognitive behavioral treatment

Most of the successful treatments for ADHD fall into the broad behavioral category. Among the youth-focused treatments, our criteria indicate that the most widely supported behavioral approach is CBT (but compare Pelham et al [21]). Although there were several useful precursors to CBT, many in the field credit Meichenbaum and Goodman [48] with launching this approach to youth treatment. These investigators used what they then called self-instructional training to help impulsive second graders reduce their impulsivity and improve their performance on tasks that required concentration, including an IQ test. In the training program, involving four 1-hour sessions spread over 2 weeks, children learned to talk to themselves first overtly and then covertly to guide their own behavior. Initially, each child observed the adult trainer perform tasks while talking through the steps being followed. Each child then performed tasks using self-instruction pronounced aloud, then in whispers, and finally, covertly with no lip movements. The following is an example of the kind of self-instruction the trainers taught the children to use:

> Okay, what is it I have to do? You want me to copy the picture with the different lines. I have to go slow and be careful. Okay, draw the line down, down, good; then to the right, that's it; now, down some more and to the left. Good, I'm doing fine so far. Remember to go slow. Now back up again. No, I was supposed to go down. That's okay. Just erase the line carefully. . ..Good. Even if I make an error I can go on slowly and carefully. Okay, I have to go down now. Finished. I did it.

Table 3
Randomized controlled trials and treatments showing significant effects on attention, hyperactivity, impulsivity and attention-deficit/hyperactivity disorder

Type of treatment [reference]	No. of treatments	Mean age (y)	% Boys	Ethnicity	Clinically referred	Sample diagnosed	Treatment manual [reference]	Description
Youth-focused treatments	43							
CBT	30							
[49]		6	50	—	No	None	—	Strategy training for impulsivity
[49]		6	50	—	No	None	—	Verbal self-instruction for impulsivity
[49]		6	50	—	No	None	—	Verbal self-instruction and strategy training for impulsivity
[187]		9	100	—	No	None	—	Attention training for hyperactivity
[187]		9	100	—	No	None	—	Inhibitory control training for hyperactivity
[187]		9	100	—	No	None	—	Attention and inhibitory control training for hyperactivity
[188]		9	80	—	No	All	—	CBT for ADD
[189]		9	85	—	No	All	—	CBT for ADHD
[190]		14	44	—	No	None	*Computer-Aided Self-Instruction Training with Impulsive Deaf Students and Learning Disabled Students* [191]	CBT for impulsivity
[192]		9	100	—	No	None	Unnamed video	CBT for impulsivity
[193]		7	—	—	No	None	—	Training to delay responses for impulsivity
[193]		7	—	—	No	None	—	Training to scan for impulsivity
[194]		10	94	—	No	None	—	CBT for impulsivity in children with a leaning disability
[195]		11	100	—	No	All	*Training Manual For Self-Training and Regulation (STAR) Program (U)*	CBT for ADHD

[196]	10	—	—	Yes	All	*Self-Control Training (U)*	CBT for hyperactivity
[197]	10	92	90% Caucasian 8% African American 2% other	Yes	All	*The Self-Control Game* [198]	Self-control training for ADHD
[50]	11	76	—	No	None	—	Conceptual self-instructional training for impulsivity
[48]	6	53	—	No	None	—	Modeling and cognitive self-instructional training for impulsivity
[199]	8	—	100% African American	No	None	—	Self-instruction/self-reinforcement for impulsivity
[200]	10	100	—	No	None	—	Detailing training for impulsivity
[200]	10	100	—	No	None	—	Perceptual discrimination for impulsivity
[201]	10	100	100% Caucasian	Yes	None	—	Verbal training for hyperactivity
[202]	10	100	100% Caucasian	Yes	None	—	Verbal training hyperactivity
[203]	8	—	—	No	None	—	Scanning strategy instructions for impulsivity
[203]	8	—	—	No	None	—	Verbal self-instructions for impulsivity
[203]	8	—	—	No	None	—	Scanning strategy and verbal self-instruction for impulsivity
[204]	8	60	70% Caucasian 30% other	No	None	*Developing Self-Control in Children: a Manual of Cognitive Behavioral Strategies* [205]	Self-control and attribution training for hyperactivity
[206]	9	52	—	No	None	—	General problem solving for impulsivity
[206]	9	52	—	No	None	—	Task-specific problem solving for impulsivity
[206]	9	52	—	No	None	—	Directed discovery for impulsivity

(continued on next page)

Table 3 (*continued*)

Type of treatment [reference]	No. of treatments	Mean age (y)	% Boys	Ethnicity	Clinically referred	Sample diagnosed	Treatment manual [reference]	Description
Relaxation training	4							
[207]		8	100	—	No	None	*Behavior Therapy Techniques: a Guide to the Treatment of Neuroses* [101]	Relaxation training for inattention, hyperactivity, and impulsivity
[54]		7	100	—	No	None	*Progressive Relaxation* [99]	Relaxation training for hyperactivity
[52]		10	78	—	No	None	*The Relaxation Response* [53]	Relaxation training for inattention and off-task behavior
[56]		10	100	—	No	None	*Peace, Harmony and Awareness* [208]	Relaxation training for inattention, hyperactivity, and impulsivity
Biofeedback	3							
[57]		9	75	—	No	None	—	EEG biofeedback training for ADHD
[197]		10	92	90% Caucasian 8% African American 2% other	Yes	All	—	Self-control training using biofeedback game play for ADHD
[55]		11	100	—	No	None	*Peace, Harmony and Awareness* [208]	Biofeedback-induced relaxation training for hyperactivity
Operant treatment	1							
[209]		9	100	—	No	All	—	Continuous reinforcement during paired-associate memory tasks for the performance of boys with ADHD
Modeling	2							
[192]		9	100	—	No	None	Unnamed video	Modeling for impulsivity
[48]		6	53	—	No	None	—	Modeling for impulsivity
Social skills training	1							
[210]		9	70	96% Caucasian 4% African American	No	All	—	Social skills training for ADHD

Other/eclectic therapy	2							
[207]		8	100	—	No	None	—	Large muscle exercise for inattention, hyperactivity, and impulsivity
[58]		8	100	86% Caucasian 14% other	No	All	—	Interactive metronome training for ADHD
Parent-focused treatments	2							
[211]		4	95	—	No	All	Unnamed manual	Behavioral parent training for ADHD and noncompliance
[212]		4	89	—	No	All	Unnamed manual	Behavioral parent training for ADHD
Teacher-focused treatments	1							
[213]		5	67	—	No	None	*Educational Management in ADHD: a Handbook for Diagnosis and Treatment* [214]	Full-day treatment classroom for inattention, hyperactivity, impulsivity, and aggressiveness
Multitargeted/ multisystem treatments	6							
Youth and parent sessions	2							
[210]		9	70	96% Caucasian 4% African American	No	All	—	Child social skills training with parent-mediated generalization for ADHD
[54]		7	100	—	No	None	*Progressive Relaxation* [99]	Child relaxation training and parent relaxation and support training for hyperactivity
Youth and family sessions	1							
[215]		10	100	—	Yes	All	Unnamed manual	CBT with child and family for ADHD

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Table 3 (*continued*)

Type of treatment [reference]	No. of treatments	Mean age (y)	% Boys	Ethnicity	Clinically referred	Sample diagnosed	Treatment manual [reference]	Description
Youth, parent, and teacher sessions	1							
[216]		9	69	95% Caucasian 5% other	No	All	*Cognitive-Behavioral Therapy For ADHD Children: Child, Family, and School Interventions* [217]	Multicomponent CBT for ADHD
Parent and teacher sessions	2							
[213]		5	67	—	No	None	*Defiant Children: a Clinician's Manual for Assessment and Parent Training* [218] *Educational Management in ADHD: a Handbook for Diagnosis and Treatment* [214]	Behavioral parent training and special classroom for inattention, hyperactivity, impulsivity, and aggressiveness
[219]		10	—	—	No	None	—	Behavioral parent and teacher training for hyperactivity

Abbreviations: ADD, attention deficit disorder; EEG, electroencephalograph; *U*, unpublished manual; —, not reported.

Across multiple activities, the procedures were designed to teach children to identify the requirements of a task, rehearse the task mentally, guide their own performance through self-talk, and give appropriate encouragement and praise to themselves when they did well.

As Table 3 shows, the Meichenbaum and Goodman [48] article was followed by an explosion of intervention trials that used elements of their procedure and contributed to the genre that has come to be called CBT. As an example, Bender [49] found that training impulsive first graders to guide themselves using self-talk led to slower (ie, less impulsive) responses and fewer errors on a letter- and picture-matching task. Kendall and Wilcox [50] used their own adaptation of self-instructional training with 8- to 12-year-olds referred by teachers for "problematic lack of self-control that interfered with both personal and classroom performance and general classroom deportment." Children were trained across six 30- to 40-minute sessions to guide their own behavior on various tasks by (1) identifying the requirements of the task, (2) planning a strategy, and (3) focusing attention on the task, (4) using coping statements when mistakes were made, and (5) giving self-reinforcement for success at the task. Afterward, blind teacher ratings indicated that this intervention improved self-control and reduced hyperactivity. As a final example, Hinshaw et al [51] enhanced self-control among hyperactive boys in a summer camp program by having the boys rate their own behavior on the playground (ie, how cooperative they were), with points awarded for matching the ratings given to them by camp staff. This effort to enhance accurate self-monitoring was associated with reduced negative social behavior and increased levels of prosocial, cooperative behavior in the camp setting.

Youth-focused relaxation training, biofeedback, metronome training

A second broad genre of interventions that shows some benefit for ADHD involves efforts to achieve a calm or focused state through means that are at least partially physiologic. For example, Redfering and Bowman [52] reduced non-attending behavior in "behaviorally disturbed" 8- to 11-year-olds by simply playing tapes with relaxation/meditation instructions (based on the work of Benson [53]) for the children, across five 30-minute sessions. Porter and Omizo [54] reported that group relaxation training, together with large muscle exercise followed by rest and deep breathing, significantly reduced impulsivity and improved attentiveness in hyperactive first and second graders. In two related studies, Omizo and colleagues [55,56] combined relaxation training with biofeedback in their work with hyperactive children. While listening to parts of a relaxation-induction audiotape, youngsters received visual and auditory feedback (eg, clicks) from an electromyometer that measured muscle activity in the frontalis area. Children were told that their job, across the relaxation-biofeedback sessions, was to keep their bodies relaxed enough that the feedback would show a sustained pattern of low activity. Only three to four sessions, less than 30 minutes each, were associated with significantly reduced impulsivity and gains in attention on a postintervention performance task.

A more traditional biofeedback approach was used by Carmody et al [57] with 8- to 10-year-olds diagnosed with ADHD. Youngsters received 35 to 47 half-hour sessions of electroencephalograph biofeedback training that spanned 6 months. Sitting in a chair in front of a computer monitor, with electrodes attached to head and ears, the boys and girls viewed video games in which they earned points by modifying the audio and video displays (accomplished by altering their own delta-theta and beta waves). Participation in these electroencephalogram feedback sessions were associated with improved test performance and teacher ratings of attention.

Another approach designed to encourage focusing and discourage distraction is a procedure called interactive metronome training, used by Shaffer et al [58] to treat 6- to 12-year-old boys diagnosed with ADHD. In this approach, youngsters sit in front of a computer monitor wearing headphones and contact-sensing triggers attached to a hand and to the floor near the youths' feet. Each youth's task is to tap hands or feet in synch with the left-right rhythm of the metronome beat, fed in through the headphones. The object of this training (spread over 15 1-hour sessions in the Shaffer et al [58] procedure) is to improve the ability to attend selectively for extended periods, without allowing internal thoughts or external distractions to derail one's focus. ADHD youths who received this treatment in the Shaffer et al [58] study proved superior to comparison youths on measures of attention, motor control, and several academic skills.

Parent, teacher, multitarget behavioral interventions

Behavioral treatments, particularly those that apply operant principles to contingency management, are used extensively to help improve the functioning of youth with ADHD and related problems. As Table 3 reveals, however, the most extensive empiric support for such approaches applies to their use with adults in the child's world, in interventions designed to alter the environments in which the child functions. At the heart of these procedures is behavioral parent training aimed at creating contingencies in the home that will make self-control and appropriate social behavior more rewarding for the child than less desirable behavior. Because so many ADHD-related problems appear in the school setting, an important complement to parent training programs are teacher- and classroom-focused training programs designed to establish and maintain contingencies at school that will reinforce self-control, attention to school work, and appropriate social behavior with teachers and peers. Moreover, because parent- and teacher-focused programs often involve sessions with the youth to practice management skills, negotiate behavioral contracts, and so forth, it is common for parent- and teacher-oriented programs to evolve into multitarget programs that also include the youth.

To illustrate, we focus on behavioral parent training and how it extends to children and to the classroom. The typical parent training format includes assigned readings on the use of behavioral principles with children and a series of 8 to 20 weekly group sessions held in a clinic. The sessions focus on learning

and applying behavioral principles and methods with the individual children involved. Coverage usually includes core behavioral notions such as maximizing parental attention (and praise) in response to appropriate child behavior; withholding attention (and praise) when behavior is inappropriate; developing reward and incentive systems (eg, charts, points, tokens) to encourage desired behavior; and effective use of time-out for noncompliance.

We illustrate behavioral parent training with one particularly widely used program: Barkley's *Defiant Children: a Clinician's Manual for Assessment and Parent Training* [59], which has been tested in its own right and has been used as a basis for other behavioral training programs noted in Table 3. Designed for youths aged 2 to 12 years, the program includes 10 sessions or ''steps'' intended to last about 1 hour each with individual families (2 hours for groups of families). For most sessions, the therapist meets only with parents, but the child is included for parts of sessions, for discussion, for practice in some of the skills that the parents are using, and for input into some of the procedures and consequences (eg, what privileges good behavior will earn). At the beginning, the therapist leads parents through a review of information on the nature, etiologies, developmental course, and prognosis of ADHD; video illustrations and reading material may be included. The therapist and parents then discuss and practice procedures for attending closely to appropriate child behavior, and arrangements are made for parents to implement these procedures at designated times at home. Parents also learn how to give effective instructions to their child (eg, how to make requests brief and clear) and how to respond immediately with positive attention when the child complies. In some cases, parents develop a system for making reinforcement concrete at home, sometimes by creating a kind of token economy. Parents also learn to use consequences for noncompliant and inappropriate behavior, including loss of points or chips in the token economy and time-out.

Because so many parent concerns associated with ADHD relate to their children's behavior at school, the Barkley program includes a focus on procedures for improving school behavior. The procedures emphasize ways of coordinating communication with school personnel so that (1) teachers and parents are in regular contact regarding the child's behavior at school and (2) parents can provide appropriate incentives and reinforcements at home for what the child does at school. A key to this process is the daily school behavior report card. Parents identify the primary problems the child has been having at school, and a few of these become entries on the card, phrased as positive behaviors expected of the child. For example, disobeying the teacher might become ''Obeys teacher.'' For each such item, teachers are asked to make numeric ratings each day (1 = excellent to 5 = very poor), and each day, the child's job is to bring the card home. If homework compliance has been a problem, then the child also may be required to write the day's homework on the back of the card and have the teacher initial it. At home after school, parents review the card with their child, beginning with praise for good ratings and then moving to the more negative ratings, for which the child is asked to describe what behavior contributed and to say what can be done the next day to improve. In addition,

each day's ratings fit into the family's contingency system, with reinforcement (tokens, points, praise) provided for good ratings and more negative consequences for poor ratings. Every few weeks, parents meet with the teachers to review the report cards and work out strategies for dealing with persistent problems.

In the sections of Table 3, we distinguish between programs that are primarily focused on parents, on youths, or on multiple targets or systems. As the Barkley example illustrates, however, even programs that place their primary emphasis on parents can expand rapidly to encompass the youth and others in the youth's world outside the family.

