

Evidence-Based Psychosocial Treatments for Ethnic Minority Youth

Stanley J. Huey, Jr.

University of Southern California

Antonio J. Polo

DePaul University

This article reviews research on evidence-based treatments (EBTs) for ethnic minority youth using criteria from Chambless et al. (1998), Chambless et al. (1996), and Chambless and Hollon (1998). Although no *well-established* treatments were identified, *probably efficacious* or *possibly efficacious* treatments were found for ethnic minority youth with anxiety-related problems, attention-deficit/hyperactivity disorder, depression, conduct problems, substance use problems, trauma-related syndromes, and other clinical problems. In addition, all studies met either Nathan and Gorman's (2002) Type 1 or Type 2 methodological criteria. A brief meta-analysis showed overall treatment effects of medium magnitude ($d = .44$). Effects were larger when EBTs were compared to no treatment ($d = .58$) or psychological placebos ($d = .51$) versus treatment as usual ($d = .22$). Youth ethnicity (African American, Latino, mixed/other minority), problem type, clinical severity, diagnostic status, and culture-responsive treatment status did not moderate treatment outcome. Most studies had low statistical power and poor representation of less acculturated youth. Few tests of cultural adaptation effects have been conducted in the literature and culturally validated outcome measures are mostly lacking. Recommendations for clinical practice and future research directions are provided.

Psychotherapy research with children and adolescents has flourished in recent years, with many treatments tested on youth with diverse mental health problems (Durlak, Wells, Cotton, & Johnson, 1995; Kazdin, 2000; Kazdin, Bass, Ayers, & Rodgers, 1990; Weisz, Weiss, Han, Granger, & Morton, 1995). Although considerable variation in outcomes exists, results converge

around one central finding: Research-based treatments¹ are superior to “placebo” or no treatment, with the average treated youth faring better posttreatment than 75% of controls (Casey & Berman, 1985; Weisz, Huey, & Weersing, 1998; Weisz & Weiss, 1987; Weisz, Weiss, et al., 1995). In other words, youth psychotherapy works.

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Correspondence should be addressed to Stanley J. Huey, Jr., Department of Psychology, University of Southern California, SGM 501, 3620 S. McClintock Avenue, Los Angeles, CA 90089-1061. E-mail: hueyjr@usc.edu

¹Weisz and colleagues (Weisz, Donenberg, & Han, 1995; Weisz, Huey, & Weersing, 1998) distinguished between “research therapy” as conducted in university-based settings and “clinic therapy” as practiced in community settings. Research therapy is often characterized by (a) inclusion of youth who were recruited for treatment, (b) homogenous samples with one focal problem, (c) therapists with extensive pretherapy training and supervision, and (d) therapy that is highly structured and/or guided by a manual. Youth psychotherapy outcome research is based almost exclusively on research therapy. However, Weisz and colleagues argued that research therapies may have limited generalizability to clinical practice.

This body of research has helped generate enthusiasm for evidence-based treatment (EBT) as a way to select individual therapies that are efficacious for youth and adults (Chambless & Hollon, 1998; Lonigan, Elbert, & Johnson, 1998; Nathan & Gorman, 1998). Yet given the apparent absence of efficacious treatments with ethnic minorities and alarming mental health disparities, some scholars have argued that data generated from existing clinical trials cannot be generalized beyond European American samples (Bernal, Bonilla, & Bellido, 1995; Bernal & Scharron-Del-Rio, 2001; Hall, 2001; Sue, 1998). In support of this perspective, Chambless and colleagues (1996) reported, “we know of no psychotherapy treatment research that meets basic criteria important for demonstrating treatment efficacy for ethnic minority populations” (p. 7). Similarly, a review of clinical trials used to generate professional mental health treatment guidelines found that *none analyzed the efficacy of treatment by ethnicity or race* (U.S. Department of Health and Human Services, 2001). Other reviewers have been equally pessimistic concerning the availability of efficacious treatments for ethnic minority populations (Gray-Little & Kaplan, 2000; Miranda, Azocar, Organista, Muñoz, & Lieberman, 1996; Tharp, 1991).

Fortunately, a recent look at the literature suggests reason for optimism. Child and adolescent treatment outcome research has increased dramatically in recent decades, giving rise to dozens of randomized controlled trials that evaluate treatment efficacy with ethnic minority youth (or in samples that include ethnic minority youth). This review synthesizes this literature, with a focus on efficacious treatments for ethnic minority youth, particularly those treatments meeting criteria as EBTs. In the first part of this article, a summary of existing support for EBTs with ethnic minority youth is provided. Next, other critical topics that clarify the parameters of treatment efficacy with this population are addressed. Finally, recommendations for clinical practice and treatment outcome research are offered. Whenever possible, aggregate effect size data are used to evaluate key questions about the efficacy of treatment with ethnic minority youth.

SEARCH AND SELECTION CRITERIA

A search using the PsycINFO database (years 1960 through 2006) served as the primary source for study selection. Terms representing treatment (e.g., *psychotherapy, training, modification*), evaluation (e.g., *comparison, effect, outcome*), and youth (e.g., *child, adolescent, boys*) were utilized. This search was supplemented with (a) a manual review of all studies included in youth

treatment outcome meta-analyses published through the year 2006, (b) reference trails (i.e., references in target studies to other controlled trials), and (c) in press and published studies recommended by treatment outcome researchers. Studies were included only if the mean age of participants was 18 years or younger and youth presented with behavioral or emotional problems. Formal psychiatric diagnosis was not required for inclusion because (a) the majority of trials with clinically impaired ethnic minority youth did not assess diagnostic status, (b) many clinic-referred youth do not present with formal diagnoses (e.g., Jensen & Weisz, 2002), and (c) other reviews of youth EBTs have used similar criteria (e.g., Kaslow & Thompson, 1998; Ollendick & King, 1998).

The term *treatment* was broadly defined to incorporate a wide array of interventions for youth. The approach used by Weisz, Weiss, et al. (1995) was adopted who defined treatment as “any intervention to alleviate psychological distress, reduce maladaptive behavior, or enhance adaptive behavior through counseling, structured or unstructured interaction, a training program, or a predetermined treatment plan” (p. 452). Excluded were interventions involving (a) medication only, (b) reading only (i.e., bibliotherapy), (c) teaching or tutoring focusing only on increasing knowledge of a specific subject, (d) relocation only (e.g., moving child to foster home), and (e) treatment exclusively intended to prevent problems in youth also at risk (i.e., primary prevention). Because the focus was on behavioral and emotional problems in youth, also excluded were treatments focusing primarily on (a) reading ability, learning disabilities, and academic concerns; (b) peer rejection or unpopularity; (c) somatic or medical problems (e.g., distress/pain associated with a medical procedure, migraines, obesity, sleep difficulties); and (d) client adherence to a treatment regimen (e.g., diabetes care).

Evidence-Based Treatment Criteria

For this review, the framework originally developed by the Task Force of the American Psychological Association and outlined in Chambless et al. (1998), Chambless et al. (1996), and Chambless and Hollon (1998) was used to guide the identification of EBTs (see Table 1). The guidelines classify treatments as *well-established, probably efficacious, or possibly efficacious*. The first two labels are from Chambless et al. (1998) and Chambless et al. (1996) and the third is from Chambless and Hollon (1998).

Well-established treatments have the highest level of empirical support, requiring at least two high-quality (e.g., random assignment, adequate sample size)

TABLE 1
American Psychological Association Task Force Criteria for
Evidence-Based Treatments

Criteria 1: Well-Established Treatments

1.1 There must be at least two good group-design experiments, conducted in at least two independent research settings and by independent investigatory teams, demonstrating efficacy by showing the treatment to be

a) superior to pill or psychological placebo or to another treatment

OR

b) equivalent to (or not significantly different from) an already established treatment in experiments with statistical power being sufficient to detect moderate differences

AND

1.2 treatment manuals or logical equivalent were used for the treatment

1.3 treatment was conducted with a population, treated for specified problems, for whom inclusion criteria have been delineated in a reliable, valid manner

1.4 reliable and valid outcome assessment measures were used, at minimum tapping the problems targeted for change

1.5 appropriate data analyses

Criteria 2: Probably Efficacious Treatments

2.1 There must be at least two experiments showing the treatment is superior (statistically significantly so) to a wait-list or no treatment control group

OR

2.2 One or more experiments meeting the Well-Established Treatment Criteria with the one exception of having been conducted in at least two independent research settings and by independent investigatory teams

Criterion 3: Possibly Efficacious Treatments

There must be at least one study showing the treatment to be efficacious in the absence of conflicting evidence

Note: Criteria adapted from Division 12 Task Force on Psychological Interventions (Chambless et al., 1998, Chambless et al., 1996) and from Chambless and Hollon (1998).

between-groups trials by different investigative teams showing that treatment is superior to placebo or another treatment, or equivalent to an already established treatment. Probably efficacious treatments require only one high-quality trial comparing treatment to placebo (or alternative treatment) or two trials comparing treatment to no treatment. Finally, possibly efficacious treatments have at least one study showing the treatment to be efficacious but not meet criteria as well-established or probably efficacious.

The second set of criteria, summarized in Table 2, is from Nathan and Gorman (2002, 2007) and was used to evaluate the methodological robustness of a study. Type 1 study designation requires random assignment to treatment conditions, clear inclusion and exclusion criteria, blinded assessments (i.e., assessor or informant was unaware of treatment assignment), “state-of-the-art” diagnostic methods (operationalized here as the use of valid and/or reliable measures), adequate sample size (operationalized as 12 participants per condition;

TABLE 2
Nathan and Gorman (2002) Study Criteria and Considerations for
Ethnic Minority Youth

Nathan and Gorman (2002) Criteria

Type 1 Studies

I. Study must include a randomized prospective clinical trial

II. Study must include comparison groups with random assignment, clear inclusion and exclusion criteria, blind assessments, state-of-the-art diagnostic methods, and adequate sample size for power

III. There must be clearly described statistical methods

Type 2 Studies

Clinical trials must be performed, but some traits of Type 1 study were missing (e.g., inadequate sample size)

Additional Considerations for Evaluation of Studies With Ethnic Minority Youth

The between-group design experiments must include *one or more* of the following characteristics:

A. At least 75% of participants in the overall sample are ethnic minorities, *or*

B. Separate analyses with ethnic minority youth show superiority (statistically significant) to control conditions, *or*

C. Analyses indicate that ethnicity does not moderate key treatment outcomes, or that treatment is effective with ethnic minority youth despite moderator effect(s)

Note: Additional considerations developed exclusively for this review. Nathan and Gorman’s Type 3 to 6 study criteria were not included because they correspond to methodologically less rigorous studies.

Kazdin & Bass, 1989),² and clearly described statistical methods. Type 2 studies included clinical trials that were missing one or more elements of a Type 1 study. Nathan and Gorman (1998) also described Type 3, 4, 5, and 6 studies; however, these criteria were not applied to this review because such studies have serious methodological flaws (e.g., no comparison group).

To evaluate treatments for ethnic minority youth, several additional factors were considered. These features were established solely for this review and do not represent any organization’s (e.g., APA) official guidelines for classifying treatments as evidence-based for ethnic minorities. After EBT criteria were met, an intervention was considered well-established, probably efficacious, or possibly efficacious for ethnic minority youth if supporting studies met one or more of three conditions listed in Table 2 as “additional considerations.” The first was based on the proportion of ethnic minority participants included in the study. Eligibility was met if at least 75% of participants in the EBT study were ethnic minorities (Condition A). Although lower thresholds have been used by some reviewers (e.g., 50% cutoff by Tobler, 1997; 60% cutoff by

²In a meta-analysis of psychotherapy outcome studies, Kazdin and Bass (1989) found a median sample size of 12 per condition, with treatment versus no-treatment comparisons yielding large effects ($M ES = .85$), and treatment versus placebo comparisons yielding small to medium effects ($M ES = .38$).

S. J. Wilson, Lipsey, & Soyden, 2003), the 75% threshold used here (representing a 3:1 ratio of ethnic minority to nonminority participants) provided stronger evidence that treatment effects were applicable to minorities. If most participants were not ethnic minorities, however, a treatment could still meet EBT criteria if either separate analyses with the subset of ethnic minority participants demonstrated superiority of treatment over control/comparison conditions (Condition B), or analyses showed ethnicity did not statistically moderate treatment outcomes (or treatment was efficacious for ethnic minorities despite “ethnicity-as-moderator” effects; Condition C). Thus, statistical evidence that ethnic minority participants benefited from treatment (or did not differ from nonminorities in terms of treatment benefit) was considered when making determinations about EBT status.

Although the Task Force and Nathan and Gorman guidelines apply primarily to *DSM-IV* psychiatric disorders (American Psychiatric Association, 1994), the studies reviewed here include youth with a broad array of clinical syndromes that often do not map onto discrete diagnostic categories (e.g., aggressive behavior, internalizing problems). Indeed, only seven of the efficacy trials summarized here target youth with *DSM* diagnoses. However, given the prior use of these guidelines to identify treatments for maritally distressed couples and other subclinical populations (e.g., Baucom, Shosham, Mueser, Daiuto, & Stickle, 1998; Kaslow & Thompson, 1998), they would appear similarly applicable to the symptom clusters described in this article.

Effect Size Estimation

According to the Task Force and Nathan and Gorman guidelines, treatment efficacy is evident when an intervention is statistically superior to a control condition. However, the treatment *effect size* is of greater clinical and practical importance than statistical significance (e.g., Hinshaw, 2002; Kraemer, Wilson, Fairburn, & Agras, 2002); a treatment may be statistically superior but yield small clinical effects of little practical value to patients, clinicians, or policymakers. Thus, to supplement the narrative review, effect sizes were estimated for each study when adequate data were available.

The effect size statistic represents the standardized difference in outcomes between a treatment and comparison group at posttreatment or follow-up. For continuous outcomes, comparisons were calculated using the standardized mean difference effect size statistic (d), with the pooled standard deviation as the denominator. When means and standard deviations were not available, effect sizes were estimated from other statistics (e.g., t value and df from a t test) when possible (Lipsey & Wilson, 2001). Because d is upwardly

biased when based on small samples (particularly when $N < 20$), Hedges correction for small sample sizes was applied (Hedges & Olkin, 1985). The Cox log odds ratio method (Sanchez-Meca, Marin-Martinez, & Chacon-Moscoso, 2003) was used to transform dichotomous outcomes (e.g., arrests, diagnostic status) into a form equivalent to d . A positive effect size indicated that treatment youth showed more favorable outcomes than comparison youth.

EBTs FOR ETHNIC MINORITY YOUTH

Table 3 summarizes studies evaluating EBTs with ethnic minority youth. Column 1 identifies the investigatory team and publication date. Column 2 corresponds to the study's participant characteristics (sample size, age, gender, and ethnicity), including whether the youth presented with clinically significant problems. A clinically significant problem was operationally defined as one of the following: a clinical diagnosis, referral to a mental health facility, having a score in the “clinical” range on a standardized scale, multiple referrals to a school office or principal for problem behavior, or out-of-home placement (e.g., arrest, residence in group home). Column 3 specifies treatment assignment/procedures, treatment modality (e.g., individual, group, multicomponent), therapist background, treatment setting, and whether or not treatment was manualized. Column 4 specifies the outcome measures.