Treatments for externalizing conditions: conduct-related problems and disorders

The 135 studies in the conduct domain spanned the years 1963 to 2002 and included 229 separate treatment groups, with mean ages of the samples ranging from 3.5 to 17.5 years. Of the 229 treatment groups tested, 136 (59%) showed statistically significant treatment benefit over a control or comparison group on at least one target outcome measure. A breakdown of the kinds of treatments is provided in Table 4, along with the treatment name and the manual name.

One specific child-focused intervention that has shown consistent support across repeated trials is Kazdin's Problem-Solving Skills Training (supported in three trials). Two behaviorally oriented parent training programs also have been supported across multiple studies: Webster-Stratton's video-guided parent training program has been supported in 13 comparisons, and Patterson's parent training program and programs derived in part from it have been supported in 8 comparisons. Eyberg's family-focused parent–child interaction therapy has been supported in 3 comparisons. Finally, multisystemic therapy (discussed by Farmer and Dorsey elsewhere in this issue) has shown significant effects in 7 trials.

Youth-focused operant treatment

Treatments classified into the operant category are those that emphasize reinforcement contingencies, including response cost and time-out. For example, Autry and Langenbach [60] succeeded in reducing disruptive fourth-, fifth-, and sixth-grade boys' levels of disruptive behavior in class by rewarding the boys with tokens for such reductions; the tokens were redeemable for items from the school store and for special privileges including free time, being group leader, and taking a class pet home for the weekend. In a very different cultural context, Moracco and Kazandkian [61] were able to reduce disruptive behavior among teacher-referred 7- to 11-year-olds in a Beirut, Lebanon elementary school by using operant procedures. In a series of behavioral counseling sessions, children were reinforced with praise and attention when they behaved appropriately and when they made responsible prosocial statements; in contrast, inappropriate behavior and verbalization were systematically ignored, with the counselor turning her head away and looking uninterested. In a different operant approach,

Forman [62] was able to reduce aggressive behavior among teacher-referred inner-city elementary school children using a procedure called response cost. In essence, children were fined for each episode of aggressive behavior by having 2 minutes deducted from their 30-minute recreational period spent with two graduate students visiting their school. A fourth example of behavior change with operant procedures is found in the report by Jesness [63] who used them with adjudicated boys in the California Youth Authority. This program involved eight living units for 15- to 17-year-olds. Each unit operated under a microeconomy in which appropriate behavior earned institutional ''dollars'' and points. The dollars could be used to purchase objects, services, and recreational activities. Points could accumulate to earn a recommendation for parole and release. Charts showing points earned by each boy were placed in conspicuous locations as an additional form of reinforcement. The program had significant effects on behavior ratings in the institution and recidivism after discharge.

Youth-focused cognitive behavior therapy

CBT for youth conduct problems has taken a variety of forms, as shown in Table 4. We illustrate the CBT approach by focusing on a particularly well-tested example: Problem-Solving Skills Training (see earlier text) [64]. In essence, this approach is designed to teach aggressive youngsters to use their heads before using their fists. The children, aged 7 to 13 years, go through approximately 20 45-minute individual sessions with a therapist to learn basic steps of problem solving, practiced initially by way of familiar games. Youngsters then learn to apply these steps to interpersonal situations, including the kinds of situations that often lead to aggression. The core skills of the program are embodied in the five problem-solving steps, presented as five thoughts the youth is expected to review when confronting a problem:

Step 1. What am I supposed to do? The first step is to clearly identify the problem. This may seem a simple task at first, but it may be challenging and informative. For example, some aggressive children discover that they are responding to a vague sense of frustration. Step 1 can help focus attention on the specific problem at hand and, thus, facilitate focused problem solving.

Step 2. I have to look at all my possibilities. The next task is to list possible solutions to the problem. Aggressive children may tend to identify only one possible solution, which may not be a very adaptive one. This procedure is intended to help enrich the universe of possible solutions and to ensure that the array of possibilities includes at least some prosocial options.

Step 3. I'd better concentrate and focus in. The next step is to examine the pros and cons of the various solutions identified. Children are led through hypothetic reasoning about what the outcome might be if they choose option A, option B, and so forth. A goal is to identify the risky options and the promising ones.

Table 4
Randomized controlled trials and treatments showing significant effects on conduct problems, oppositional defiant disorder, and conduct disorder

Type of treatment [reference]	No. of treatments	Mean age (y)	% Boys	Ethnicity	Clinically referred	Sample diagnosed	Treatment manual [reference]	Description
Youth-focused treatments	63							
Operant treatment	7							
[60]		10	100	—	No	None	—	External regulation for conduct problems
[60]		10	100	—	No	None	—	Self-regulation (disruptive) for conduct problems
[60]		10	100	—	No	None	—	Self-regulation (constructive) for conduct problems
[62]		10	78	11% Caucasian 89% African American	No	None	—	Response cost for aggressive behavior
[63]		17	100	56% Caucasian 28% African American 13% Latino 2% other	Jail	None	*Some Variations in Techniques of Contingency Management in a School for Delinquents* [220]	Behavior modification for delinquency
[221]		14	100	90% Caucasian 10% other	No	None	—	Behavioral group therapy for conduct problems
[61]		9	—	100% Lebanese	No	None	—	Behavioral group counseling for conduct problems
CBT	28							
[222]		15	73	—	No	None	*Teaching Moral Reasoning* [223] *Moral Education* [224]	Moral reasoning development for aggressive behavior
[225]		7	100	—	No	None	Unnamed manual	CBT for aggressive behavior

[226]	12	53	78% Caucasian 19% Latino 2% Asian 1% Native American	No	None	—	Cognitive relaxation coping skills for anger problems
[227]	14	—	—	No	None	*Anger Control Training (U)*	CBT for conduct problems
[62]	10	78	11% Caucasian 89% African American	No	None	—	Cognitive restructuring for aggressive behavior
[228]	17	50	—	Jail	None	*Cognitive Meditation Training (U)*	Cognitive mediation training for aggressive behavior
[229]	16	73	51% Caucasian 39% African American 10% other	Jail	None	—	CBT plus usual case management or delinquency
[230]	11	80	77% Caucasian 23% African American	Yes	Some	*Problem-Solving Skills Training (U)*	PSST and usual inpatient for conduct problems
[231]	11	78	55% Caucasian 45% African American	Yes	Some	*Problem-Solving Skills Training (U)*	PSST for conduct problems
[231]	11	78	55% Caucasian 45% African American	Yes	Some	*Problem-Solving Skills Training (U)* *In Vivo Practice*	PSST and in vivo practice for conduct problems
[232]	10	70	—	No	None	Unnamed manual (U)	Group CBT for conduct problems
[232]	10	70	—	No	None	Unnamed manual (U)	Individual CBT for conduct problems

(continued on next page)

Table 4 (*continued*)

Type of treatment [reference]	No. of treatments	Mean age (y)	% Boys	Ethnicity	Clinically referred	Sample diagnosed	Treatment manual [reference]	Description
[233]		10	76	59% Caucasian 41% African American	No	None	—	Coping skills training for aggressive behavior
[234]		18	100	—	Jail	None	—	Group problem solving skills training for delinquency
[235]		6	96	63% Caucasian 37% African American	Yes	None	—	Group fire safety prevention skills and usual inpatient for fire-setting risk
[236]		7	77	62% Caucasian 37% African American 2% Latino	No	None	*Support Groups for Children* [237]	CBT for conduct problems
[238]		18	—	—	Jail	None	*Social Metacognitive Proble-Solving Curriculum (U)*	Social metacognitive training for delinquency in children with a learning disability
[238]		18	—	—	Jail	None	*Social Metacognitive Problem-Solving Curriculum (U)*	Social metacognitive training for delinquency in children without a learning disability
[239]		15	0	—	Jail	Some	*Anger Management (U)*	Anger management for anger problems
[240] (Sample 1)		7	67	53% Caucasian 47% African American	No	None	*Cognitive Behavioral Self-Modification: an Integrative Approach* [241]	CBT for conduct problems
[240] (Sample 2)		9	67	53% Caucasian 47% African American	No	None	*Cognitive Behavioral Self-Modification: an Integrative Approach* [241]	CBT for conduct problems
[242]		10	58	—	No	None	—	CBT for aggressive behavior

[243]	10	60	—	No	None	*Cognitive-Behavioral Art Therapy (U)*	Cognitive-behavioral art therapy for conduct problems
[244]	12	100	71% Caucasian 29% African American	Yes	Some	*A Manual for Stress Inoculation for Anger Control in Children* [245]	Anger management for aggressive behavior
[67]	16	100	—	Jail	None	—	Stress inoculation training for anger control problems
[246]	11	78	—	Yes	All	*Cognitive-Behavioral Skill Building (U)*	Cognitive behavioral skill building for CD
[247]	—	56	22% Caucasian 50% African American 16% Latino 2% Asian 10% mixed ethnicty	Yes	None	*Anger Management* Group Training (U)	Group CBT for anger problems
[248]	16	60	33% Caucasian 33% African American 33% Puerto Rican	Jail	None	*Cognitive Self-Instruction (U)*	Cognitive self-instruction for conduct problems
Social skills training	9						
[226]	12	53	78% Caucasian 19% Latino 2% Asian 1% Native American	No	None	—	Social skills training for anger problems
[249]	14	100	100% African American	No	None	—	Professional counselor assertive training for aggressive behavior
[249]	14	100	100% African American	No	None	—	Peer counselor assertive training for aggressive behavior
[66]	10	100	—	No	None	*Las Habilidades Sociales en la Infancia* [250]	Social skills treatment for conduct problems

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Table 4 (*continued*)

Type of treatment [reference]	No. of treatments	Mean age (y)	% Boys	Ethnicity	Clinically referred	Sample diagnosed	Treatment manual [reference]	Description
[251]		14	80	—	No	None	*Your Perfect Right* [252]	Assertion training for aggressive behavior
[65]		8	52	100% African American	No	None	*Social Relations Intervention (U)*	Social relations intervention for aggressive behavior
[253]		13	100	—	Jail	None	*Social Skills Training with Children and Adolescents: a Counselor's Manual* [254]	Social skills training and residential care for delinquency
[255]		7	63	100% Caucasian	No	None	*Your Perfect Right* [252] *Stand Up, Speak Out, Talk Back* [256]	Assertiveness social skills training for aggressive behavior
[83]		6	74	86% Caucasian 14% other	—	All	*Dinosaur Social Skills and Problem Solving Training Manual (U)*	Child behavioral group for ODD and CD
Relaxation training	2							
[68]		11	67	—	No	None	*The Relaxation Response* [53]	Relaxation training for conduct problems
[67]		16	100	—	Jail	None	—	Relaxation training for anger control problems
Psychodynamic therapy	3							
[63]		17	100	56% Caucasian 28% African American 13% Latino 2% other	Jail	None	*Transactional Analysis (U)*	Transactional analysis for delinquency
[69]		10	90	90% Jewish 5% Arab 5% Druz	No	None	—	Individual therapy for aggressive behavior

[69]		10	90	90% Jewish 5% Arab 5% Druz	No	None	—	Group therapy for aggressive behavior
Play therapy	1							
[70]		8	50	—	No	None	*Disruptive Child's Play Group (U)*	Play group for conduct problems
RET	1							
[257]		16	48	50% African American 50% Latino	No	None	*Rational Emotive Education: a Manual for Teachers* [258]	RET for conduct problems
Other/eclectic therapy	12							
[259]		10	91	—	No	Some	—	Physical exercise and usual day-treatment care for ODD and CD
[260]		17	100	45% Caucasian 55% African American	Jail	None	—	Physical exercise, counseling, and usual institutional care for delinquency
[261]		—	—	—	Jail	None	—	Community outreach and probation for delinquency
[262]		16	100	67% Caucasian 32% African American 2% Latino	Jail	None	—	EQUIP Experimental Unit for delinquency
[263]		16	61	—	No	None	—	Cross-age tutoring for conduct problems
[264]		16	—	—	No	None	—	Therapeutic discipline for truancy
[265]		16	100	26% Caucasian 74% African American	No	None	—	Eclectic therapy for delinquency

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Table 4 (*continued*)

Type of treatment [reference]	No. of treatments	Mean age (y)	% Boys	Ethnicity	Clinically referred	Sample diagnosed	Treatment manual [reference]	Description
[266]		16	100	81% Caucasian 19% African American	Jail	None	—	Eclectic therapy for delinquency
[267]		17	0	54% Caucasian 46% African American	Jail	None	—	Client-centered counseling for delinquency
[243]		10	60	—	No	None	—	Group art therapy for conduct problems
[268]		13	79	—	No	None	—	Multidimensional program with bibliography of clarifying processes for aggressive behavior
[269]		16	16	—	Jail	None	—	Group psychotherapy for delinquency
Parent-focused treatments	35							
Behavioral parent training	34							
[270]		14	100	—	Yes	None	*A Social Learning Approach to Family Intervention, Vol. I: Families with Aggressive Children* [271] *Parents and Adolescents Living Together Part I* [272] *Parents and Adolescents Living Together Part II* [273] *The Adolescent Transitions Program* [274]	Behavioral parent training for delingquency

[275]	4	67	—	No	None	—	Time-out (child release) for noncompliance
[275]	4	67	—	No	None	—	Time-out (parent release) for noncompliance
[276]	8	86	—	No	None	*Living with children* [76]	Behavioral parent training for conduct problems
[277]	4	44	—	No	Some	*Every Parent* [278] *Every Parents Workbook* [279]	Triple P for oppositional behavior
[280]	8	—	—	No	None	Unnamed manual	Behavioral parent training for conduct problems
[281]	5	51	—	No	None	*A Family Systems Approach to Parent Training* [282]	Group/community-based behavioral parent training for conduct problems
[283]	7	—	100% Caucasian	No	None	*Parents are Teachers: A Child Management Program* [284]	Behavioral modification for conduct problems
[285]	12	100	90% Caucasian 10% other	No	None	Unnamed manual	Behavioral parent training for conduct problems
[286]	7	100	—	No	None	*A Social Learning Approach to Family Intervention, Vol I: Families with Aggressive Children* [271]	Behavioral parent training (mother only) for conduct problems
[286]	7	100	—	No	None	*A Social Learning Approach to Family Intervention, Vol I: Families with Aggressive Children* [271]	Behavioral parent training (both parents) for conduct problems

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Table 4 (*continued*)

Type of treatment [reference]	No. of treatments	Mean age (y)	% Boys	Ethnicity	Clinically referred	Sample diagnosed	Treatment manual [reference]	Description
[287]		8	—	—	Yes	None	*A Social Learning Approach to Family Intervention, Vol I: Families with Aggressive Children* [271])	Behavioral parent training for conduct problems
[288]		12	81	—	Yes	None	—	Communication skills problem solving (child absent) for conduct problems
[288]		12	81	—	Yes	None	*A Social Learning Approach to Family Intervention, Vol I: Families with Aggressive Children* [271]	Contingency management (child absent) for conduct problems
[289]		8	82	100% Caucasian	Yes	None	—	Behavioral parent training for noncompliance
[290]		10	—	—	No	None	*Parents Learn Through Discussion* [336] *A Social Learning Approach to Family Intervention, Vol I: Families with Aggressive Children* [271]	Behavioral parent training for conduct problems
[71]		7	69	—	Yes	None	*A Social Learning Approach to Family Intervention, Vol I: Families with Aggressive Children* [271]	Behavioral parent training for aggressive behavior

[291]	4	—	—	No	None	—	Command training for noncompliance
[291]	4	—	—	No	None	—	Time-out and command training for noncompliance
[292]	4	66	—	Yes	None	—	Time-out for noncompliance
[292]	4	66	—	Yes	None	—	Time out and attention reinforcement for noncompliance
[293]	6	57	48% Caucasian 18% African American 27% Latino 7% other	No	None	*Videotape Modeling: a Method of Parent Education* [294] *Parent and Children Series Videocassette Program* [295]	Behavioral parent training and problem solving for conduct problems
[293]	6	57	48% Caucasian 18% African American 27% Latino 7% other	No	None	*Videotape Modeling: a Method of Parent Education* [294] *Parent and Children Series Videocassette Program* [295]	Behavioral parent training and discussion for conduct problems
[296]	6	64	90% Caucasian 10% other	No	None	*The Parents and Children Videotape Series* [297]	Behavioral parent training for conduct problems
[298]	4	66	—	No	None	*Videotape Modeling: a Method of Parent Education* [294]	Behavioral parent training for conduct problems
[72]	5	71	—	No	None	*Videotape Modeling: a Method of Parent Education* [294]	Group behavioral parent training for conduct problems

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Table 4 (*continued*)

Type of treatment [reference]	No. of treatments	Mean age (y)	% Boys	Ethnicity	Clinically referred	Sample diagnosed	Treatment manual [reference]	Description
[72]		5	71	—	No	None	*Videotape Modeling: a Method of Parent Education* [294]	Individual behavioral parent training for conduct problems
[299]		5	69	—	No	None	*Parents and Children: a 10 Program Videotape Parent-Training Series with Manuals* [300]	Group behavioral parent training and discussion for conduct -problems
[299]		5	69	—	No	None	*Parents and Children: a 10 Program Videotape Parent-Training Series with* [300]	Group behavioral parent training for conduct problems
[299]		5	69	—	No	None	*Parents and Children: a 10 Program Videotape Parent-Training Series* [300]	Individual behavioral parent training for conduct problems
[301]		5	79	—	—	None	*Parents and Children: a 10 Program Videotape Parent-Training Series* [300]	Individual behavioral parent training for conduct problems
[301]		5	79	—	—	None	*Parents and Children: a 10 Program Videotape Parent-Training Series* [300]	Individual behavioral parent training and therapist consultation for conduct problems
[302]		5	72	—	No	None	*Parents and Children: a 10 Program Videotape Parent-Training Series* [300]	Behavioral parent training for conduct problems
[83]		6	74	86% Caucasian 14% other	—	All	*Parents And Children: A 10 Program Videotape Parent-Training Series* [300]	Behavioral parent training for ODD and CD

Adlerian parent training	1							
[303]		9	—	—	No	None	*Encouraging Children to Learn: the Encouragement Process* [304] *Children the Challenge* [305]	Adlerian parent training for conduct problems
Teacher-focused treatments	5							
Behavioral teacher training	4							
[306]		10	100	58% Caucasian 42% African American	No	None	—	Contingency contracting for conduct problems
[74]		8	—	—	No	None	Unnamed manual	Teacher consultation (PhD treatment team) for conduct problems
[74]		8	—	—	No	None	Unnamed manual	Teacher consultation (PhD/BA treatment team) for conduct problems
[61]		9	—	100% Lebanese	No	None	—	Teacher consultation for conduct problems
Adlerian counseling with teacher	1							
[303]		9	—	—	No	None	*Encouraging Children to Learn: the Encouragement Process* [304] *Children the Challenge* [305]	Adlerian counseling with teacher for conduct problems

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Table 4 (*continued*)

Type of treatment [reference]	No. of treatments	Mean age (y)	% Boys	Ethnicity	Clinically referred	Sample diagnosed	Treatment manual [reference]	Description
Family-focused treatments	15							
Behavioral family therapy	14							
[75]		15	44	—	Yes	None	*Functional Family Therapy (U)*	Behavioral family therapy for delinquency
[307]		9	79	—	No	All	*Reciprocal Skills Training (U)*	Reciprocal skills training for ODD (hospital setting)
[307]		9	79	—	No	All	*Reciprocal Skills Training (U)*	Reciprocal skills training for ODD (clinic setting)
[308]		5	80	80% Caucasian 20% other	Yes	All	*Parent–Child Interaction Therapy: Procedural Manual (U)*	PCIT for ODD
[288]		12	81	—	Yes	None	—	Communication skills problem solving (child present) for conduct problems
[288]		12	81	—	Yes	None	*A Social Learning Approach to Family Intervention, Vol I: Families with Aggressive Children* [271]	Contingency management (child present) for conduct problems
[309]		6	72	28% Caucasian 31% African American 33% Latino 3% Asian 5% other	No	All	*Helping Children of Battered Women: a Review of Research, Sampling of Programs, and Presentation of Project SUPPORT* [310] *Breaking the Cycle of*	Behavioral family therapy for ODD and CD

						Violence: Helping Families Departing from Battered Women's Shelters [311]	
[81]		4	74	—	Yes	All	*Parent–Child Interaction Therapy* [312]	PCIT for ODD
[313]		13	73	—	Yes	None	—	Group reciprocity training for conduct problems
[313]		7	46	—	Yes	None	—	Individual reciprocity training for conduct problems
[314]		9	100	—	No	None	*Troubled Families: a Treatment Program* [315]	Social learning family therapy for aggressive behavior
[316]		5	81	77% Caucasian 14% African American 9% other	Yes	All	*Parent–Child Interaction Therapy: Procedural Manual (U)*	PCIT for ODD
[80]		6	—	—	Yes	All	*Helping the Non-Compliant Child: a Clinician's Guide to Parent Training* [317]	Behavioral/social learning parent training with child involvement for ODD
[318]		4	91	—	No	None	*Facilitating Parent–Child Interaction: a Two-Stage Training Model* [79]	PCIT for conduct problems
Systemic family therapy	1							
[319]		15	56	56% Caucasian 42% African American 2% other	Jail	None	—	Family empowerment intervention for delinquency

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Table 4 (*continued*)

Type of treatment [reference]	No. of treatments	Mean age (y)	% Boys	Ethnicity	Clinically referred	Sample diagnosed	Treatment manual [reference]	Description
Multitargeted/ multisystem treatments	18							
Youth and parent sessions	3							
[82]		10	76	75% Caucasian 25% African American	Yes	Some	*Problem-Solving Skills Training (U)* *Parent Management Training (U)*	Child PSST, behavioral parent management training, and usual inpatient for conduct problems
[320]		7	46	—	Yes	None	*Helping the Noncompliant Child* [317]	Child social problem solving and behavioral parent training for conduct problems
[83]		6	74	86% Caucasian 14% other	—	All	*Parents and Children: a 10 Program Videotape Parent Training Series With Manuals* [300] *Dinosaur Social Skills and Problem Solving Training Manual (U)*	Child social skills and behavioral parent training for ODD and CD
Youth, parent, and family sessions	2							
[321]		10	100	15% Caucasian 59% African American 4% biracial 22% other	Yes	Some	*Fire Safety Education (U)*	Fire safety education for fire-setting

[321]		10	100	15% Caucasian	Yes	Some	*Cognitive-Behavioral Treatment (U)*	CBT with child, parent, and family for fire-setting
Youth and teacher sessions	1							
[61]		9	—	100% Lebanese	No	None	—	Child counseling and teacher consultation for conduct problems
Family and teacher sessions	2							
[322]		13	60	57% Caucasian 43% African American	No	None	—	Behavioral contracting with family and school for predelinquent behavior
[323]		13	67	66% Caucasian 34% African American	No	None	*Behavioral Modification for the Educational Technologist* [324]	Behavioral contracting with family and school for predelinquent behavior
Youth, parent, family, and teacher sessions	10							
[325]		14	100	63% Caucasian 37% African American	Jail	None	*Multisystemic Treatment* [326]	MST for sexual offenders
[84]		15	100	85% Caucasian 6% African American 6% Latino 3% Native American	Yes	None	*Family Connections: Treatment Foster Care for Adolescents with Delinquency* [327]	Treatment foster care for delinquency
[328]		15	67	67% Caucasian 33% other	Yes	None	—	Multifocus group plus advocacy in home, school, and work for delinquency
[329] (Family and Neighborhood Services Project)		15	72	26% Caucasian 74% African American	No	None	*Multisystemic Treatment* [326]	MST for delinquency

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Table 4 (*continued*)

Type of treatment [reference]	No. of treatments	Mean age (y)	% Boys	Ethnicity	Clinically referred	Sample diagnosed	Treatment manual [reference]	Description
[329] (Missouri Delinquency Project)		14	67	70% Caucasian 30% African American	Yes	None	*Multisystemic Treatment* [326]	MST for delinquency
[330]		15	77	42% Caucasian 56% African American 2% Latino	No	None	*Multisystemic Treatment* [326]	MST for delinquency
[331]		15	82	19% Caucasian 81% African American	Yes	None	*Multisystemic Treatment* [85]	MST for delinquency
[332]		15	68	70% Caucasian 30% African American	Yes	None	*Multisystemic Treatment* [326]	MST for delinquency
[333]		6	100	—	No	None	*Delinquency Prevention Program (U)*	Delinquency prevention program for conduct problems
[334]		15	82	22% Caucasian 78% African American	Yes	None	*Multisystemic Family Preservation (U)*	Multisystemic family preservation for delinquency

Abbreviations: CD, conduct disorder; MST, mutisystemic therapy; ODD, oppositional defiant disorder; PCIT, parent–child interaction therapy; PSST, problem-solving skills training; RET, rational emotive therapy; Triple P, positive parenting program; *U*, unpublished manual; —, not reported.

Step 4. I need to make a choice. In the fourth step, children use the results of their consequential pro-and-con thinking in step 3 to select the solution that seems most promising.

Step 5. I did a good job (or) Oh, I made a mistake. The fifth step is self-evaluation. Children learn to assess whether they followed the problem-solving process correctly and whether the solution they chose was the best. If not, then they begin the problem solving process again.

Children first learn to use these steps in simple games like checkers and Connect Four; over time, the skills are applied to more and more lifelike problems including social conflicts of the type that have caused problems in the past. In the usual format, the therapist presents a problem, uses modeling to illustrate how the problem-solving steps can be applied, and then role plays with the child the process of trying out the solution that was selected. Alternately, the child goes through the steps, with the therapist prompting appropriate problem-solving behavior and giving the child concrete feedback with extensive use of reinforcement (eg, applauding, "high fives," tokens that have purchasing power). A critical aspect of the program is its use of practice assignments called supersolvers, in which the youth is expected to apply the problem-solving skills to real situations outside the therapy office. These supersolver assignments become increasingly challenging over time, eventually zeroing in on precisely the problem areas that were central to the child's referral. Initially, supersolvers are tackled by the child with guidance from the therapist; then, parents are brought in to play guiding roles and to reinforce their children's performance. By the end of treatment, children are rewarded for completing real-life supersolvers on their own.

Social skills training

Training young people in social skills can be directed to an array of different goals. One of these goals, reflected in the work of Lochman et al [65], is to improve the social standing of children who are rejected by peers. In the Lochman et al [65] program, which proved helpful to aggressive (but not non-aggressive) rejected third-graders, four intervention components were covered in 34 group sessions of about 30 minutes each. One component—social problem solving—resembled Kazdin's Problem-Solving Skills Training (described earlier). A second component—positive play—focused on skills relevant to maintaining harmonious relationships with peers in play and elsewhere (eg, maintaining eye contact, using good body language, negotiating and compromising, and responding appropriately to rejection by others). The third component was group entry skills training, whereby exercises and group discussion were used to teach skills in sizing up the climate and rules of a group one wants to join and fitting one's style of group entry into the ongoing play and activity of the group. The fourth component—coping with angry feelings—encouraged children to identify the problem situations that most often lead to angry feelings and to identify

strategies for thinking in different ways about those situations and inhibiting impulsively aggressive reactions.

Social skills training in other forms has been used to target somewhat different problems and, sometimes, in cultures very different from our own. For example, Ison [66] achieved good reductions in aggressive and impulsive behavior in Argentinian 8- to 12-year-old boys diagnosed with conduct disorder using a multiskill training program. Across 14 30-minute sessions, the boys were taught skills in giving and receiving compliments, registering concerns and complaints in appropriate ways, apologizing, saying no in appropriate ways, asking favors, understanding others' behavior, asking others to change their behavior, conducting a conversation, showing empathy, using nonverbal social skills, interacting with adults, making decisions, and working cooperatively.

Youth-focused relaxation training

We identified two studies in which relaxation training led to significant reductions in conduct problems. In one, Schlichter and Horan [67] used 10 hour-long individual sessions with a therapist to reduce anger and aggression in institutionalized delinquent boys. This program places a special emphasis on reducing angry arousal in interpersonal conflict. Each youth creates an anger hierarchy, ranking upsetting events from lowest to highest on their "makes me angry" list. The hierarchy is used to construct role plays in which boys practice relaxation and self-calming in the face of provocations. Methods include counting backward at the first exposure until feeling calmer, using traditional relaxation training methods (see earlier text), and imagining pleasant scenes to make the emotional tenor more positive. The program also includes "stress inoculation"—role plays of provocation designed to hone calming skills. Initially, the youth plays the role of provoker as the therapist models self-calming; then the tables are turned and the youth copes with provocation, with coaching and feedback from the therapist. Over time, the role plays work their way up the anger hierarchy to the most potent anger triggers.

Because the Schlichter-Horan program uses relaxation embedded within other procedures (eg, role play), one might question whether relaxation training alone could have beneficial effects on conduct problems. One investigator addressed this question. Oldfield [68] achieved a marked reduction in acting-out incidents among disruptive fourth through sixth graders using only 1.5 hours of individual relaxation instruction and practice (including posture, breathing, and meditation procedures as described in Benson [53]) plus instructions to practice the procedures for 15 minutes per night.

Youth-focused psychodynamic therapy

As Table 4 shows, two studies have supported psychodynamic approaches with conduct problems. Earlier, we discussed the Jesness [63] study of adjudicated boys in the California Youth Authority, focusing on the operant procedures

employed in one of the treatment programs there. In the same study, however, Jesness [63] tested a very different program, one based on "the psychodynamic principles and group therapy methods of transactional analysis." Adolescent offenders in this program were given a primer in transactional analysis, and their counselors conducted a life script interview with them, culminating in a mutually agreeable treatment contract. Each boy was asked to describe aloud ways in which he wanted to be different, and counselors were instructed not to impose any expectations other than those the boys set for themselves. Counselors, however, made it clear that they would only work with the boys on self-enhancing and socially desirable goals. These goals and transactional analysis principles formed much of the content of various group sessions held during each week and of daily life in class and the living areas. Although boys in this program clearly had a different experience than boys in the operant program described previously, both groups showed significant benefit on behavioral and psychologic measures relative to comparison groups in the California Youth Authority. The benefits were evident while the boys were in their programs and at later follow-up assessments that examined time on parole and time in the community (versus in confinement) during the 2 years after discharge.

In a very different context, Shechtman and Ben-David [69] showed that individual and group psychodynamic psychotherapy were associated with reduced aggression in Jewish, Arab, and Druze first through ninth graders in Israel who had been rated verbally and physically aggressive by their teachers. The 10 45-minute sessions began with a story, poem, or film depicting events and emotions leading to aggressive behavior. After each of these, discussion focused on the feelings of the main characters and on the dynamics that led to aggressive reactions. Youngsters were encouraged to share personal experiences related to what they had just seen or heard, and counselors invited the youths to gain insight into their own feelings and behavior. The authors stress that although the sessions had specific topics, "the treatment interventions were process-oriented and considered as counseling and psychotherapeutic rather than psychoeducational." Although this form of intervention might appear likely to work best within individual therapy, individual and group formats led to more aggression reduction than the waitlist control, and the individual and group formats did not differ from one another in impact.

Youth-focused play therapy

One study tested play therapy. Bleck and Bleck [70] showed that a series of 10 play-based group sessions for disruptive third graders was associated with reduced levels of disrespect and defiance and increased scores on a self-esteem inventory. In the first few sessions, group leaders sought to increase group trust, cohesion, and awareness of self and others through exercises in which children made clay models of something important to them, drew animals to which they felt similar, and listed and role-played feeling words. In the middle sessions, activities and discussion focused on disruptive school behavior, its consequences,

and the feelings children experienced as a result; examples of the activities used here included painting pictures of a time when children were in a fight and a time when a teacher was angry with them and acting out a school problem situation using puppet play. The final cluster of sessions focused on cooperation, sharing, and feedback from peer to peer; exercises included trust building, in which blindfolded children assembled a jigsaw puzzle with the help of nonblindfolded peer partners, and nametag feedback, in which children listed positive things about each group member. Each exercise was followed by a discussion of each child's feelings.