Column 5 describes the main findings and corresponding effect size coefficients, but only for those outcomes directly relevant to referral problems (e.g., if youth were referred for anxiety disorders, outcomes representing posttreatment fear or internalizing symptoms would be presented, but externalizing symptoms would not). However, when youth were referred for unspecified and/or a broad array of problems, outcomes for all youth symptoms were presented (e.g., Rowland et al., 2005; Weiss, Harris, Catron, & Han, 2003). Finally, column 6 specifies the EBT classification status, type of study (1 or 2 based on Nathan & Gorman, 2002), and which ethnic minority eligibility criteria were met. Note that no treatments summarized in this review met criteria as well-established for ethnic minority youth.

To establish interrater reliability for the Task Force and Nathan and Gorman criteria, studies representing 10 randomly selected treatments (of the 30 total treatments summarized in Table 3) were independently coded by the two authors. The kappa statistic was used to assess agreement between coders. The kappa was .80 for the Task Force criteria (probably efficacious vs. possibly efficacious) and .63 for the Nathan and Gorman criteria (Type 1 vs. Type 2).

TABLE 3
Controlled Trials of Evidence-Based Treatments for Ethnic Minority Youth

| Supporting Studies | Participant Characteristics | Treatment Characteristics | Outcome Measure, Source, and Assessment Period | Target Outcomes and Effect Size | Study Type and Ethnic Minority Eligibility |
|---|--|--|---|---|---|
| Anxiety-related problems | | | | | |
| <p><i>Possibly Efficacious Treatments</i></p> <p>Silverman et al., 1999</p> | <p><i>N</i> = 56. Ages 6 to 16 years (<i>M</i> = 9.96). 61% male. 46% White, 46% Hispanic/Latino, 7% other ethnicity.</p> <p>CSP: Yes. DSM diagnosis of Social Phobia, OD, or GAD.</p> | <p>Randomly assigned to GCBT or WLC.</p> <p>Modality: Group</p> <p>Therapists: Professional therapists and graduate students</p> <p>Setting: University clinic</p> <p>Manual: Yes.</p> | <p>Anxiety: Self- and parent report of anxiety on RCMAS; self- and parent-report of fear on the FSSC-R. Self- and parent report of anxiety disorders from ADIS.</p> <p>Symptom Severity: Clinician rating of symptom severity from ADIS; Parent rating of symptom severity.</p> <p>Posttreatment assessment only.</p> | <p>For youth and caregiver RCMAS anxiety, and clinician and parent severity rating, GCBT led to greater symptom reduction than WLC. No treatment differences for self- and parent report of fear on FSSC-R.</p> <p>ES: <i>d</i> = 1.09.</p> | <p>Nathan & Gorman: Type 1</p> <p>Task Force: Possibly Efficacious.</p> <p>Minority Condition: C (Ethnicity did not moderate outcomes).</p> |
| <p>Ginsburg & Drake, 2002</p> | <p><i>N</i> = 12. Age 14–17 years (<i>M</i> = 15.6). 17% male. 100% African American.</p> <p>CSP: Yes. DSM-IV criteria for anxiety disorder.</p> | <p>Randomly assigned to CBT or ASC.</p> <p>Modality: Group</p> <p>Therapists: Graduate students</p> <p>Setting: School</p> <p>Manual: Yes.</p> | <p>Anxiety: CIR from Diagnostic interview w/youth via ADIS; Self-report on SCARED and SAS-A.</p> <p>Posttreatment assessment only.</p> | <p>CBT led to lower CIR and SCARED anxiety than ASC.</p> <p>No treatment differences for SAS-A anxiety.</p> <p>ES: <i>d</i> = .71.</p> | <p>Nathan & Gorman: Type 2</p> <p>(<i>n</i> < 12 per condition)</p> <p>Task Force: Possibly Efficacious</p> <p>Minority Condition: A.</p> |
| <p>Wilson & Rotter, 1986</p> | <p><i>N</i> = 54. 6th & 7th grade youth. 56% male. 89% Black, 11% White.</p> <p>CSP: No. Test anxiety score in upper third of students.</p> | <p>Randomly assigned to AMT, SST, M-AMT, AP, or NCC.</p> <p>Modality: Group</p> <p>Therapists: Not specified</p> <p>Setting: School</p> <p>Manual: Yes</p> | <p>Test Anxiety: Self-report on TASC.</p> <p>Posttreatment and follow-up (2 months) assessments</p> | <p>TASC Test Anxiety at posttreatment and follow-up: AMT, M-AMT, and SST more effective than AP and NCC. AMT, M-AMT, and SST did not differ from one another. AP and NCC did not differ from one another.</p> <p>Posttreatment ES:</p> <p><i>d</i> = 1.29 (amt vs.ap)</p> <p><i>d</i> = 1.44 (sst vs. ap)</p> <p><i>d</i> = 1.92 (m-amt vs. ap)</p> <p><i>d</i> = 1.02 (amt vs.ncc)</p> <p><i>d</i> = 1.20 (sst vs. ncc)</p> <p><i>d</i> = 1.73 (m-amt vs. ncc)</p> <p><i>d</i> = -.07 (amt vs. sst)</p> <p><i>d</i> = -.50 (amt vs. m-amt)</p> <p><i>d</i> = -.49 (sst vs. m-amt).</p> <p>Follow-up ES: Insufficient data for effect size.</p> | <p>Nathan & Gorman: Type 2</p> <p>(<i>n</i> < 12 per condition).</p> <p>Task Force: AMT, SST, & M-AMT Possibly Efficacious</p> <p>Minority Condition: A.</p> |

Depression

Cognitive-Behavioral Therapy and Interpersonal Psychotherapy—Probably Efficacious and Possibly Efficacious

Rossello & Bernal, 1999 *N* = 71. Age 13–17 years (*M* = 14.7). 46% male. 100% from Puerto Rico.
Modality: Individual
Therapists: Graduate students
Setting: University clinic
Manual: Yes.

At posttreatment, CBT and IPT lower depression than WLC. CBT and IPT did not differ. At follow-up, CBT and IPT did not differ.
Posttreatment ES:
 $d = .34$ (cbt vs. wlc)
 $d = .74$ (ipt vs. wlc);
 $d = -.34$ (cbt vs. ipt)
Follow-up ES:
 $d = .56$ (cbt vs. ipt)

Nathan & Gorman: Type 1
Task Force: CBT
 Probably Efficacious & IPT Possibly Efficacious.
Minority Condition: A.

Rossello, Bernal, & Rivera-Medina, *in press*
N = 112. Age 12–18 years (*M* = 14.5). 45% male. 100% from Puerto Rico.
CSP: Yes. *DSM* diagnosis of major depression (66%); or clinically impaired with score of 13 or higher on the CDI (34%).

Randomly assigned to CBT-I, CBT-G, IPT-I, IPT-G. Groups combined to form one CBT condition and one IPT condition.
Modality: Individual & Group
Therapists: Graduate students
Setting: University clinic.
Manual: Yes.

At posttreatment, CBT led to greater reductions in depression than IPT.
 $d = .36$ (cbt vs. ipt)

Nathan & Gorman: Type 1
Task Force: CBT
 Probably Efficacious & IPT Possibly Efficacious.
Minority Condition: A.

Conduct problems

Multisystemic Therapy—Probably Efficacious

Borduin et al., 1995 *N* = 176. Age 12–17 years (*M* = 14.8). 68% male. 70% White, 30% African American.
CSP: Yes. Juvenile offenders with average of 4.2 prior arrests.

Randomly assigned to MST or IT.
Modality: Family-based multicomponent
Therapists: Graduate students
Setting: Home & community
Manual: Yes.

MST youth arrested less often than IT youth.
ES: $d = 1.18$

Nathan & Gorman: Type 2
 (blind assessment unclear).
Task Force: Probably Efficacious.
Minority Condition: C
 (Ethnicity did not moderate outcomes).

Schaeffer & Borduin, 2005 (Long-term follow-up of Borduin et al., 1995) *N* = 165. Ages 12 to 17 years (*M* = 13.7) (Average age at follow-up was 28.8 years). 69% male. 22% African American & 76% White.
CSP: Yes. Juvenile offenders with average of 3.9 prior arrests.

Randomly assigned to MST or IT.
Modality: Family-based multicomponent
Therapists: Graduate students
Setting: Home & community
Manual: Yes.

MST more effective than IT at reducing number of arrests, and days in adult confinement, and somewhat more effective at reducing days sentenced to adult probation.
ES: $d = .37$.

Nathan & Gorman: Type 2
 (blind assessment unclear).
Task Force: Probably Efficacious.
Minority Condition: C
 (Ethnicity did not moderate outcomes).

(Continued)

TABLE 3
Continued

| <i>Supporting Studies</i> | <i>Participant Characteristics</i> | <i>Treatment Characteristics</i> | <i>Outcome Measure, Source, and Assessment Period</i> | <i>Target Outcomes and Effect Size</i> | <i>Study Type and Ethnic Minority Eligibility</i> |
|--|--|--|---|--|--|
| Henggeler et al., 1992 | N = 84. Average age 15.2 years. 77% male. 56% African American, 42% Caucasian, 2% Hispanic-American. CSP: Yes. Juvenile offenders with average of 3.5 prior arrests. | Randomly assigned to MST or US. <i>Modality</i> : Family-based multicomponent <i>Therapists</i> : Not stated <i>Setting</i> : Home & community <i>Manual</i> : Yes. | <i>Delinquent Behavior</i> : Self-report on SRDS. <i>Arrest/Incarceration</i> : Archival records. Posttreatment assessment (average 59 weeks for arrests/ incarceration) only | MST led to lower posttreatment delinquency, arrests, and incarceration than US. ES: $d = .54$ | <i>Nathan & Gorman</i> : Type 2 (blind assessment unclear). <i>Task Force</i> : Probably Efficacious. <i>Minority Condition</i> : C (Ethnicity did not moderate outcomes). |
| Henggeler et al., 1997 | N = 155. Ages 10.4 to 17.6 years (M = 15.2). 82% male. 81% African American, 19% Caucasian. CSP: Yes. Violent and chronic juvenile offenders. | Randomly assigned to MST or US. <i>Modality</i> : Family-based multicomponent. <i>Therapists</i> : Professional therapists <i>Setting</i> : Home & community <i>Manual</i> : Yes. | <i>Delinquent Behavior</i> : Self-report on SRDS. <i>Arrest/Incarceration</i> : Archival records. Posttreatment assessment (delinquent behavior) and 1.7 year follow-up (arrests and incarceration) | MST youth were incarcerated for fewer days than US youth. No treatment differences for SRDS delinquent behavior or number of arrests Posttreatment ES: $d = .34$. Follow-up ES: $d = .28$. | <i>Nathan & Gorman</i> : Type 2 (blind assessment unclear) <i>Task Force</i> : Probably Efficacious. <i>Minority Condition</i> : A. |
| Henggeler et al., 2002 (4-year follow-up of Henggeler, Pickrel, et al., 1999) | N = 80. Average age of 15.7 years (at pre-treatment). 76% male. 60% African American, 40% White. CSP: Yes. Diagnosis with substance abuse or dependence disorder; juvenile offenders on formal or informal probation; average of 2.9 prior arrests. | Randomly assigned to MST or UCS <i>Modality</i> : Family-based multicomponent <i>Therapists</i> : Professional therapists <i>Setting</i> : Home & community <i>Manual</i> : Yes. | <i>Aggressive crimes</i> : Self-report on SRDS and archival records. <i>Property crimes</i> : Self-report on SRDS and archival records. Follow-up (4-year) assessment only | MST led to greater reductions in aggressive crimes based on self-report and archival data. No treatment differences in property crimes. (see below for drug use outcomes) ES: $d = .24$ | <i>Nathan & Gorman</i> : Type 2 (blind assessment unclear) <i>Task Force</i> : Probably Efficacious. <i>Minority Condition</i> : C (Ethnicity did not moderate outcomes). |
| <i>Coping Power—Probably Efficacious and Possibly Efficacious</i> Lochman & Wells, 2004 | N = 183. 5th and 6th grade youth. 100% male. 61% African American, 38% White, 1% other. CSP: No. TRF T-score at least 60; rating in top 22% in aggression & disruptiveness. | Randomly assigned to Coping Power with child only (CI), Coping Power with child + parent (CPI), or control (C – services as usual within school) <i>Modality</i> : Group and parent <i>Therapists</i> : Professional therapists <i>Setting</i> : School <i>Manual</i> : Yes. | <i>Overt and covert delinquency</i> : self-report on delinquency section of NYS. <i>Behavioral improvement at school</i> : teacher rating on two items. Follow-up (1-year) assessment only | CPI superior to C at reducing covert delinquency. CI and C did not differ. No treatment effects for overt delinquency. CPI and CI superior to C at improving school behavior. ES: $d = .24$ (CPI vs. C) $d = .14$ (CI vs. C) $d = .12$ (CPI vs. CI) | <i>Nathan & Gorman</i> : Type 1. <i>Task Force</i> : CPI Probably Efficacious. <i>Minority Condition</i> : C (Ethnicity did not moderate outcome for covert delinquency; however, for White but not African American youth, CPI & CI led to greater school behavior improvement than C). |