Behavioral parent training

As Table 4 shows, parent-focused intervention is the most extensively tested and supported form of treatment for youth conduct problems and disorders, and nearly all of the studies involved have tested behavioral parent training. Thus, significant space is devoted to discussing this approach. As the table also shows, a substantial number of the treatments that have been tested were inspired, in full or in part, by intervention procedures developed by Patterson and colleagues at the Oregon Social Learning Center (eg, see Patterson et al [71]). We illustrate behavioral parent training by describing some of the main elements of the Patterson approach and another method in which video vignettes are used to stimulate discussion and learning by parents who meet in groups.

The Patterson approach: Parent Management Training-Oregon

Parent Management Training-Oregon (PMTO) was developed by Patterson and colleagues through a series of pilot and research efforts in the late 1960s and early 1970s with parents of children aged 3 to 13 years. PMTO involves at least three components: (1) parents learn basic behavioral principles relevant to child rearing; (2) parents learn how to define, track, and record rates of the antisocial and prosocial behaviors they want to target; (3) parents are helped to design, role play, carry out, and refine behavior modification programs while continuing to record rates of target behavior to assess intervention effects. The procedures originally were used with individual parents and couples, one at a time, but to increase efficiency, some group-administered procedures also have been developed.

A core idea conveyed to most parents is that children generally act the way they do because they have learned to act that way; much of this learning has involved identifying what behaviors are rewarded in their environment and then doing more of those behaviors. As an example, most children show some kind and generous behavior, but when that behavior is not noticed, praised, or rewarded, it will decline in frequency. Most children also show some aggressive, antisocial behavior at some times; when that behavior is rewarded, even if only by increased attention from the parent, it may increase in frequency. Parent-to-child eye contact, a raised voice, complaints about the child's behavior—these may not seem like rewards at first, but against a backdrop of being ignored, even negative attention may be reinforcing. To illustrate this principle and how it can

be used to good effect, parents are asked to (1) identify one or two specific child behaviors that they want to target for change, (2) record the frequency of the behaviors at home, and (3) make changes in their own behavior that will foster changes in child behavior.

Two sets of procedures are used: one to reduce the strength of unwanted child behaviors and the other to increase the strength of desired behaviors. To reduce the frequency of unwanted behaviors, parents learn ways of making those behaviors less rewarding. One example is time-out, in which the child is withdrawn from opportunities for reward. Parents role play with the therapist the skills of calmly sending their child to time-out, with no discussion and no debate before, during, or after, and of calmly increasing the allotted time if the child resists or misbehaves while in time-out. Phone contact with the therapist may be used to help parents solve problems and refine techniques on the spot. To increase the frequency of desired behaviors, parents learn to increase the rewarding consequences that follow such behaviors. In some cases, social reinforcement in the form of praise may help. For some children, however, praise may not be sufficient, suggesting a need for token or point systems that lead to tangible rewards, administered by parents. A common procedure is to develop a contract to which the parents and child agree. The contract specifies the behavior for which the child is to be rewarded, how many points (or stars, tokens, and so forth) she or he is to receive each time that behavior happens, what rewards the points/starts/tokens can be exchanged for, and what the exchange rate is (ie, how many points are required for each reward). The rewards may include a special dessert, extra TV time, or even a little money. Contract terms also can be stretched, with bigger rewards for more substantial good behavior (eg, a bowling or fishing trip or a ''kids' menu night'' in which the child chooses the foods the family will have for dinner).

PMTO also stresses the need to reduce what are called coercive exchanges between parents and children. For example, some parents speak to their child in ways that lead to hurt feelings, resentment, and escalation in conflict, whereas milder language or a gentler approach might lead to very different results. Instead of saying, ''Heather, turn off that stupid music, and get your d— homework done!'' the parent calmly could say, ''Honey, it's time to turn off the music now and do your homework.'' Speaking of homework, because many youth problems extend to school and other out-of-home settings, PMTO often includes methods of extending intervention to such settings. In school, if the teacher is willing, a school card can be used to provide a simple daily report to parents on issues such as (1) Was all the day's homework turned in? (yes/no); (2) Did the child arrive in class on time? (yes/no); (3) Did the child stay on task in class? (rate 0, 1, or 2); and (4) Did the child have positive interactions with peers? (rate 0, 1, or 2). Feedback from the school card can be incorporated into the contract and point system used at home.

Webster-Stratton's video-guided parent group approach

As Table 4 shows, a remarkably well-tested intervention is the video-guided program through which Webster-Stratton (eg, see Webster-Stratton [72]) and

colleagues convey behavioral skills to parents of 3- and 4-year-olds. In the Incredible Years BASIC parent training program, groups of 10 to 14 parents meet with a therapist for up to 14 weekly sessions lasting about 2 hours. Parents view a series of 1- to 2-minute video vignettes that show parents dealing with their children in a variety of situations, sometimes successfully, sometimes not. These videos are used to stimulate discussion of basic behavioral principles. Parents practice the principles in homework assignments. Over the series of sessions, four themes are covered: constructive use of play, using praise and reward effectively, setting and enforcing limits, and handling misbehavior.

The 1- to 2-minute video vignettes used in the group sessions show a mixture of successful and unsuccessful parent–child interactions, each designed to prompt a lively discussion by parents. The videos and discussions are complemented by role plays in which parents and the therapist try out various parenting strategies. Four broad themes are addressed over the course of the program. One of these is play interaction. Here, the emphasis is on ways parents can use their interactions with their children during play to strengthen the parent–child relationship and promote development of important skills in the child, such as creativity, self-esteem, harmony in interpersonal interactions, problem solving skills, and even language development. A second emphasis is on ways parents can use praise and tangible rewards to enhance child growth and adjustment. Parents are taught to use praise and reward in discriminating and planful ways, identifying the specific child behaviors that they want to see more of (eg, sharing, complying with requests, being kind to someone) and focusing positive consequences on those specific behaviors.

A third theme is effective limit setting, which parents are cautioned to use only for issues that really matter. Having too many rules and commands makes it difficult for children to keep track and hard for parents to follow through consistently. Videotapes illustrate the problem by showing parents giving unnecessary commands during such activities as board games, coloring, and cookie baking (ie, commands about child behavior that do not matter in the least, such as where to put the cookies on the cookie sheet). Other vignettes focus on the need to give the child alternatives to prohibited actions, rather than just saying "No." In one scene, for instance, a mother is reading while her son plays with rubber puppets. Suddenly he bites mother on the arm with the coyote puppet. The following is what happens next:

> Mother says, "No, I don't want the coyote to eat me, let the coyote eat some other animals."
>
> (Mother turns back to her magazine and reads; the boy takes the puppets and starts biting puppet animals.) (p. 23 [73])

In this vignette, mother gets credit for clarity in limit setting and for suggesting a behavioral alternative rather than simply saying "No"; but she rewarded the prohibited behavior with attention, and she ignored her son when he obeyed her. Thus, the vignette shows both pros and cons, which become grist for the mill of parents and therapist in their postvideo discussion. Another set of video clips

illustrates ways to help children accept limits. One approach is to follow a prohibition with distraction, as in, "OK, turn off the TV. . .and let's see what other toys there are here." Other vignettes illustrate ways to avoid arguments about rules and commands; examples include involving the child in joint problem solving (where to park the bike when we put it away) and simply ignoring a child's inappropriate or combative responses.

The fourth component is handing misbehavior. As an example, the following is one vignette in which 12-year-old Derek refuses to get with the program, but his father clearly knows what to do:

> The scene: Derek stubbornly refuses to go to Time Out.
> Father: Derek, go to Time Out.
> Derek: (angrily) You and your dumb old Time Outs. I'm not going!
> Father: (calmly) That's six minutes.
> Derek: (sarcastically) Oh. . .. where did *you* learn how to count?
> Father: (calmly) That's seven minutes.
> Derek: (continues to protest) I don't wanna go. I don't have to!
> Father: Eight minutes. (The father picks up the newspaper and begins to read it. A few minutes later he looks at his watch.) That's 10 minutes now, Derek. If you don't go to Time Out right now, you're going to lose your TV privileges tomorrow, and that means you're not going to be able to watch the big game.
> Derek: (protests) That's not fair.
> Father: (calmly) Forget the game tomorrow. You've just lost your TV privileges.
> Derek: (starts to go to Time Out) But I was just going to go.
>
> (p. 19–20 [73])

Here, father does all the right things, using time out and backing it up with loss of privileges for arguing. He stays calm and matter-of-fact throughout the interaction, even when Derek insults him ("Where did *you* learn how to count"?). The father's calm demeanor deprives Derek of the reinforcement of emotional attention, prevents escalation of Derek's noncompliance into an argument, and adds quiet power to Dad's parental authority.

The videos are important, but they are only one element of the Webster-Stratton approach, which emphasizes the therapist's relationship to individual parents and the mutual support parents can provide to one another. Therapists work to promote communication with individual parents (eg, by giving each parent a folder in which the therapist places personal written notes each week, including feedback on the previous week's home assignment and praise for achieving a special milestone or accomplishment). Therapists also try to call each parent every other week to ask how things are going and to nurture the relationship. In facilitating the group meetings, therapists adopt the role of a collaborator with parents rather than the "expert" who tells parents what to do. Thus, after the group views a video vignette, the therapist asks open-ended questions, actively solicits parents' ideas, and tries to facilitate group problem solving. The vignettes, discussions, and role plays in group meetings are

complemented by parent handouts and by assignments in which parents try the procedures at home and track the results. Parent groups discuss these assignments and troubleshoot any problems encountered at home. This discussion is intended to help parents fine-tune their learning and to help therapists track whether parents have mastered the skills.

Teacher-focused behavioral training and consultation

Some of the behavioral principles emphasized in the Patterson and Webster-Stratton programs and in other interventions noted previously have been incorporated into teacher-focused interventions. For example, the study in Lebanon by Moracco and Kazandkian [61], described earlier, included one condition in which a behaviorally trained counselor devoted four 30-minute sessions to teaching operant principles to teachers and role playing operant procedures with them. The themes covered included the use of praise, selective ignoring, modeling, contingency management, and time out. The teachers then implemented these procedures with disruptive third graders, which resulted in slightly (although nonsignificantly) larger improvements in child behavior than when the operant procedures were administered directly by the behaviorally trained counselor.

Using a more intensive approach, Kent and O'Leary [74] provided an average of about 14 hours of expert behavioral consultation per child to teachers who worked with ''unsocialized aggressive'' 7- to 9-year-olds. The hours were devoted to a combination of behavioral training (in the use of praise, soft reprimands, and a daily school report to parents), plans for tutoring children with special deficits, and in-school observation and feedback to teachers. Children in this teacher consultation condition showed significantly greater behavioral improvements than a no-treatment control group on teacher ratings and on 6 hours of direct behavioral observations in the classroom. In fact, the direct observations showed that although child behavior in the teacher consultation condition improved over the course of the study, the behavior of the control group children got worse.

Behavioral family therapy

Behavioral principles also have been used to inform interventions in which multiple members of a family meet together with a therapist. As one example, Alexander and Parsons [75] used what they called short-term behavioral family intervention with families of delinquent 13- to 16-year-old boys and girls referred by juvenile court following offenses. The family intervention was Patterson-like (see previous discussion); it even used a modification of Patterson and Gullion's [76] behavioral book, *Living with Children: New Methods for Parents and Teachers*. In addition, the family program included family sessions designed to improve communication, increase family reciprocity, and encourage negotiation

among family members, with each member receiving a privilege for each responsibility assumed.

Alexander and Parsons [75] measured outcomes by assessing patterns of family interaction (eg, balanced talk time among family members) and by examining juvenile court records to assess recidivism of the adolescents. Both sets of measures showed effects that favored the behavioral parent training group over alternative treatments. The comparison was particularly useful because the behavioral family program was contrasted with two alternative treatments that were reportedly representative of the usual interventions provided in the community.

In an interesting follow-up to this study, Klein et al [77] studied whether the different treatment conditions were related to rates of subsequent court referral among the siblings of targeted youth. The idea was that if treatment improves parenting skill and family functioning, then the beneficial effects might spread beyond the single youth in the family who had originally been referred. In examining juvenile court records 2.5 to 3.5 years beyond the study interventions, Klein et al [77] found evidence of sibling benefit in the behavioral parent training group. Only 20% of the families in this treatment condition had subsequent court contact for siblings compared with 40% or more in each of the comparison groups. The short-term behavioral family intervention tested by Alexander and Parsons [75] has now evolved sufficiently to be given its own name: functional family therapy [78].

To round out the picture of the forms that behavioral treatment in a family context can take, we close with a description of parent–child interaction treatments (ie, interventions that place parents and young children in the same room and have them interact, guided by coaching from a therapist). The general approach grows out of the work of Hanf and Kling [79] at the University of Oregon Medical School, and it is illustrated in Table 4 by Wells and Egan [80] and by several studies that used parent–child interaction therapy [81]. Parent-child interaction treatments are used primarily for disruptive and oppositional children in the preschool through early elementary school age range. Parent and child interact in a play room that is observed by the therapist from behind a one-way glass or by way of videocamera. The therapist coaches the parent using a bug-in-the-ear device (in a low-tech version, the therapist coaches in a soft voice from a corner of the play room). In the sessions, the therapist first may model a particular skill for the parent, then role play the skill with the parent, and then bring the child into the room so that the parent can try the skill with the child while the therapist coaches.

The nature of the interactions shifts from time to time, with some child-directed interactions in which the child selects the activities and the parent practices attending closely, reinforcing desirable child behavior through labeled praise, hugs, and so forth and selectively ignoring undesirable behavior. Other interactions are set up to be explicitly parent directed, with the parent selecting activities and setting rules for the child to follow; in these interactions, the therapist coaches parents to use two kinds of skills: (1) giving clear instructions (eg, not vague ones such as ‘‘Be a good boy’’) and (2) providing appropriate

consequences for compliance and noncompliance. To illustrate clear instructions, consider the parental instruction, "Let's clean up this mess." "Let's" implies a joint project and, thus, could be misleading if the parent wants the child to clean up by herself. Also, "clean up this mess" may not clearly convey the specific activities the parent wants. A clearer instruction might be, "Please put all your toys in this box." Parents are coached to make it easy for children to obey by keeping instructions specific and direct, focusing on one behavior at a time, and waiting 5 seconds or so after instructions to give the child time to comply. When instructions follow these guidelines, most children obey most of the time. When they do not, parents are taught procedures for addressing noncompliance (eg, they practice the best way to give the child a time-out).

Child-directed and parent-directed interactions are seen as serving complementary goals. The child-directed interactions are intended to increase warmth, strengthen the parent–child bond, and boost the child's motivation to cooperate with and please the parent. Parent-directed interactions are designed to help the parent learn to give clear and direct instructions and help the child learn to obey when those instructions are given.

Multiple target/multisystem treatments

The final section of Table 4 includes multiple target/multisystem treatments. A number of different combination treatments fit this category; in some of these, a treatment for youths is added to a treatment for parents. In one example, Kazdin et al [82] combined their Problem-Solving Skills Training for disruptive youth (see earlier discussion) with parent management training based partly on the Patterson approach (see earler discussion). In another example, Webster-Stratton and Hammond [83] combined their video-guided parent training program with their child-focused Dinosaur Social Skills and Problem-Solving Training program.