| | | | | | |
|--|---|---|--|--|--|
| Lochman & Wells, 2003 [1 year follow-up from Lochman & Wells, 2002b] | N = 213. Fifth grade youth. 60% male. Percentage African American by condition: 75% CPCL; 78% CP; 78% CL; 81% C; Two were Hispanic and remainder Caucasian. CSP: No. 31% most aggressive and disruptive youth based on teacher ratings. | Randomly assigned to CPCL, CP, CL, C. Modality: Group and parent (for CP) Therapists: Professional therapists. Setting: School, community centers, and "research offices" Manual: Yes | Delinquency: Self-report of delinquency using items from NYS. Aggression: Teacher ratings on aggression scale of TOCA-R. Follow-up (1 year) assessment only | CPCL and CP led to lower delinquency than C. CL and C did not differ. CPCL and CP did not differ. CPCL led to lower school aggression than C. CP and CL did not differ from C. CPCL and CP did not differ. ES: $d = .24$ (cpcl vs. c) $d = .31$ (cp vs. c) $d = .16$ (cl vs. c) $d = -.07$ (cpcl vs. cp) $d = .09$ (cpcl vs. cl) $d = .16$ (cp vs. cl) | Nathan & Gorman: Type 1. Task Force: CP Probably Efficacious. Minority Condition: A & C (Ethnicity did not moderate the effects of treatment on delinquency or aggression). |
| Lochman et al., 1993 | N = 52. 4th grade children. 52% 100% African American. CSP: No. Aggressive and/or rejected based on peer nominations (1 standard deviation above mean) | Aggressive-rejected and rejected only youth randomly assigned to Social Relations Training or No Treatment Control. Thus 4 conditions: ARI, RI, ARC, and RC. Modality: Individual & group Therapists: Mixed-Professional therapists & graduate students Setting: School Manual: Not specified | Aggressive Behavior: Teacher rating of aggressive behavior on TBC; Aggression from peer nomination ratings. Peer Rejection: Teacher rating of rejection by peers on TBC; Social acceptance and social preference from peer nomination ratings. Posttreatment and 1-year follow-up assessments. | At posttreatment, ARI showed lower teacher-rated aggression, lower teacher-rated rejection, and more positive peer-rated social acceptance than ARC. Also, ARI showed somewhat lower peer-rated aggression than ARC. RI and RC did not differ. At follow-up, ARI showed lower teacher-rated aggression than ARC. No other significant effects. Insufficient data for effect size. | Nathan & Gorman: Type 2 (blind assessment unclear). Task Force: Possibly Efficacious. Minority Condition: A. |
| Brief Strategic Family Therapy-Probably Efficacious Santisteban, Coatsworth, et al., 2003 | N = 126. Ages 12 to 18 years ($M = 15.6$). 75% male. 100% Hispanic (51% Cuban, 14% Nicaraguan, 10% Colombian, 6% Puerto Rican, 3% Peruvian, 2% Mexican, 14% other Hispanic). CSP: Yes. Referred to clinic by self or others; 94% scored in clinical range on RBPC. | Randomly assigned to BFST or GC. Modality: Family Therapists: Professional therapists Setting: Not specified Manual: Yes. | Behavior Problems: Self-report of conduct disorder on RBPC; self-report of socialized aggression on RBPC Posttreatment assessment only | For conduct disorder and socialized aggression, BFST led to greater symptom reduction. ES: $d = .26$ | Nathan & Gorman: Type 1 Task Force: Probably Efficacious. Minority Condition: A. |

(Continued)

TABLE 3
Continued

| Supporting Studies | Participant Characteristics | Treatment Characteristics | Outcome Measure, Source, and Assessment Period | Target Outcomes and Effect Size | Study Type and Ethnic Minority Eligibility |
|---------------------------------------|---|--|---|---|--|
| Szapocznik, Santisteban, et al., 1989 | <i>N</i> = 79. Ages 6 to 12 years (<i>M</i> = 9.44). 71% male. 100% Hispanic (76% Cuban). CSP: Yes. Referred to clinic for child with behavioral (77%) or psychological (23%) problem. | Randomly assigned to FET (a form of BSFT) or MCC. Modality: Family Therapists: Professional therapists. Setting: Not specified. Manual: Yes. | Conduct problems, "personality problems," "inadequacy-immaturity," and "socialized delinquency." Mother report on BPC. Posttreatment assessment only. | FET led to greater reductions in conduct problems, "personality problems," and "inadequacy-immaturity." No treatment effect on socialized delinquency. Insufficient data for effect size. | Nathan & Gorman: Type 1. Task Force: Probably Efficacious. Minority Condition: A. |
| Other Probably Efficacious Treatments | | | | | |
| Block, 1978 | <i>N</i> = 40. Average age 16.1 years. 48% male. Ethnicity described as "Black and Hispanic." CSP: Yes. Office referrals and "Dean's cards" for disruptive classroom behavior. | Randomly assigned to REE, HRT, or C Modality: Group Therapists: Professional therapists Setting: School Manual: Yes. | Disruptive behavior: Teacher ratings based on standardized observations. Class cuts: archival records. Posttreatment and follow-up (4-month) assessment. | REE led to greater improvement (i.e., reductions in disruptive behavior and class cutting) than HRT and C, at posttreatment and follow-up. Posttreatment ES: <i>d</i> = 3.57 (ree vs. c) <i>d</i> = .04 (hrt vs. c) <i>d</i> = 3.90 (ree vs. hrt) Follow-up ES: <i>d</i> = 3.98 (ree vs. c) <i>d</i> = -.28 (hrt vs. c) <i>d</i> = 4.05 (ree vs. c) | Nathan & Gorman: Type 2 (blind assessment unclear). Task Force: Probably Efficacious. Minority Condition: A. |
| Garza & Bratton, 2005 | <i>N</i> = 29. Ages 5 to 11 years. 57% male. 100% Mexican-American. CSP: Yes. School counseling referral by parents and teachers for behavior problems and scored in "at-risk" or "clinically significant" range on Behavior Assessment Scale. | Randomly assigned to CCPT or SGC. Modality: Individual Therapists: Professional therapists Setting: School Manual: Yes. | Externalizing Problems: parent and teacher ratings of externalizing behavior problems on the BASC. | CCPT led to greater reduction in parent-rated externalizing problems than SGC. No treatment effects for teacher-rated externalizing problems. ES: <i>d</i> = .25 | Nathan & Gorman: Type 2 (blind assessment unclear). Task Force: Probably Efficacious. Minority Condition: A |
| Hudley & Graham, 1993 | <i>N</i> = 72. Mean age 10.5 years. 100% male. 100% African American. CSP: No. Above median teacher ratings of aggression, positive peer aggression ratings, and negative peer preference. | Randomly assigned to AI, AT, or C. Modality: Group Therapists: Teachers Setting: School Manual: Yes. | Aggression: Teacher rating on aggression and reactive aggression scales of Coie Teacher Checklist. Office referrals for disciplinary action: School archives Posttreatment assessment only. | AI youth showed greater reductions in aggression and reactive aggression than AT or C youth. No treatment effect for office referrals. Insufficient data for effect size. | Nathan & Gorman: Type 1 Task Force: Probably Efficacious Minority Condition: A. |

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|---|---|---|---|---|---|
| Snyder et al., 1999 | <i>N</i> = 50. Described as "adolescents," 56% male, 2% Asian, 50% African American, 22% White, 16% Hispanic, & 10% Mixed Ethnicity. CSP: Yes. Admitted to psychiatric hospital. Score of 75% or higher on Anger scale of STAXI. Angry thoughts/ feelings, disruptive behavior, or dyscontrol of anger. | Randomly assigned to AMGT or PV. <i>Modality:</i> Group <i>Therapists:</i> Professional therapists <i>Setting:</i> Hospital <i>Manual:</i> Yes | <i>Antisocial behavior:</i> teacher rating on Antisocial Behavior scale of the SSBS & nurse rating on Antisocial Behavior scale of the HCSBS. Posttreatment assessment only. | AMGT youth showed less teacher- and nurse-rated antisocial behavior than PV youth. <i>ES: d</i> = .58. | <i>Nathan & Gorman:</i> Type 1. <i>Task Force:</i> Probably Efficacious. <i>Minority Condition:</i> A. |
| <i>Possibly Efficacious Treatments</i> De Anda, 1985 | <i>N</i> = 35. 7th and 8th grade youth. 100% female. Ethnicity described as "Black and Hispanic." CSP: Yes. High tardiness rates and 4 or more referrals to counselor or vice-principal's office. | Randomly assigned to SPS or NPS. <i>Modality:</i> Group <i>Therapists:</i> Professional therapists <i>Setting:</i> School <i>Manual:</i> Yes. | <i>Grades in cooperation, grades in work habits, tardiness, and referral to counselor or vice-principal:</i> Apparently derived from school records. Posttreatment assessment only. | SPS led to fewer referrals to counselors or vice-principal than NPS. No treatment effects for cooperation, work habits, or tardiness. <i>ES: d</i> = .48 | <i>Nathan & Gorman:</i> Type 2 (validity/reliability of archival data and blind assessment unclear). <i>Task Force:</i> Possibly Efficacious. <i>Minority Condition:</i> A. |
| Forman, 1980 | <i>N</i> = 18. Ages 8 to 11 years. 78% male. 89% Black, 11% White. CSP: Yes. Referrals made to school psychologist for aggressive behavior. | Randomly assigned to CR, RC, or PC. <i>Modality:</i> Group <i>Therapists:</i> Graduate students <i>Setting:</i> School <i>Manual:</i> Not specified | <i>Aggressive behavior:</i> teacher records of aggressive behavior <i>Problem behavior in classroom:</i> teacher ratings on Classroom Disturbance and Disrespect-Defiance subscales of DESBRS; inappropriate behaviors and inappropriate interactions from SCAN observational coding system. Posttreatment assessment only. | CR superior to PC at decreasing inappropriate interactions. CR and RC did not differ significantly from each other; neither did RC and PC. RC superior to CR and PC at decreasing teacher-rated aggression. CR and PC did not differ. RC superior to PC at decreasing classroom disturbance. Neither RC and CR, nor CR and PC differed significantly. Insufficient data for effect size. | <i>Nathan & Gorman:</i> Type 2 (<i>n</i> < 12 per condition; blind assessment unclear). <i>Task Force:</i> Possibly Efficacious. <i>Minority Condition:</i> A. |