Other approaches are broader in their outreach to multiple targets. For example, Chamberlain and Reid's [84] Treatment Foster Care program for delinquent youth combines interventions for youth, foster parents, family, and teacher. And multisystemic therapy (eg, see Henggeler et al [85]) treats delinquent youths by reaching out to multiple layers of their social environment, often including siblings, parents, extended family, neighbors and neighborhood groups, peers, school, church, and juvenile justice personnel. The Treatment Foster Care program and multisystemic therapy are described by Farmer and Dorsey elsewhere in this issue.

Summary

In this article, treatments that showed significant effects in studies published over a period of 4 decades were identified. Coverage focused on problems and disorders in four broad clusters: anxiety, depression, ADHD, and conduct. Across the 298 studies, 326 different treatment programs were identified that showed significant benefit relative to a control group or alternate treatment group. The

studies and the treatment programs were not evenly distributed across the four problem clusters. In the depression domain, only 23 studies and 26 beneficial treatments were identified; the scarcity of such studies and treatments is due partly to a late start (no youth depression trial was published until 1986), which in turn may be partly attributable to the fact that for many years, depression in children was considered an impossibility [86]. By contrast, anxiety (94 articles, 111 beneficial treatments) and conduct problems (135 articles, 136 treatments) have been long-standing foci for treatment researchers, with considerable payoff in terms of trials and treatments.

Diversity of the treatments

The identified treatments were not only numerous but also diverse, crossing continental, national, cultural, and ethnic boundaries. The treatments also spanned a range of targets, including youths seen individually and in groups; parents seen individually, in couples, and in groups; teachers alone and with parents; whole families and parent–child combinations; and multiple systems encompassing up to six intervention targets. Amid all this diversity, certain targets and modalities were clear favorites in certain domains. Among anxiety and depression treatments, youth-focused treatments predominated, particularly those following CBT principles. Somewhat surprisingly, this also was found to be true of ADHD treatment; this prominence of CBT in randomized trials of ADHD treatment stands in contrast to a previous review [21] that included numerous within-group study designs and identified behavioral parent training and behavioral procedures in the classroom as the dominant forms of evidence-based intervention. Finally, it was found that behavioral parent training was the most common form of empirically supported treatment for conduct problems, with the Patterson PMTO approach and Webster-Stratton's video-guided approach being particularly influential.

There also was some diversity in the treatment models employed. Although youth psychotherapy may have begun with psychoanalysis, as suggested at the outset of this article, the four tables show that behavioral treatments, including CBT, now dominate the lists of supported treatments. The lists, however, also include some distinctly nonbehavioral interventions. Client-centered/nondirective therapy and play therapy showed some empiric support in studies of anxiety treatment. Interpersonal therapy showed beneficial effects on depression in adolescents. Play therapy, psychodynamic therapy, group art therapy, and Adlerian counseling with teachers showed positive effects in treatment of conduct problems. These findings suggest that there may be room and potential for innovative treatments for each of the four problem clusters that are not based primarily on behavioral principles.

Support for simple, previously panned, and seemingly quirky treatments

There also was some support from some remarkably simple interventions—some that previously have been panned by various reviewers and still others

that initially may seem quirky. On the simple front, relaxation training emerged as a versatile approach that showed at least some significant treatment effects in all of the four problem domains, and large muscle exercise proved helpful for ADHD. In the previously panned category, support was found in randomized trials for self-hypnosis and EMDR for anxiety and for biofeedback treatment for ADHD. Into the seemingly quirky category, we would place the interactive metronome treatment in which youths diagnosed with ADHD get into synch with the metronome beat and the ''self-modeling'' treatment for depression in which youngsters make a videotape of themselves looking nondepressed and then simply watch the video during a series of sessions.

Issues for the future

Looking to the future, based on what we have seen in the past studies reviewed here, we note several concerns that warrant attention. First, some potentially important lines of work on promising treatments had to be excluded from our review because of unusual experimental design or case assignment procedures that fall short of true random assignment (eg, ''alternating'' assignment to different groups). Other studies had to be excluded because the reporting was unclear; sometimes coders simply could not determine who was in the room when treatment was delivered, what treatment procedures were employed, what target problem was being addressed by the treatment, whether a treatment manual was used, whether group assignment was random or not, or even whether the treatment showed significant effects. Excluding or obscuring such critical information about study procedures and findings has unfortunate consequences both for the study authors and for the field. More consistent reporting requirements by journals could help address this problem.

Another useful objective, in our view, is improving the relevance of treatment research to clinical practice. One step in this direction might be simple replication. An overwhelming majority of the treatments we reviewed were tested only once and never used again. Evidence of robust effects may be needed to maximize appeal to the practice community. An additional concern is that much of the research to date shows rather modest clinical validity. We found few studies that included (1) samples of youths who had been referred through usual community channels, (2) treatment that was performed by practicing clinician therapists, and (3) interventions delivered in the context of clinical practice and service settings. Information on effectiveness with referred youths treated by clinicians in practice could increase the clinical value of research and the disseminability of treatments. A further challenge is symbolized by the number of blank entries in the ''Treatment manual'' column of Tables 1 through 4; most of the studies testing a treatment did not include a protocol that could be obtained by others who wish to try or test the treatment. This and other obstacles to dissemination warrant attention in the future if clinical research is to inform and affect clinical practice with youths and families.

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References

[1] Freud S. Analysis of phobia in a five year-old boy. In: Strachey A, editor. Standard editions of the complete psychological works of Sigmund Freud, vol. 10. London: Hogarth Press; 1955. p. 3–148.
[2] Jones MC. A laboratory study of fear: the case of Peter. Pedagogical Seminary 1924;31:308–15.
[3] Kazdin AE. Psychotherapy for children and adolescent: directions for research and practice. Oxford, UK: Oxford University Press; 2000.
[4] Weisz JR. Psychotherapy for children and adolescents: evidence-based treatments and case examples. Cambridge, UK: Cambridge University Press; 2004.
[5] Eysenck HJ. The effects of psychotherapy: an evaluation. J Consult Psychol 1952;16:319–24.
[6] Levitt EE. The results of psychotherapy with children: an evaluation. J Consult Clin Psychol 1957;21:189–96.
[7] Levitt EE. Psychotherapy with children: a further evaluation. Behav Res Ther 1963;60:326–9.
[8] Durlak JA, Wells AM, Cotten JK, Johnson S. Analysis of selected methodological issues in child psychotherapy research. J Clin Child Psychol 1995;24(2):141–8.
[9] Shirk SR, Russell RL. Change processes in child psychotherapy. New York: The Guilford Press; 1996.
[10] Casey RJ, Berman JS. The outcome of psychotherapy with children. Psychol Bull 1985;98(2): 388–400.
[11] Kazdin AE, Bass D, Ayers WA, Rodgers A. Empirical and clinical focus of child and adolescent psychotherapy research. J Consult Clin Psychol 1990;58(6):729–40.
[12] Weisz JR, Weiss B, Alicke MD, Klotz ML. Effectiveness of psychotherapy with children and adolescents: a meta-analysis for clinicians. J Consult Clin Psychol 1987;55(4):542–9.
[13] Weisz JR, Weiss B, Han SS, Granger DA, Morton T. Effects of psychotherapy with children and adolescents revisited: a meta-analysis of treatment outcome studies. Psychol Bull 1995; 117(3):450–68.
[14] Jensen AL, Weisz JR. Assessing match and mismatch between practitioner-generated and standardized interview-generated diagnoses for clinic-referred children and adolescents. J Consult Clin Psychol 2002;70(1):158–68.
[15] Compton SN, Burns BJ, Egger HL, Robertson E. Review of the evidence base for treatment of childhood psychopathology: internalizing disorders. J Consult Clin Psychol 2002;70(6): 1240–66.
[16] Durlak JA, Fuhrman T, Lampman C. Effectiveness of cognitive-behavior therapy for maladapting children: a meta-analysis. Psychol Bull 1991;110(2):204–14.
[17] Dush DM, Hirt ML, Schroeder HE. Self-statement modification in the treatment of child behavior disorders: a meta-analysis. Psychol Bull 1989;106(1):97–106.
[18] Farmer EMZ, Compton SN, Burns BJ, Robertson E. Review of the evidence base for treatment of childhood psychopathology: externalizing disorders. J Consult Clin Psychol 2002;70(6): 1267–302.
[19] Prout HT, DeMartino RA. A meta-analysis of school-based studies of psychotherapy. J Sch Psychol 1986;24(3):285–92.
[20] McLeod BD, Weisz JR. Using dissertations to examine potential bias in child and adolescent clinical trials. J Consult Clin Psychol 2004;72:235–51.

[21] Pelham Jr WE, Wheeler T, Chronis A. Empirically supported psychosocial treatments for attention deficit hyperactivity disorder. J Clin Child Psychol 1998;27(2):190–205.
[22] Murphy CM, Bootzin RR. Active and passive participation in the contact desensitization of snake fear in children. Behavior Therapy 1973;4(2):203–11.
[23] Bandura A, Menlove FL. Factors determining vicarious extinction of avoidance behavior through symbolic modeling. J Pers Soc Psychol 1968;8(2, Pt. 1):99–108.
[24] Ollendick TH, King NJ. Empirically supported treatments for children with phobic and anxiety disorders: current status. J Clin Child Psychol 1998;27(2):156–67.
[25] Ritter B. Effect of contact desensitization on avoidance behavior, fear ratings, and self-evaluative statements. Proceedings of the Annual Convention of the American Psychological Association. 1968;3:527–8.
[26] Laxer RM, Quarter J, Kooman A, Walker K. Systematic desensitization and relaxation of high-test-anxious secondary school students. J Couns Psychol 1969;16(5 Pt. 1):446–51.
[27] Laxer RM, Walker K. Counterconditioning versus relaxation in the desensitization of test anxiety. J Couns Psychol 1970;17(5 Pt. 1):431–6.
[28] Wolpe J. Psychotherapy by reciprocal inhibition. Stanford (CA): Stanford University Press; 1958.
[29] Leitenberg H, Callahan EJ. Reinforced practice and reduction of different kinds of fears in adults. Behav Res Ther 1973;11(1):19–30.
[30] Sheslow DV, Bondy AS, Nelson RO. A comparison of graduated exposure, verbal coping skills, and their combination in the treatment of children's fear of the dark. Child Fam Behav Ther 1982;4(2–3):33–45.
[31] Obler M, Terwilliger RF. Pilot study on the effectiveness of systematic desensitization with neurologically impaired children with phobic disorders. J Consult Clin Psychol 1970;34(3):314–8.
[32] Muris P, Merckelbach H, Holdrinet I, Sijsenaar M. Treating phobic children: effects of EMDR versus exposure. J Consult Clin Psychol 1998;66(1):193–8.
[33] Chemtob CM, Nakashima J, Carlson JG. Brief treatment for elementary school children with disaster-related posttraumatic stress disorder: a field study. J Clin Psychol 2002;58(1):99–112.
[34] Gaudiano BA. Therapy maze can be depressing. Los Angeles Times December 28, 2003.
[35] Beidel DC, Turner SM, Morris TL. Behavioral treatment of childhood social phobia. J Consult Clin Psychol 2000;68(6):1072–80.
[36] Fantuzzo J, Sutton-Smith B, Atkins M, et al. Community-based resilient peer treatment of withdrawn maltreated preschool children. J Consult Clin Psychol 1996;64(6):1377–86.
[37] Warren R, Smith G, Velten E. Rational-emotive therapy and the reduction of interpersonal anxiety in junior high school students. Adolescence 1984;19(76):893–902.
[38] Guerney Jr BG, Flumen AB. Teachers as psychotherapeutic agents for withdrawn children. J Sch Psychol 1970;8(2):107–13.
[39] Gaynor ST, Lawrence PS. Complementing CBT for depressed adolescents with Learning through In Vivo Experience (LIVE): conceptual analysis, treatment description, and feasibility study. Behav Cogn Psychother 2002;30(1):79–101.
[40] Kanfer FH, Karoly P, Newman A. Reduction of children's fear of the dark by competence-related and situational threat-related verbal cues. J Consult Clin Psychol 1975;43(2):251–8.
[41] Kendall PC, Kane M, Howard B, Siqueland L. Cognitive-behavioral therapy for anxious children: treatment manual. Philadelphia (PA): Temple University; 1990.
[42] Deblinger E, Lippman J, Steer R. Sexually abused children suffering posttruamatic stress symptoms: initial treatment outcome findings. Child Maltreat 1996;1(4):310–21.
[43] Barrett PM, Dadds MR, Rapee RM. Family treatment of childhood anxiety: a controlled trial. J Consult Clin Psychol 1996;64(2):333–42.
[44] Lewinsohn PM, Clarke GN, Hops H, Andrews J. Cognitive-behavioral treatment for depressed adolescents. Behav Ther 1990;21(4):385–401.
[45] Mufson L, Weissman MM, Moreau D, Garfinkel R. Efficacy of interpersonal psychotherapy for depressed adolescents. Arch Gen Psychiatry 1999;56(6):573–9.
[46] Brent DA, Holder D, Kolko D, et al. A clinical psychotherapy trial for adolescent depression comparing cognitive, family, and supportive therapy. Arch Gen Psychiatry 1997;54(9):877–85.

[47] Lewinsohn PM. Instructor's manual for course for parents of adolescents enrolled in the Adolescent Coping With Depression course. Eugene (OR): Castalia Press; 1991.
[48] Meichenbaum DH, Goodman J. Study 2. Training impulsive children to talk to themselves: a means of developing self-control. J Abnorm Psychol 1971;77(2):115–26.
[49] Bender NN. Self-verbalization versus tutor verbalization in modifying impulsivity. J Educ Psychol 1976;68(3):347–54.
[50] Kendall PC, Wilcox LE. Cognitive-behavioral treatment for impulsivity: concrete versus conceptual training in non-self-controlled problem children. J Consult Clin Psychol 1980;48(1): 80–91.
[51] Hinshaw SP, Henker B, Whalen CK. Study 1. Self-control in hyperactive boys in anger-inducing situations: effects of cognitive-behavioral training and of methylphenidate. J Abnorm Child Psychol 1984;12(1):55–77.
[52] Redfering DL, Bowman MJ. Effects of a meditative-relaxation exercise on non-attending behaviors of behaviorally disturbed children. J Clin Child Psychol 1981;10(2):126–7.
[53] Benson H. The relaxation response. New York: Morrow; 1975.
[54] Porter SS, Omizo MM. The effects of group relaxation training/large muscle exercise, and parental involvement on attention to task, impulsivity, and locus of control among hyperactive boys. Except Child 1984;31(1):54–64.
[55] Omizo MM, Michael WB. Biofeedback-induced relaxation training and impulsivity, attention to task, and locus of control among hyperactive boys. J Learn Disabil 1982;15(7):414–6.
[56] Rivera E, Omizo MM. The effects of relaxation and biofeedback on attention to task and impulsivity among male hyperactive children. Except Child 1980;27(1):41–51.
[57] Carmody DP, Radvanski DC, Wadhwani S, Sabo MJ, Vergara L. EEG biofeedback training and attention-deficit/hyperactivity disorder in an elementary school setting. J Neurother 2001;4(3): 5–27.
[58] Shaffer RJ, Jacokes LE, Cassily JF, Greenspan SI, Tuchman RF, Stemmer Jr PJ. Effect of Interactive Metronome® training on children with ADHD. Am J Occup Ther 2001;55(2): 155–62.
[59] Barkley RA. Defiant children: a clinician's manual for assessment and parent training. New York: Guilford; 1997.
[60] Autry LB, Langenbach M. Locus of control and self-responsibility for behavior. J Educ Res 1985;79(2):76–84.
[61] Moracco J, Kazandkian A. Effectiveness of behavior counseling and consulting with non-Western elementary school children. Elem Sch Guidance Couns 1977;11:244–51.
[62] Forman SG. A comparison of cognitive training and response cost procedures in modifying aggressive behavior of elementary school children. Behav Ther 1980;11(4):594–600.
[63] Jesness CF. Comparative effectiveness of behavior modification and transactional programs for delinquents. J Consult Clin Psychol 1975;43(6):759–79.
[64] Kazdin AE. Problem-solving skills training and parent management training for conduct disorder. In: Kazdin AE, Weisz JR, editors. Evidence-based psychotherapies for children and adolescents. New York: Guilford; 2003. p. 241–62.
[65] Lochman JE, Coie JD, Underwood MK, Terry R. Study 1. Aggressive and rejected. Effectiveness of a social relations intervention program for aggressive and nonaggressive, rejected children. J Consult Clin Psychol 1993;61(6):1053–8.
[66] Ison MS. Training in social skills: an alternative technique for handling disruptive child behavior. Psychol Rep 2001;88(3):903–11.
[67] Schlichter KJ, Horan JJ. Effects of stress inoculation on the anger and aggression management skills of institutionalized juvenile delinquents. Cognit Ther Res 1981;5(4):359–65.
[68] Oldfield D. The effects of the relaxation response on self-concept and acting out behaviors. Elem Sch Guidance Couns 1986;20(4):255–60.
[69] Shechtman Z, Ben-David M. Individual and group psychotherapy of childhood aggression: a comparison of outcomes and processes. Group Dyn 1999;3(4):263–74.
[70] Bleck RT, Bleck BL. The disruptive child's play group. Elem Sch Guidance Couns 1982;17(2): 137–41.

[71] Patterson GR, Chamberlain P, Reid JB. A comparative evaluation of a parent-training program. Behav Ther 1982;13(5):638–50.
[72] Webster-Stratton C. Randomized trial of two parent-training programs for families with conduct-disordered children. J Consult Clin Psychol 1984;52(4):666–78.
[73] Webster-Stratton C. The Parents and Children Series: a comprehensive course divided into four programs. Seattle (WA): University of Washington Department of Family and Child Nursing; 1989.
[74] Kent RN, O'Leary KD. Treatment of conduct problem children: BA and/or PhD therapists. Behav Ther 1977;8(4):653–8.
[75] Alexander JF, Parsons BV. Short-term behavioral intervention with delinquent families: impact on family process and recidivism. J Abnorm Psychol 1973;81(3):219–25.
[76] Patterson G, Gullion M. Living with children: new methods for parents and teachers. Champaign (IL): Research Press; 1968.
[77] Klein NC, Alexander JF, Parsons BV. Impact of family systems intervention on recidivism and sibling delinquency: a model of primary prevention and program evaluation. J Consult Clin Psychol 1977;45(3):469–74.
[78] Alexander JF, Parsons BV. Functional family therapy: principles and procedures. Monterey (CA): Brooks/Cole; 1982.
[79] Hanf C, Kling J. Facilitating parent-child interaction: a two-stage training model. Portland (OR): University of Oregon Medical School; 1974.
[80] Wells KC, Egan J. Social learning and systems family therapy for childhood oppositional disorder: comparative treatment outcome. Compr Psychiatry 1988;29(2):138–46.
[81] Nixon RDV. Changes in hyperactivity and temperament in behaviourally disturbed preschoolers after parent-child interaction therapy (PCIT). Behav Change 2001;18(3):168–76.
[82] Kazdin AE, Esveldt-Dawson K, French NH, Unis AS. Effects of parent management training and problem-solving skills training combined in the treatment of antisocial child behavior. J Am Acad Child Adolesc Psychiatry 1987;26(3):416–24.
[83] Webster-Stratton C, Hammond M. Treating children with early-onset conduct problems: a comparison of child and parent training interventions. J Consult Clin Psychol 1997;65(1):93–109.
[84] Chamberlain P, Reid JB. Comparison of two community alternative to incarceration for chronic juvenile offenders. J Consult Clin Psychol 1998;66(4):624–33.
[85] Henggeler SW, Schoenwald SK, Borduin CM, Rowland MD, Cunningham PB. Multisystemic treatment of antisocial behavior in children and adolescents. New York: Guilford Press; 1997.
[86] Hammen C, Rudolph K. Childhood depression. In: Mash EJ, Barkley RA, editors. Child psychopathology. New York: Guilford; 1996. p. 153–95.
[87] Bandura A, Grusec JE, Menlove FL. Vicarious extinction of avoidance behavior. J Pers Soc Psychol 1967;5(1):16–23.
[88] Furman W, Rahe DF, Hartup WW. Rehabilitation of socially withdrawn preschool children through mixed-age and same-age socialization. Child Dev 1979;50(4):915–22.
[89] Jakibchuk Z, Smeriglio VL. The influence of symbolic modeling on the social behavior of preschool children with low levels of social responsiveness. Child Dev 1976;47(3):838–41.
[90] Keller MF, Carlson PM. The use of symbolic modeling to promote social skills in preschool children with low levels of social responsiveness. Child Dev 1974;45:912–9.
[91] Klingman A, Malamed BG, Cuthberg MI, Hermecz DA. Effects of participant modeling on information acquisition and skill utilization. J Consult Clin Psychol 1984;52(3):414–22.
[92] Mann J. Vicarious desensitization of test anxiety through observation of videotaped treatment. J Couns Psychol 1972;19(1):1–7.
[93] McMurray NE, Lucas JO, Arbres-Duprey V, Wright FAC. The effects of mastery and coping models on dental stress in young children. Aust J Psychol 1985;37(1):65–70.
[94] Menzies RG, Clarke JC. A comparison of in vivo and vicarious exposure in the treatment of childhood water phobia. Behav Res Ther 1993;31(1):9–15.
[95] Milos ME, Reiss S. Effects of three play conditions on separation anxiety in young children. J Consult Clin Psychol 1982;50(3):389–95.

[96] Ritter B. The group desensitization of children's snake phobias using vicarious and contact desensitization procedures. Behav Res Ther 1968;6(1):1–6.
[97] Rosenfarb I, Hayes SC. Social standard setting: the Achilles heel of informational accounts of therapeutic change. Behav Ther 1984;15(5):515–28.
[98] White Jr WC, Davis MT. Vicarious extinction of phobic behavior in early childhood. J Abnorm Child Psychol 1974;2:25–32.
[99] Jacobson E. Progressive relaxation. Chicago: University of Chicago Press; 1938.
[100] Andrews WR. Behavioral and client-centered counseling of high school underachievers. J Couns Psychol 1971;18(2):93–6.
[101] Wolpe J, Lazarus AA. Behavior therapy techniques: a guide to the treatment of neuroses. London: Pergamon Press; 1966.
[102] Johnson T, Tyler V, Thompson R, Jones E. Systematic desensitization and assertive training in the treatment of speech anxiety in middle-school students. Psychol Sch 1971;8(3):263–7.
[103] Leal LL, Baxter EG, Martin J, Marx RW. Cognitive modification and systematic desensitization with test anxious high school students. J Couns Psychol 1981;28(6):525–8.
[104] Saigh PA, Antoun FT. Endemic images and the desensitization process. J Sch Psychol 1984; 22(2):177–83.
[105] Ultee CA, Griffioen D, Schellekens J. The reduction of anxiety in children: a comparison of the effects of "systematic desensitization in vitro" and "systematic desensitization in vivo." Behav Res Ther 1982;20(1):61–7.
[106] Wilson NH, Rotter JC. Anxiety management training and study skills counseling for students on self-esteem and test anxiety and performance. Sch Couns 1986;34(1):18–31.
[107] Suinn RM. In: Thoresen JD, Krumboltz CE, editors. Anxiety management training to control general anxiety. New York: Holt, Rinehart, and Winston; 1976.
[108] Dewis LM, Kirkby KC, Martin F, Daniels BA, Gilroy LJ, Menzies RG. Computer-aided vicarious exposure versus live graded exposure for spider phobia in children. J Behav Ther Exp Psychiatry 2001;32(1):17–27.
[109] Obler M, Terwilliger RF. Pilot study on the effectiveness of systematic desensitization among children with phobic disorders. Proceedings of the 77th Annual Convention of the American Psychological Association. 1969;4(Pt. 2):501–2.
[110] Ost L, Svensson L, Hellstroem K, Lindwall R. One-session treatment of specific phobias in youths: a randomized clinical trial. J Consult Clin Psychol 2001;69(5):815–24.
[111] Tosi DJ, Swanson C, McLean P. Group counseling with nonverbalizing elementary school children. Elem Sch Guidance Couns 1970;4(4):260–6.
[112] Tosi DJ, Upshaw K, Lande A, Waldron MA. Group counseling with nonverbalizing elementary students: differential effects of Premack and social reinforcement techniques. J Couns Psychol 1971;18(5):437–40.
[113] Fantuzzo JW, Jurecic L, Stovall A, Hightower AD, Goins C, Schachtel D. Effects of adult and peer social initiations on the social behavior of withdrawn, maltreated preschool children. J Consult Clin Psychol 1988;56(1):34–9.
[114] Wehr SH, Kaufman ME. The effects of assertive training on performance in highly anxious adolescents. Adolescence 1987;22(85):195–205.
[115] Carbonell DM, Parteleno-Barehmi C. Psychodrama groups for girls coping with trauma. Int J Group Psychother 1999;49(3):285–306.
[116] Warren R, Deffenbacher JL, Brading P. Rational-emotive therapy and the reduction of test anxiety in elementary school students. Ration Liv 1976;11(2):26–9.
[117] Wessel I, Mersch PPA. A cognitive-behavioural group treatment for test-anxious adolescents. Anxiety Stress Coping Int J 1994;7(2):149–60.
[118] Ahrens J, Rexford L. Cognitive processing therapy for incarcerated adolescents with PTSD. J Aggress Maltreat Trauma 2002;6(1):201–16.
[119] Resick PA, SMK. Cognitive processing therapy for rape victims: a treatment manual. Newbury Park (CA): Sage; 1993.
[120] Aydin G, Yerin O. The effect of a story-based cognitive behavior modification procedure on

reducing children's test anxiety before and after cancellation of an important examination. Int J Advance Couns 1994;17(2):149–61.
[121] Barrett PM. Evaluation of cognitive-behavioral group treatments for childhood anxiety disorders. J Clin Child Psychol 1998;27(4):459–68.
[122] Barrett PM. Group coping koala workbook. Nathan, Australia: Griffith University; 1995.
[123] Barrett PM, Dadds MR, Rapee RM. Coping koala workbook. Nathan, Australia: Griffith University; 1991.
[124] Cradock C, Cotler S, Jason LA. Primary prevention: immunization of children for speech anxiety. Cognit Ther Res 1978;2(4):389–96.
[125] Cubberly WE, Weinstein CE, Cubberly RD. The interactive effects of cognitive learning strategy training and test anxiety on paired-associate learning. J Educ Res 1986;79(3):163–8.
[126] Deblinger E, Heflin AH. Treating sexually abused children and their nonoffending parents: a cognitive behavioral approach. Thousand Oaks (CA): Sage; 1996.
[127] Flannery-Schroeder EC, Kendall PC. Group and individual cognitive-behavioral treatments for youth with anxiety disorders: a randomized clinical trial. Cognit Ther Res 2000;24(3): 251–78.
[128] Kendall PC. Coping Cat Workbook. Ardmore (PA): Workbook Publishing; 1990.
[129] Ginsburg GS, Drake KL. School-based treatment for anxious African-American adolescents: a controlled pilot study. J Am Acad Child Adolesc Psychiatry 2002;41(7):768–75.
[130] Harris KR, Brown RD. Cognitive behavior modification and informed teacher treatments for shy children. J Exp Educ 1982;50(3):137–43.
[131] Kendall PC. Treating anxiety disorders in children: results of a randomized clinical trial. J Consult Clin Psychol 1994;62(1):100–10.
[132] Kendall PC, Flannery-Schroeder E, Panichelli-Mindel SM, Southam-Gerow M, Henin A, Warman M. Therapy for youths with anxiety disorders: a second randomized clincal trial. J Consult Clin Psychol 1997;65(3):366–80.
[133] King NJ, Tonge BJ, Heyne D, et al. Cognitive-behavioral treatment of school-refusing children: a controlled evaluation. J Am Acad Child Adolesc Psychiatry 1998;37(4):395–403.
[134] King NJ, Tonge BJ, Mullen P, et al. Treating sexually abused children with posttraumatic stress symptoms: a randomized clinical trial. J Am Acad Child Adolesc Psychiatry 2000;39(11): 1347–55.
[135] McMurray NE, Bell RJ, Fusillo AD, Morgan M, Wright FAC. Relationship between locus of control and effects of coping strategies on dental stress in children. Child Fam Behav Ther 1986;8(3):1–17.
[136] Muris P, Meesters C, van Melick M. Treatment of childhood anxiety disorders: a preliminary comparison between cognitive-behavioral group therapy and a psychological placebo intervention. J Behav Thern Exp Psychiatry 2002;33(3–4):143–58.
[137] Sanghvi C. Efficacy of study skills training in managing study habits and test anxiety of high test anxious students. J Indian Acad Appl Psychol 1995;21(1):71–5.
[138] Silverman WK, Kurtines WM, Ginsburg GS, Weems CF, Rabian B, Serafini LT. Contingency management, self-control, and education support in the treatment of childhood phobic disorders: a randomized clinical trial. J Consult Clin Psychol 1999;67(5):675–87.
[139] Silverman WK, Kurtines WM. Anxiety and phobic disorders: a pragmatic approach. New York: Plenum Press; 1996.
[140] Spence SH, Donovan C, Brechman-Toussaint M. The treatment of childhood social phobia: the effectiveness of a social skills training-based, coginitive-behavioral intervention, with and without parental involvement. J Child Psychol Psychiatry 2000;41(6):713–26.
[141] Spence SH. Social skills training: enhancing social competence with children and adolescent. Windsor, UK: NFER-Nelson; 1995.
[142] Sud A. Attentional skills training/cognitive modeling: short term therapeutic cognitive interventions for test anxiety. Psychol Stud 1994;39(1):1–7.
[143] Sud A, Sharma S. Two short-term, cognitive interventions for the reduction of test anxiety. Anxiety Res 1990;3(2):131–47.