(Continued)

TABLE 3
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| Supporting Studies | Participant Characteristics | Treatment Characteristics | Outcome Measure, Source, and Assessment Period | Target Outcomes and Effect Size | Study Type and Ethnic Minority Eligibility |
|-------------------------|---|--|--|--|---|
| Stuart et al., 1976 | <i>N</i> = 102. 6th–10th grade. 67% male, 34% Black, 66% White. CSP: Yes. Youth referred for counseling services by counselors and school principals. | Randomly assigned to BC or WLC. Modality: Parent and teacher Therapists: Not specified Setting: Not specified Manual: Not specified. | School grades & days absent: based on “teachers, referral agents, and parents.” School behavior problems: Ratings by teacher, counselor/assistant principal, mother, and father on unspecified scale. Home behavior: Ratings by mother and father on unspecified scale. Post treatment assessment only | For counselor/vice-principal-, teacher-, father-, and mother-rated school behavior, BC more effective than WLC. No treatment differences in father- or mother-rated home behavior. Insufficient data for effect size. | Nathan & Gorman: Type 2 (validity/reliability of measures and blind assessment unclear). Task Force: Possibly Efficacious Minority Condition: B (For Black youth, BC superior to WLC for grades, counselor- and teacher-rated school behavior, and mother-rated home behavior. For White youth, BT superior to WLC for father-rated school behavior). |
| W. C. Huey & Rank, 1984 | <i>N</i> = 48. 8th- and 9th- grade youth. 100% male, 100% Black. CSP: Yes. Referred by teachers to school administrator for chronic classroom disruption. | Randomly assigned to CAT, PAT, CDG, PDG, C Modality: Group Therapists: Professional therapists Setting: School Manual: Yes. | Aggression: Teacher rating on Acting-Out subscale of the WPBIC. Posttreatment assessment only | CAT youth showed less classroom aggression than CDG, PDG, and C. PAT youth showed less classroom aggression than CDG and C, but did not differ from PDG. CAT and PAT did not differ from one another. ES: <i>d</i> = 1.17 (cat vs. cdg) <i>d</i> = 1.32 (cat vs. c) <i>d</i> = 1.17 (pat vs. pdg) <i>d</i> = 1.12 (pat vs. c) <i>d</i> = .20 (cat vs. pat) | Nathan & Gorman: Type 2 (<i>n</i> < 12 per condition; blind assessment unclear). Task Force: CAT and PAT Possibly Efficacious Minority Condition: A. |

Substance use problems

| | | | | | |
|--|--|--|--|---|--|
| <p><i>Multidimensional Family Therapy—Probably Efficacious</i> Little et al., 2004</p> | <p><i>N</i> = 80. Ages 11–15 years (<i>M</i> = 13.73). 73% male. 42% Hispanic, 38% African American, 11% Haitian or Jamaican, 3% non-Hispanic White, 4% other ethnicity. CSP: Yes. Referred for outpatient treatment for substance use problem.</p> | <p>Randomly assigned to MDFT or PGT. <i>Modality</i>: Family-based multicom- ponent <i>Therapists</i>: Professional therapists <i>Setting</i>: Community clinic <i>Manual</i>: Yes.</p> | <p><i>Marijuana Use</i>: Youth self- report using TLFB. Posttreatment assessment only</p> | <p>MDFT led to greater decrease in cannabis use than PGT. ES: <i>d</i> = 1.27</p> | <p><i>Nathan & Gorman</i>: Type 1. <i>Task Force</i>: Probably Efficacious. <i>Minority Condition</i>: A.</p> |
| <p><i>Possibly Efficacious Treatment</i> Henggeler, Pickrel, et al., 1999</p> | <p><i>N</i> = 118. Ages 12–17 years (<i>M</i> = 15.7). 79% male. 50% African American, 47% Caucasian, 1% Asian, 1% Hispanic, 1% Native American. CSP: Yes. Diagnosis with sub- stance abuse or dependence dis- order; juvenile offenders on formal or informal probation; average of 2.9 prior arrests.</p> | <p>Randomly assigned to MST or UCS. On average, UCS youth received only minimal mental health or substance abuse services. <i>Modality</i>: Family-based multicom- ponent <i>Therapists</i>: Professional therapists <i>Setting</i>: Home & community <i>Manual</i>: Yes.</p> | <p><i>Drug Use</i>: Self-report of alcohol/marijuana use and “other” drug use on PEI; marijuana and cocaine use from urine screen. Posttreatment and follow- up (6-month) assessment</p> | <p>At posttreatment, MST led to greater reductions in self-report of alcohol/ marijuana and “other” drug use than UCS. No treatment effects for PEI alcohol/marijuana or “other” drug use at follow-up. No treatment effects for urine screen marijuana or cocaine use at posttreatment or follow-up.</p> | <p><i>Nathan & Gorman</i>: Type 2 (blind assessment unclear) <i>Task Force</i>: Possibly Efficacious <i>Minority Condition</i>: C (Ethnicity did not moderate outcomes).</p> |
| <p>Henggeler et al. 2002 [4-year follow-up of Henggeler, Pickrel, et al., 1999]</p> | <p><i>N</i> = 80. Average age of 15.7 years (at pretreatment). 76% male. 60% African American, 40% White. CSP: Yes. Diagnosis with sub- stance abuse or dependence dis- order; juvenile offenders on formal or informal probation; average of 2.9 prior arrests.</p> | <p>Randomly assigned to MST or UCS <i>Modality</i>: Family-based multicom- ponent <i>Therapists</i>: Professional therapists <i>Setting</i>: Home & community <i>Manual</i>: Yes.</p> | <p><i>Drug use</i>: Self-report of marijuana and cocaine use based on composite of items from YAS, ASI, and YRBS; marijuana and cocaine use based on biological indicators (urine and hair samples). Follow-up (4-year) assess- ment only</p> | <p>MST youth showed greater marijuana abstinence than UCS based on biological indicators. No differences in marijuana use based on self-report. No differences in cocaine use based on self-report or biological indicators. (see above for delinquency outcomes) ES: <i>d</i> = .28</p> | <p><i>Nathan & Gorman</i>: Type 2 (blind assessment unclear) <i>Task Force</i>: Possibly Efficacious. <i>Minority Condition</i>: C (Ethnicity did not moderate outcomes).</p> |