[144] Williams CE, Jones RT. Impact of self-instructions on response maintenance and children's fear of fire. J Clin Child Psychol 1989;18(1):84–9.
[145] Cornwall E, Spence SH, Schotte D. The effectiveness of emotive imagery in the treatment of darkness phobia in children. Behav Change 1996;13(4):223–9.
[146] Wenck LS, Leu PW, D'Amato RC. Evaluating the efficacy of a biofeedback intervention to reduce children's anxiety. J Clin Psychol 1996;52(4):469–73.
[147] Stanton HE. Self-hypnosis: one path to reduced test anxiety. Contemp Hypnosis 1994;11(1): 14–8.
[148] Lowenstein LF. The treatment of extreme shyness in maladjusted children by implosive, counselling and conditioning approaches. Acta Psychiatr Scand 1982;66(3):173–89.
[149] Barrett PM. Group family anxiety management. Nathan, Australia: Griffith University; 1995.
[150] Windheuser HJ. Anxious mothers as models for coping with anxiety. Behav Anal Modif 1977;2(1):39–58.
[151] Clement PW, Milne DC. Group play therapy and tangible reinforcers used to modify the behavior of 8-yr-old boys. Behav Res Ther 1967;5(4):301–12.
[152] Cobham VE, Dadds MR, Spence SH. Study 2. Child and parent anxiety. The role of parental anxiety in the treatment of childhood anxiety. J Consult Clin Psychol 1998;66(6):893–905.
[153] Graziano AM, Mooney KC. Family self-control instruction for children's nighttime fear reduction. J Consult Clin Psychol 1980;48(2):206–13.
[154] Manassis K, Mendlowitz SL, Scapillato D, et al. Group and individual cognitive-behavioral therapy for childhood anxiety disorders. A randomized trial. J Am Acad Child Adolesc Psychiatry 2002;41(12):1423–30.
[155] Manassis K. Keys to parenting your anxious child. Hauppauge (NY): Barron's Educational Series; 1996.
[156] Silverman WK, Kurtines WM, Ginsburg GS, Weems CF, Lumpkin PW, Carmichael DH. Treating anxiety disorders in children with group cognitive-behavioral therapy: a randomized clinical trial. J Consult Clin Psychol 1999;67(6):995–1003.
[157] Miller LC, Barrett CL, Hampe E, Noble H. Comparison of reciprocal inhibition, psychotherapy, and waiting list control for phobic children. J Abnorm Psychol 1972;79(3):269–79.
[158] Shortt AL, Barrett PM, Fox TL. Evaluating the FRIENDS Program: a cognitive-behavioral group treatment for anxious children and their parents. J Clin Child Psychol 2001;30(4):525–35.
[159] Barrett PM, Lowry-Webster H, Turner C. FRIENDS Program for Children: parents' supplement. Brisbane, Australia: Australian Academic Press; 2000.
[160] Barrett PM, Lowry-Webster H, Turner C. FRIENDS Program for Children: group leaders manual. Brisbane, Australia: Australian Academic Press; 2000.
[161] Barrett PM, Lowry-Webster H, Turner C. FRIENDS Program for Children: participants workbook. Brisbane, Australia: Australian Academic Press; 2000.
[162] Ackerson J, Scogin F, McKendree-Smith N, Lyman R. Cognitive bibiliotherapy for mild and moderate adolescent depressive symptomatology. J Consult Clin Psychol 1998;66(4):685–90.
[163] Burns D. Feeling good. New York: Signet; 1980.
[164] Brent DA, Roth CM, Holder DP, Kolko DJ, et al. Psychosocial interventions for treating adolescent depression: a comparison of three psychosocial interventions. In: Hibbs ED, Jensen PS, editors. Psychosocial treatment for child and adolescent disorders: empirically based strategies for clinical practice. Washington, DC: American Psychiatric Press; 1996. p. 187–206.
[165] Clarke GN, Hawkins W, Murphy M, Sheeber LB, Lewinsohn PM, Seeley JR. Targeted prevention of unipolar depressive disorder in an at-risk sample of high school adolescents: a randomized trial of group cognitive intervention. J Am Acad Child Adolesc Psychiatry 1995;34(3):312–21.
[166] Clarke GN, Rohde P, Lewinsohn PM, Hops H, Seeley JR. Cognitive-behavioral treatment of adolescent depression: efficacy of acute group treatment and booster sessions. J Am Acad Child Adolesc Psychiatry 1999;38(3):272–9.
[167] Clarke GN, Hornbrook M, Lynch F, Polen M, Gale J, Beardslee W, et al. A randomized trial of a group cognitive intervention for preventing depression in adolescent offspring of depressed parents. Arch Gen Psychiatry 2001;58(12):1127–34.

[168] Kahn JS, Kehle TJ, Jenson WR, Clark E. Comparison of cognitive-behavioral, relaxation, and self-modeling interventions for depression among middle-school students. School Psych Rev 1990;19(2):196–211.
[169] Clarke GN, Lewinsohn PM. The Coping with Depression Course–Adolescent Version: a psychoeducational intervention for unipolar depression in high school students. Eugene (OR): Oregon Research Institute; 1984.
[170] Clarke GN, Lewinsohn PM. The Coping with Depression Course–Adolescent Version: a psychoeducational intervention for unipolar depression in high school students. Eugene (OR): Oregon Research Institute; 1986.
[171] Reynolds WM, Coats KI. A comparison of cognitive-behavioral therapy and relaxation training for the treatment of depression in adolescents. J Consult Clin Psychol 1986;54(5): 653–60.
[172] Rossello J, Bernal G. The efficacy of cognitive-behavioral and interpersonal treatments for depression in Puerto Rican adolescents. J Consult Clin Psychol 1999;67(5):734–45.
[173] Stark KD, Reynolds WM, Kaslow NJ. A comparison of the relative efficacy of self-control therapy and a behavioral problem-solving therapy for depression in children. J Abnorm Child Psychol 1987;15(1):91–113.
[174] Lewinsohn PM, Sullivan JM, Grosscup SJ. Changing reinforcing events: an approach to the treatment of depression. Psychother Theor Res Pract 1980;17(3):322–34.
[175] Rehm LP. A self-management therapy program for depression. Int J Ment Health 1984;13(3–4): 34–53.
[176] Weisz JR, Thurber CA, Sweeney L, Proffitt VD, LeGagnoux GL. Brief treatment of mild-to-moderate child depression using primary and secondary control enhancement training. J Consult Clin Psychol 1997;65(4):703–7.
[177] Wood A, Harrington R, Moore A. Controlled trial of a brief cognitive-behavioural intervention in adolescent patients with depressive disorders. J Child Psychol Psychiatry 1996;37(6):737–46.
[178] Mufson L, Moreau D, Weissman MM, Klerman GL. Interpersonal psychotherapy for depressed adolescents. 2nd edition. New York: Guilford Press; 1993.
[179] Reed MK. Social skills training to reduce depression in adolescents. Adolescence 1994; 29(114):293–302.
[180] Goldstein AP, Sprafkin RP, Gershaw MJ, Klein P. Skill streaming the adolescent: a structured learning approach to teaching prosocial skills. Champaign (IL): Research Press; 1980.
[181] Smith JC. Relaxation dynamics: nine world approaches to self-relaxation. Champaign (IL): Research Press; 1985.
[182] Wood A, Trainor G, Rothwell J, Moore A, Harrington R. Randomized trial of group therapy for repeated deliberate self-harm in adolescents. J Am Acad Child Adolesc Psychiatry 2001; 40(11):1246–53.
[183] Diamond GS, Reis BF, Diamond GM, Siqueland L, Isaacs L. Attachment-based family therapy for depressed adolescents: a treatment development study. J Am Acad Child Adolesc Psychiatry 2002;41(10):1190–6.
[184] Diamond GS. Attachment based family therapy: facilitating reattachment. In: Johnson S, editor. Attachment and systems therapies. NewYork: Norton; 2001.
[185] Lewinsohn PM, Clarke GN. The Coping with Depression Course–Adolescent Version: parent manual. 1986.
[186] Randell BP, Eggert LL, Pike KC. Immediate post intervention effects of two brief youth suicide prevention interventions. Suicide Life Threat Behav 2001;31(1):41–61.
[187] Brown RT, Conrad KJ. Impulse control or selective attention: remedial programs for hyperactivity. Psychol Sch 1982;19(1):92–7.
[188] Brown RT, Borden KA, Wynne ME, Schleser R, Clingerman SR. Methylphenidate and cognitive therapy with ADD children: a methodological reconsideration. J Abnorm Child Psychol 1986;14(4):481–97.
[189] Brown RT, Wynne ME, Borden KA, Clingerman SR, Geniesse R, Spunt AL. Methylphenidate and cognitive therapy in children with attention deficit disorder: a double-blind trial. Dev Behav Pediatr 1986;7(3):163–70.

[190] Campbell DS, Neill J, Dudley P. Computer-aided self-instruction training with hearing-impaired impulsive students. Am Ann Deaf 1989;134(3):227–31.
[191] Campbell DS, Neill J, Dudley P. Computer aided self-instruction training with impulsive deaf students and learning disabled students. Toronto: Ontario Ministry of Education; 1986.
[192] Cullinan D, Epstein MH, Silver L. Modification of impulsive tempo in learning disabled pupils. J Clin Psychol 1977;5:437–44.
[193] Egeland B. Training impulsive children in the use of more efficient scanning techniques. Child Dev 1974;45(1):165–71.
[194] Graybill D, Jamison M, Swerdlik ME. Remediation of impulsivity in learning disabled children by special education resource teachers using verbal self-instruction. Psychol Sch 1984;21(2): 252–4.
[195] Hinshaw SP, Henker B, Whalen CK. Study 2. Self-control in hyperactive boys in anger-inducing situations: effects of cognitive-behavioral training and of methylphenidate. J Abnorm Child Psychol 1984;12(1):55–77.
[196] Horn WF, Ialongo N, Popovich S, Peradotto D. Behavioral parent training and cognitive-behavioral self-control therapy with ADD-H children: comparative and combined effects. J Clin Child Psychol 1987;16(1):57–68.
[197] Kaduson HG, Finnerty K. Self-control game interventions for attention-deficit hyperactivity disorder. Int J Play Ther 1995;4(2):15–29.
[198] Berg B. The self-control game: teaching attention and hyperactivity control skills. King of Prussia (PA): Center for Applied Psychology; 1990.
[199] Nelson WJ, Birkimer JC. Role of self-instruction and self-reinforcement in the modification of mpulsivity. J Consult Clin Psychol 1978;46(1):183.
[200] Orbach I. Impulsive cognitive style: three modification techniques. Psychol Sch 1977;14(3): 353–9.
[201] Palkes H, Stewart M, Kahana B. Porteus maze performance of hyperactive boys after training in self-directed verbal commands. Child Dev 1968;39(3):817–26.
[202] Palkes H, Stewart M, Freedman J. Improvement in maze performance of hyperactive boys as a function of verbal-training procedures. J Spec Educ 1971;5(4):337–42.
[203] Parrish JM, Erickson MT. A comparison of cognitive strategies in modifying the cognitive style of impulsive third-grade children. Cognit Ther Res 1981;5(1):71–84.
[204] Reid MK, Borkowski JG. Causal attributions of hyperactive children: implications for teaching strategies and self-control. J Educ Psychol 1987;79(3):296–307.
[205] Padawer WJ. Developing Self-Control in Children: a manual of cognitive-behavioral strategies. Minneapolis (MN): University of Minnesota; 1980.
[206] Schleser R, Meyers AW, Cohen R, Thackwray D. Self-instruction interventions with non-self-controlled children: effects of discovery versus faded rehearsal. J Consult Clin Psychol 1983; 51(6):942–3.
[207] Klein SA, Deffenbacher JL. Relaxation and exercise for hyperactive impulsive children. Percept Mot Skills 1977;45(3 Pt 2):1159–62.
[208] Lupin M. Peace, harmony, and awareness. Austin (TX): Learning Concepts; 1977.
[209] Barber MA, Milich R, Welsh R. Effects of reinforcement schedule and task difficulty on the performance of attention deficit hyperactivity disordered and control boys. J Clin Child Psychol 1996;25(1):66–76.
[210] Pfiffner LJ, McBurnett K. Social skills training with parent generalization: treatment effects for children with attention deficit disorder. J Consult Clin Psychol 1997;65(5):749–57.
[211] Pisterman S, McGrath PJ, Firestone P, Goodman JT, Webster I, Mallory R. Outcome of parent-mediated treatment of preschoolers with attention deficit disorder with hyperactivity. J Consult Clin Psychol 1989;57(5):628–35.
[212] Pisterman S, Firestone P, McGrath P, et al. The role of parent training in treatment of preschoolers with ADHD. Am J Orthopsychiatry 1992;62(3):397–408.
[213] Barkley RA, Shelton TL, Crosswait C, et al. Multi-method psycho-educational intervention for preschool children with disruptive behavior: preliminary results at post-treatment. J Child Psychol Psychiatry 2000;41(3):319–32.

[214] Pfiffner L, Barkley RA. Treatment of ADHD in school settings. In: Barkley RA, editor. Attention deficit hyperactivity disorder: a handbook for diagnosis and treatment. New York: Guilford Press; 1998. p. 458–90.
[215] Fehlings DL, Roberts W, Humphries T, Dawe G. Attention deficit hyperactivity disorder: does cognitive behavioral therapy improve home behavior? J Dev Behav Pediatr 1991;12(4):223–38.
[216] Bloomquist ML, August GJ, Ostrander R. Effects of a school-based cognitive-behavioral intervention for ADHD children. J Abnorm Child Psychol 1991;19(5):591–605.
[217] Braswell L, Bloomquist ML. Cognitive-behavioral therapy with ADHD children: child, family, and school interventions. New York: Guilford; 1991.
[218] Barkley RA. Defiant children: a clinician's manual for parent training. New York: Guilford; 1987.
[219] O'Leary KD, Pelham WE, Rosenbaum A, Price GH. Behavioral treatment of hyperkinetic children. Clin Pediatr (Phila) 1976;15:510–4.
[220] Jesness CF. Some variations in techniques of contingency management in a school for delinquents. In: Stumphauzer JS, editor. Behavior therapy with delinquents. Springfield (IL): Charles C. Thomas; 1973. p. 196–235.
[221] Miran M, Lehrer PM, Koehler R, Miran E. What happens when deviant behavior begins to change? The relevance of a social systems approach for behavioral programs with adolescents. J Community Psychol 1974;2(4):370–5.
[222] Arbuthnot J, Gordon DA. Behavioral and cognitive effects of a moral reasoning development intervention for high-risk behavior-disordered adolescents. J Consult Clin Psychol 1986; 54(2):208–16.
[223] Arbuthnot J, Faust D. Teaching moral reasoning: theory and practice. New York: Harper & Row; 1981.
[224] Ladenburg TL. Moral education. Davis (CA): Responsible Action; 1978.
[225] Camp BW, Blom GE, Herbert F, Van Doorninck WJ. Think aloud": a program for developing self-control in young aggressive boys. J Abnorm Child Psychol 1977;5:157–69.
[226] Deffenbacher JL, Lynch RS, Oetting ER, Kemper CC. Anger reduction in early adolescents. J Couns Psychol 1996;43(2):149–57.
[227] Feindler EL, Marriott SA, Iwata M. Group anger control training for junior high school delinquents. Cognit Ther Res 1984;8(3):299–311.
[228] Guerra NG, Slaby RG. Cognitive mediators of aggression in adolescent offenders: II. Intervention. Dev Psychol 1990;26(2):269–77.
[229] Hawkins JD, Jenson JM, Catalano RF, Wells EA. Effects of a skills training intervention with juvenile delinquents. Res Soc Work Pract 1991;1(2):107–21.
[230] Kazdin AE, Esveldt-Dawson K, French NH, Unis AS. Problem-solving skills training and relationship therapy in the treatment of antisocial child behavior. J Consult Clin Psychol 1987;55(1):76–85.
[231] Kazdin AE, Bass D, Siegel T, Thomas C. Cognitive-behavioral therapy and relationship therapy in the treatment of children referred for antisocial behavior. J Consult Clin Psychol 1989; 57(4):522–35.
[232] Kendall PC, Zupan BA. Individual versus group application of cognitive-behavioral self-control procedures with children. Behav Ther 1981;12(3):344–59.
[233] Kettlewell PW, Kausch DF. The generalization of the effects of a cognitive-behavioral treatment program for aggressive children. J Abnorm Child Psychol 1983;11(1):101–14.
[234] Klarreich SH. A study comparing two treatment approaches with adolescent probationers. Correct Soc Psychiatry J Behav Technol Methods Ther 1981;27(1):1–13.
[235] Kolko DJ, Watson S, Faust J. Fire safety/prevention skills training to reduce involvement with fire in young psychiatric inpatients: preliminary findings. New York: Association for the Advancement of Behavior Therapy; 1991.
[236] Larkin R, Thyer BA. Evaluating cognitive-behavioral group counseling to improve elementary school students' self-esteem, self-control and classroom behavior. Behav Intervent 1999;14(3): 147–61.
[237] O'Rourke K, Worzbyt JC. Support groups for children. Washington, DC: Accelerated Development; 1996.

[238] Larson KA, Gerber MM. Effects of social metacognitive training for enhancing overt behavior in learning disabled and low achieving delinquents. Except Child 1987;54(3):201–11.
[239] LeCroy CW. Anger management or anger expression: which is most effective? Resident Treat ChildYouth 1988;5(3):29–39.
[240] Manning BH. Application of cognitive behavior modification: first and third graders' self-management of classroom behaviors. Am Educ Res J 1988;25(2):193–212.
[241] Meichenbaum DH. Cognitive-behavior modification: an integrative approach. New York: Plenum; 1977.
[242] Omizo MM, Hershberger JM, Omizo SA. Teaching children to cope with anger. Elem Sch Guidance Couns 1988;22(3):241–5.
[243] Rosal ML. Comparative group art therapy research to evaluate changes in locus of control in behavior disordered children. Arts Psychother 1993;20(3):231–41.
[244] Saylor CF, Benson B, Einhaus L. Evaluation of an anger management program for aggressive boys in inpatient treatment. J Child Adolesc Psychother 1985;2(1):5–15.
[245] Moss JH. A manual for stress-inoculation for anger control in children. 1979.
[246] Schneider BH. A comparison of skill-building and desensitization strategies for intervention with aggressive children. Aggress Behav 1991;17(6):301–11.
[247] Snyder KV, Kymissis P, Kessler K. Anger management for adolescents: efficacy of brief group therapy. J Am Acad Child Adolesc Psychiatry 1999;38(11):1409–16.
[248] Snyder JJ, White MJ. The use of cognitive self-instruction in the treatment of behaviorally disturbed adolescents. Behav Ther 1979;10(2):227–35.
[249] Huey WC, Rank RC. Effects of counselor and peer-led group assertive training on black adolescent aggression. J Couns Psychol 1984;31(1):95–8.
[250] Michelson LS. Las habiliaades sociales en la infancia. Barcelona, Spain: Martinez Roca SA; 1987.
[251] Lee DY, Hallberg ET, Hassard JH. Effects of assertion training on aggressive behavior of adolescents. J Couns Psychol 1979;26(5):459–61.
[252] Alberti RE, Emmons ML. Your perfect right: a guide to assertive behavior. San Luis Obispo (CA): Impact; 1974.
[253] Spence SH, Marzillier JS. Social skills training with adolescent male offenders: II. Short-term, long-term and generalized effects. Behav Res Ther 1981;19(4):349–68.
[254] Spence SH. Social skills training with children and adolescents: a counselors' manual. Windsor, UK: NFER-Nelson; 1980.
[255] Tanner VL, Holliman WB. Effectiveness of assertiveness training in modifying aggressive behaviors of young children. Psychol Rep 1988;62(1):39–46.
[256] Alberti RE, Emmons ML. Stand up, speak out, talk back! New York: Pocket Books; 1975.
[257] Block J. Effects of a rational-emotive mental health program on poorly achieving, disruptive high school students. J Couns Psychol 1978;25(1):61–5.
[258] Knaus W. Rational emotive education: a manual for teachers. New York: Institute for Rational Living; 1974.
[259] Basile VC, Motta RW, Allison DB. Antecedent exercise as a treatment for disruptive behavior: testing hypothesized mechanisms of action. Behav Intervent 1995;10(3):119–40.
[260] Hilyer JC, Wilson DG, Caro L, et al. Physical fitness training and counseling as treatment for youthful offenders. J Couns Psychol 1982;29(3):292–303.
[261] Lee R, Haynes NM. Counseling juvenile offenders: an experimental evaluation of Project CREST. Community Ment Health J 1978;14(4):267–71.
[262] Leeman LW, Gibbs JC, Fuller D. Evaluation of a multi-component group treatment program for juvenile delinquents. Aggress Behav 1993;19(4):281–92.
[263] Maher CA. Behavioral effects of using conduct problem adolescents as cross-age tutors. Psychol Sch 1982;19(3):360–4.
[264] Miller D. Effect of a program of therapeutic discipline on the attitude, attendance, and insight of truant adolescents. J Exp Educ 1986;55(1):49–53.
[265] Ostrom TM, Steele CM, Rosenblood LK, Mirels HL. Modification of delinquent behavior. J Appl Soc Psychol 1971;1(2):118–36.

[266] Persons RW. Psychological and behavioral change in delinquents following psychotherapy. J Clin Psychol 1966;22(3):337–40.
[267] Redfering D. Group counseling with institutionalized delinquent females. Am Correct Ther J 1972;4:160–3.
[268] Shechtman Z. An innovative intervention for treatment of child and adolescent aggression: an outcome study. Psychol Sch 2000;37(2):157–67.
[269] Truax CB, Wargo DG, Silber LD. Effects of group psychotherapy with high accurate empathy and nonpossessive warmth upon female istitutionalized delinquents. J Abnorm Psychol 1966; 71:267–74.
[270] Bank L, Marlowe JH, Reid JB, Patterson GR, Weinrott MR. A comparative evaluation of parent-training interventions for families of chronic delinquents. J Abnorm Child Psychol 1991;19(1):15–33.
[271] Patterson GR. Families with aggressive children. A social learning approach to family intervention, vol. I. Eugene (OR): Castalia Publishing; 1975.
[272] Patterson GR, Forgatch MS. Parents and adolescents living together. Part 1. The basics. Eugene (OR): Castalia Publishing; 1987.
[273] Forgatch MS, Patterson GR. Parents and adolescents living together. Part 2. Family problem solving. Eugene (OR): Castalia Publishing; 1989.
[274] Dishion T, Kavanaugh K. The Adolescent Transitions Program. Eugene (OR): Independent Video Services; 1989.
[275] Bean AW, Roberts MW. The effect of time-out release contingencies on changes in child noncompliance. J Abnorm Child Psychol 1981;9(1):95–105.
[276] Bernal ME, Klinnert MD, Schultz LA. Outcome evaluation of behavioral parent training and client-centered parent counseling for children with conduct problems. J Appl Behav Anal 1980;13(4):677–91.
[277] Connell S, Sanders MR, Markie-Dadds C. Self-directed behavioral family intervention for parents of oppositional children in rural and remote areas. Behav Modif 1997;21(4):379–407.
[278] Sanders MR. Every parent: a positive guide to children's behavior. Sydney, Australia: Addison-Wesley; 1992.
[279] Sanders MR, Markie-Dadds C. Every parent's workbook: a practical guide to positive parenting. Brisbane, Australia: Australian Academic Press; 1994.
[280] Csapo M. The effect of self-recording and social reinforcement components of parent training programs. J Exp Child Psychol 1979;27(3):479–88.
[281] Cunningham CE, Bremner R, Boyle M. Large group community-based parenting programs for families of preschoolers at risk for disruptive behaviour disorders: utilization, cost effectiveness, and outcome. J Child Psychol Psychiatry Allied Discipl 1995;36(7):1141–59.
[282] Cunningham CE. A family systems approach to parent training. In: Barkley RA, editor. Attention deficit hyperactivity disorder: a handbook for diagnosis and treatment. New York: Guilford Press; 1990. p. 432–61.
[283] Diament C, Colletti G. Evaluation of behavioral group counseling for parents of learning-disabled children. J Abnorm Child Psychol 1978;6(3):385–400.
[284] Becker WC. Parents Are Teachers: a child management program. Champaign (IL): Research Press; 1971.
[285] Dishion TJ, Andrews DW. Preventing escalation in problem behaviors with high-risk young adolescents: immediate and 1-year outcomes. J Consult Clin Psychol 1995;63(4):538–48.
[286] Firestone P, Kelly MJ, Fike S. Are fathers necessary in parent training groups? J Clin Child Psychol 1980;9(1):44–7.
[287] Fleischman MJ. Social learning interventions for aggressive children: from the laboratory to the real world. Behav Therapist 1982;5(2):55–8.
[288] Hughes RC, Wilson PH. Behavioral parent training: contingency management versus communication skills training with or without the participation of the child. Child Fam Behav Ther 1988;10(4):11–23.
[289] Karoly P, Rosenthal M. Training parents in behavior modification: effects on perceptions of family interaction and deviant child behavior. Behav Ther 1977;8(3):406–10.

[290] Lewis WM. Group training for parents of children with behavior problems. J Special Group Work 1986;11(4):194–9.
[291] Roberts MW, McMahon RJ, Forehand R, Humphreys L. The effect of parental instruction-giving on child compliance. Behav Ther 1978;9(5):793–8.
[292] Roberts MW, Hatzenbuehler LC, Bean AW. The effects of differential attention and time out on child noncompliance. Behav Ther 1981;12(1):93–9.
[293] Spaccarelli S, Cotler S, Penman D. Problem-solving skills training as a supplement to behavioral parent training. Cognit Ther Res 1992;16(1):1–17.
[294] Webster-Stratton C. Videotape modeling: a method of parent education. J Clin Child Psychol 1981;10(2):93–8.
[295] Webster-Stratton C. Parent and Children Series videocassette program. Eugene (OR): Castalia Press; 1986.
[296] Taylor TK, Schmidt F, Pepler D, Hodgins C. A comparison of eclectic treatment with Webster-Stratton's parents and children series in a children's mental health center: a randomized controlled trial. Behav Ther 1998;29(2):221–40.
[297] Webster-Stratton C. The Parents and Children Videotape Series: programs 1–10. Seattle, WA: Seth Enterprises; 1992.
[298] Webster-Stratton C. Modification of mothers' behaviors and attitudes through a videotape modeling group discussion program. Behav Ther 1981;12(5):634–42.
[299] Webster-Stratton C, Kolpacoff M, Hollinsworth T. Self-administered videotape therapy for families with conduct-problem children: comparison with two cost-effective treatments and a control group. J Consult Clin Psychol 1988;56(4):558–66.
[300] Webster-Stratton C. Parents and Children: a 10 program videotape parent training series with manuals. Eugene (OR): Castalia Press; 1987.
[301] Webster-Stratton C. Enhancing the effectiveness of self-administered videotape parent training for families with conduct-problem children. J Abnorm Child Psychol 1990;18(5):479–92.
[302] Webster-Stratton C. Individually administered videotape parent training: "Who benefits?" Cognit Ther Res 1992;16(1):31–52.
[303] Taylor WF, Hoedt KC. Classroom-related behavior problems: counsel parents, teachers, or children? J Couns Psychol 1974;21(1):3–8.
[304] Dinkmeyer D, Dreikurs R. Encouraging children to learn: the encouragement process. Englewood Cliffs (NJ): Prentice Hall; 1963.
[305] Dreikurs R, Soltz V. Children the challenge. New York: Meredith; 1964.
[306] Gundel RC. The interaction of locus of control with three behavioral procedures in the modification of disruptive behavior in emotionally disturbed boys. Multivar Exp Clin Res 1981;5(3):99–108.
[307] Barrett PM, Turner C, Rombouts S, Duffy A. Reciprocal skills training in the treatment of externalising behaviour disorders in childhood: a preliminary investigation. Behav Change 2000;17(4):221–34.
[308] Eyberg SM, Boggs SR, Algina J. Parent-child interaction therapy: a psychosocial model for the treatment of young children with conduct problem behavior and their families. Psychopharmacol Bull 1995;31(1):83–91.
[309] Jouriles EN, McDonald R, Spiller L, et al. Reducing conduct problems among children of battered women. J Consult Clin Psychol 2001;69(5):774–85.
[310] Ezell E, McDonald R, Jouriles EN. Helping children of battered women: a review of research, sampling of programs, and presentation of Project SUPPORT. In: Vincent J, Jouriles JV, editors. Domestic violence: guidelines for research–informed by practice. London: Kingsley; 2000. p. 144–70.
[311] Jouriles EN, McDonald R, Stephens N, Norwood W, Spiller LC, Ware HS. Breaking the cycle of violence: helping families departing from battered women's shelters. In: Holden GW, Geffner R, editors. Children exposed to marital violence: theory, research, and applied issues. Washington, DC: American Psychological Association; 1998. p. 337–69.

[312] Hembree-Kigin TL, McNeil CB. Parent-child interaction therapy. New York: Plenum; 1995.
[313] Raue J, Spence SH. Group versus individual applications of reciprocity training for parent-youth conflict. Behav Res Ther 1985;23(2):177–86.
[314] Sayger TV, Horne AM, Walker JM, Passmore JL. Social learning family therapy with aggressive children: treatment outcome and maintenance. J Fam Psychol 1988;1(3):261–85.
[315] Fleischman MJ. Troubled families: a treatment program. Champaign (IL): Research Press; 1983.
[316] Schuhmann EM, Foote RC, Eyberg SM, Boggs SR, Algina J. Efficacy of parent-child interaction therapy: Interim report of a randomized trial with short-term maintenance. J Clin Child Psychol 1998;27(1):34–45.
[317] Forehand R, McMahon RJ. Helping the noncompliant child: a clinician's guide to parent training. New York: Guilford Press; 1981.
[318] Zangwill WM. An evaluation of a parent training program. Child Fam Behav Ther 1983;5(4):1–16.
[319] Dembo R, Shemwell M, Guida J, Schmeidler J, Pacheco K, Seeberger W. A longitudinal study of the impact of a family empowerment intervention on juvenile offender psychosocial functioning: a first assessment. J Child Adolesc Subst Abuse 1998;8(1):15–54.
[320] Pfiffner LJ, Jouriles EN, Brown MM, Etscheidt MA, Kelly JA. Effects of problem-solving therapy on outcomes of parent training for single-parent families. Child Fam Behav Ther 1990;12(1):1–11.
[321] Kolko DJ. Efficacy of cognitive-behavioral treatment and fire safety education for children who set fires: initial and follow-up outcomes. J Child Psychol Psychiatry 2001;42(3):359–69.
[322] Stuart RB, Jayaratne S, Tripodi T. Changing adolescent deviant behaviour through reprogramming the behaviour of parents and teachers: an experimental evaluation. Can J Behav Sci 1976;8(2):132–44.
[323] Stuart RB, Tripodi T, Jayaratne S, Camburn D. An experiment in social engineering in serving the families of predelinquents. J Abnorm Child Psychol 1976;4:243–61.
[324] Stuart RB. Behavior modification for the educational technologist. In: Ulrich R, Stachnik TE, Mabry J, editors. Control of human behavior, vol. 3. New York: Scott Foresman; 1974.
[325] Borduin CM, Henggeler SW, Blaske DM, Stein RJ. Multisystemic treatment of adolescent sexual offenders. Int J Offender Ther Comp Criminol 1990;34(2):105–13.
[326] Henggeler SW, Borduin CM. Family therapy and beyond: a multisystemic approach to treating the behavior programs of children and adolescents. Pacific Grove (CA): Brooks/Cole; 1990.
[327] Chamberlain P. Family connections: treatment foster care for adolescents with delinquency. Eugene (OR): Castalia; 1994.
[328] Emshoff JG, Blakely CH. The diversion of delinquent youth: family focused intervention. ChildYouth Serv Rev 1983;5(4):343–56.
[329] Henggeler SW, Borduin CM, Melton GB, Mann BJ, et al. Effects of multisystemic therapy on drug use and abuse in serious juvenile offenders: a progress report from two outcome studies. Fam Dynam Addict Q 1991;1(3):40–51.
[330] Henggeler SW, Melton GB, Smith LA. Family preservation using multisystemic therapy: an effective alternative to incarcerating serious juvenile offenders. J Consult Clin Psychol 1992;60(6):953–61.
[331] Henggeler SW, Melton GB, Brondino MJ, Scherer DG, Hanley JH. Multisystemic therapy with violent and chronic juvenile offenders and their families: the role of treatment fidelity in successful dissemination. J Consult Clin Psychol 1997;65(5):821–33.
[332] Mann BJ, Borduin CM, Henggeler SW, Blaske DM, et al. An investigation of systemic conceptualizations of parent-child coalitions and symptom change. J Consult Clin Psychol 1990;58(3):336–44.
[333] McCord J, Tremblay RE, Vitaro F, Desmarais-Gervais L. Boy's disruptive behaviour, school adjustment, and delinquency: the Montreal Prevention Experiment. Int J Behav Dev 1994;14(4):739–52.
[334] Scherer DG, Brondino MJ, Henggeler SW, Melton GB, et al. Multisystemic family preservation therapy: preliminary findings from a study of rural and minority serious adolescent offenders.

Special series: Center for Mental Health Services Research Projects. J Emot Behav Disorders 1994;2(4):198–206.

[335] Clarke G, Lewinsohn P, Hops H. Leader's manual for adolescent groups: adolescent coping with depression course. Eugene (OR): Castalia Publishing Company; 1990.

[336] Averbach AB. Parents learn through discussion. New York: Wiley; 1968.