(Continued)

TABLE 3
Continued

| Supporting Studies | Participant Characteristics | Treatment Characteristics | Outcome Measure, Source, and Assessment Period | Target Outcomes and Effect Size | Study Type and Ethnic Minority Eligibility |
|---|---|---|--|--|---|
| Trauma-related problems | | | | | |
| <i>Resilient Peer Treatment—Possibly Efficacious</i> Fantuzzo et al., 1996 | <i>N</i> = 46 (22 abused or neglected). Ages 3.8 to 5.1 years (<i>M</i> = 4.46). 41% male. 100% African American. <i>CSP</i> : No. Socially withdrawn relative to classmates, based on teacher ratings and classroom observation. | Maltreated and nonmaltreated youth randomly assigned to RPT or AC. <i>Modality</i> : Peer pairing <i>Therapists</i> : High functioning peers & parent “play supports” <i>Setting</i> : School <i>Manual</i> : Not specified | <i>Interactive play, social attention, solitary play, and nonplay</i> : IPPOCS coding system. <i>Self-control, interpersonal skill, & verbal assertiveness</i> : teacher rating on SSRS Posttreatment assessment only | RPT youth showed more interactive play, less solitary play, greater self-control, and higher interpersonal skills than AC youth. No treatment differences on social attention, nonplay, or verbal assertion. <i>ES</i> : <i>d</i> = .81 | <i>Nathan & Gorman</i> : Type 1 <i>Task Force</i> : Probably Efficacious. <i>Minority Condition</i> : A. |
| Fantuzzo et al., 2005 | <i>N</i> = 82 (37 maltreated). Average age of 4.35 years. 50% male. 100% African American. <i>CSP</i> : No. Youth “socially withdrawn” relative to classmates, based on teacher ratings and classroom observation. | Maltreated and nonmaltreated youth randomly assigned to RPT or AC. <i>Modality</i> : Peer pairing <i>Therapists</i> : High functioning peers & parent “play supports” <i>Setting</i> : School <i>Manual</i> : Not specified | <i>Collaborative play, associative play, social attention, & solitary play during</i> : “Play Corner” and “Free-Play” observations IPPOCS coding system. <i>Play interaction, play disruption, & play disconnection</i> : teacher rating on PIPPS. <i>Self-control, interpersonal skills, & verbal assertiveness</i> : teacher rating on SSRS Posttreatment assessment only | For Play Corner observations, RPT youth showed more collaborative play and less solitary play than AC youth. No treatment differences for associative play or social attention. For Free-Play observations, RPT youth showed more collaborative play and less solitary play than AC youth. No treatment differences for associative play or social attention. For teacher ratings, RPT youth show more play interaction, less play disruption, less play disconnection, more self-control, and more interpersonal skills than AC youth. No treatment differences for verbal assertion. <i>ES</i> : <i>d</i> = .49 | <i>Nathan & Gorman</i> : Type 1. <i>Task Force</i> : Probably Efficacious. <i>Minority Condition</i> : A. |

Trauma-Focused Cognitive-Behavioral Therapy—Probably Efficacious

Cohen et al., 2004
N = 203. Ages 8–14 years
 (*M* = 10.76). 21% male. 60% White, 28% African American, 4% Hispanic American, 7% Biracial, 1% Other.
CSP: Yes. Clinic-referral; 89% met full criteria for PTSD.

Randomly assigned to TF-CBT or CCT.
Modality: Parent, youth, & joint
Therapists: Professional therapists
Setting: University clinics
Manual: Yes.

PTSD: Reexperiencing, avoidance, and hypervigilance symptoms from K-SADS diagnostic interview.
 Posttreatment assessment only
ES: *d* = .53

TF-CBT led to fewer PTSD reexperiencing, avoidance, and hypervigilance symptoms.
Nathan & Gorman: Type 1.
Task Force: Probably Efficacious
Minority Condition: C (Ethnicity [ethnic minority vs. non-minority] did not moderate treatment effects).

Possibly Efficacious Treatments

Clark et al., 1998
N = 131. Ages 7–15 years. 60% male. 62% Caucasian, 34% African American, 2% Hispanic, 2% biracial.
CSP: Yes. Abused/neglected youth in state custody experiencing emotional and behavioral disturbances defined by screen.

Randomly assigned to FIAP or SP.
Modality: Family-based multicomponent
Therapists: Professional therapists.
Setting: Therapists served youth “across all settings”
Manual: Not Specified.

Placement outcomes: Time in permanency setting (e.g., with parents, adoptive home), number of runaways, and days incarcerated obtained through archival records.
School outcomes: Days absent from school, percentage days suspended, and school-to-school movement obtained through archival records
Behavior problems: Externalizing, internalizing, and total problem behaviors obtained through self-report on YSR and caregiver report on CBCL.
 Posttreatment (average of 3.5 years post-study entry) assessment only

FIAP more successful than SP at increasing time in permanency setting, reducing runaway behavior and days incarcerated. No treatment effects on school placement outcomes.
 Compared with SP, fewer FIAP youth were in the externalizing behavior clinical range at posttreatment. No treatment differences for internalizing or total behavior problems
 Insufficient data for effect size.

Nathan & Gorman: Type 1.
Task Force: Possibly Efficacious
Minority Condition: C (Treatment outcomes were not moderated by ethnicity [ethnic minority {89% African American} vs. Caucasian]).

(Continued)

TABLE 3
Continued

| <i>Supporting Studies</i> | <i>Participant Characteristics</i> | <i>Treatment Characteristics</i> | <i>Outcome Measure, Source, and Assessment Period</i> | <i>Target Outcomes and Effect Size</i> | <i>Study Type and Ethnic Minority Eligibility</i> |
|---|---|--|---|--|--|
| Stein et al., 2004 | <i>N</i> = 106. Approximately 80% born in U.S. to Mexican immigrants. For Experimental: Average age of 11.0 years. 67% male. For Control: Average age of 10.9 years. 62% male. CSP: Yes. Exposure to violence and PTSD symptoms in the clinical range. | Randomly assigned to CBITS or WLC. <i>Modality</i> : Group <i>Therapists</i> : Professional therapists <i>Setting</i> : School <i>Manual</i> : Yes. | <i>PTSD symptoms</i> : self-report on CPSS Posttreatment assessment only | CBITS youth showed greater reductions in PTSD symptoms than WLC youth Insufficient data for effect size. | <i>Nathan & Gorman</i> : Type I. <i>Task Force</i> : Possibly Efficacious. <i>Minority Condition</i> : A. |
| Mixed/co-morbid clinical problems | | | | | |
| <i>Multisystemic Therapy—Probably Efficacious</i> Rowland et al., 2005 | <i>N</i> = 31. Average age of 14.5 years. 58% male. 84% multiracial (combinations of Asian, Caucasian, & Pacific Islander), 10% Caucasian, 7% Asian/Pacific Islander. CSP: Yes. Clinic-referred; 94% DSM diagnosis; out-of-home placement imminent. | Randomly assigned to MST or US. <i>Modality</i> : Family-based multicomponent <i>Therapists</i> : Professional therapists <i>Setting</i> : Home & community <i>Manual</i> : Yes. | <i>Externalizing problems</i> : CBCL caregiver report; CBCL youth report. <i>Internalizing problems</i> : CBCL caregiver report; CBCL youth report. <i>Danger to self/others</i> : YRBS self-report. <i>Drug use</i> : PEI self-report. <i>Delinquency</i> : SRDS self-report minor delinquency; SRDS self-report Index offenses. <i>Number of arrests, days in school setting, & out-of-home placement</i> : Archival records. Posttreatment assessment (6 months after referral) only | MST led to greater reductions in youth CBCL externalizing and internalizing problems, SRDS minor delinquency, and days in out-of-home placement. No treatment differences in caregiver CBCL externalizing & internalizing problems, dangerousness to self/others, drug use, SRDS index offenses, number of arrests, and days in school. <i>ES</i> : <i>d</i> = .10 | <i>Nathan & Gorman</i> : Type I. <i>Task Force</i> : Probably Efficacious. <i>Minority Condition</i> : A. |

Possibly Efficacious Treatment

Weiss et al., 2003

N = 93. Average age of 9.7 years. 63% male. 56% African American, 38% Caucasian. *CSP*: Yes. From TRF, 50% in clinical range for internalizing problems & 56% for externalizing problems. Also, youth 1 standard deviation above mean or higher on composite behavior problem rating.

Classrooms randomly assigned to RECAP (Reaching Educators, Children and Parents) intervention or C. *Modality*: Multicomponent *Therapists*: Professional therapists, nurses, & graduate students *Setting*: School *Manual*: Yes.

Externalizing & Internalizing Behavior Problems: Caregiver report on CBCL; teacher report on TRF; peer report on PMIEB; youth self-report on YSR. *Posttreatment* (9 months after baseline) and *follow-up* (1 year after post-treatment) assessment

For teacher-, self-, and parent-reports of internalizing problems and for peer- and self-reports of externalizing problems, RECAP led to greater symptom reduction than C from pre-treatment to 1-year follow-up. *Posttreatment ES: d = .10* *Follow-up ES: d = .43*

Nathan & Gorman: Type 2 (blind assessment unclear) *Task Force*: Possibly Efficacious. *Minority Condition*: C (Ethnicity did not moderate outcomes).

Other clinical problems

Combined Behavioral Treatment and Medication—Probably Efficacious

Arnold et al., 2003 [Also MTA Cooperative Group, 1999; Swanson et al., 2001]

Randomly assigned to MM, Beh, Comb, or CC. *Modality*: Multicomponent *Therapists*: Mixed professional and paraprofessional treatment providers. *Setting*: Multiple. *Manual*: Yes.

ADHD and ODD symptoms: parent and teacher ratings on SNAP-IV. *Overall disruptive behavior*: Composite of ADHD and ODD symptoms. *Posttreatment* (14-months post entry) assessment only

For parent- and teacher-rated ADHD symptoms, no difference between MM and Comb, and both superior to Beh and CC (MTA Cooperative Group, 1999). For overall disruptive behavior, Comb superior to MM (Swanson et al., 2001). Insufficient data for effect size.

Nathan & Gorman: Type 1. *Task Force*: Probably Efficacious. *Minority Condition*: C (Superiority of Beh over CC in reducing parent-rated ODD greater for African American than Caucasian youth. Efficacy of Comb over MM in reducing parent-rated ODD greater for Latinos than Caucasians. For overall disruptive behavior, Comb more successful than MM for combined minorities, but not for Caucasians).

(Continued)

TABLE 3
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| Supporting Studies | Participant Characteristics | Treatment Characteristics | Outcome Measure, Source, and Assessment Period | Target Outcomes and Effect Size | Study Type and Ethnic Minority Eligibility |
|--|---|--|---|---|--|
| <i>Possibly Efficacious Treatment</i> Huey et al., 2004 | N = 156. Average age 12.9 years. 65% male. 65% African American, 33% European American, 1% other ethnicity. CSP: Yes. Referred for emergency psychiatric hospitalization. | Randomly assigned to MST or EH. <i>Modality:</i> Multicomponent <i>Therapists:</i> Professional therapists (see Henggeler, Rowland, et al., 1999) <i>Setting:</i> Home & community <i>Manual:</i> Yes. | <i>Attempted Suicide:</i> Self-report on item from the YRBS; caregiver report on item from the CBCL. <i>Suicidal Ideation:</i> self-report on items from the BSI and YRBS. Posttreatment and follow-up (1-year) assessments | MST more successful than EH at reducing YRBS attempted suicide from pre-treatment to follow-up. No treatment effects for CBCL attempted suicide, or BSI or YRBS suicidal ideation. <i>Posttreatment ES:</i> $d = -.01$ <i>Follow-up ES:</i> $d = .21$ | <i>Nathan & Gorman:</i> Type 2 (validity/reliability of most suicidality items and blind assessment unclear) <i>Task Force:</i> Possibly Efficacious. <i>Minority Condition:</i> C (For African American but not European American youth, MST led to faster recovery [CBCL attempted suicide] than hospitalization). |

Note: AC = Attention Control; ADHD = Attention-Deficit Hyperactivity Disorder; ADIS = Anxiety Disorders Interview Schedule for DSM-IV; ADIS ASI = Addiction Severity Index; AI = attributional intervention; AMGT = anger management group training; AMT = anxiety management training; AP = attention-placebo; ARC = aggressive-rejected control; ARI = aggressive-rejected intervention; ASC = Attention-Support Control; AT = Attention Training; BASC = Behavior Assessment System for Children; BC = behavioral contracting; Beh = multicomponent behavioral treatment; BPC = Behavior Problem Checklist; BSFT = Brief Strategic Family Therapy; CAT = counselor-led assertive training; CBCL = Child Behavior Checklist; CBITS = cognitive-behavioral intervention for trauma in schools; CBT = Cognitive Behavioral Therapy; CBT-G = CBT-Group; CBT-I = CBT-Individual; CC = community comparison; CCPT = Child-Centered Play Therapy; CCT = Child-Centered Therapy; CDG = counselor-led discussion group; CDI = Children's Depression Inventory; CI = Coping Power with child only; CIR = Clinician's Impairment Rating Scale; CL = universal classroom only; C = no-treatment control; Comb = combined medication and behavioral treatment; CPCL = Coping Power + universal classroom treatment; CP = Coping Power only; CPI = Coping Power with child + parent; CPSS = Child PTSD Symptom Scale; CR = cognitive restructuring; CSP = Clinically-Significant Problem; DESBRS = Devereaux Elementary School Behavior Rating Scale; DSM = *Diagnostic and Statistical Manual of Mental Disorders* (4th ed. American Psychiatric Association, 1994); EH = Emergency Psychiatric Hospitalization; ES = Effect Size; FET = Family Effectiveness Therapy; FIAP = Fostering Individualized Assistance Program; FSSC-R = Fear Survey Schedule for Children, Revised; GAD = Generalized Anxiety Disorders; GBCT = Group Cognitive-Behavioral Treatment; GC = group treatment control; HCSBS = Home and Community Social Behavior Scales; HRT = human relations training; IPPOCS = Interactive Peer Play Observational Coding System; IPT-G = IPT-Group; IPT-I = IPT-Individual; IPT = Interpersonal Psychotherapy; IT = individual therapy; K-SADS = Schedule for Affective Disorders and Schizophrenia for School-Age Children; M-AMT = modified anxiety management training; MCC = minimum contact control; MDFT = multidimensional family therapy; MM = medication management; MST = multisystemic therapy; NCC = no-contact control; NPS = nonstructured problem-solving; NYS = National Youth Survey; OD = Overanxious Disorder; ODD = Oppositional Defiant Disorder; PAT = peer-led assertive training; PC = placebo control; PDG = peer-led discussion group; PEI = Personal Experiences Inventory; PGT = peer group therapy; PIPPS = Penn Interactive Peer Play Scale; PMIEB = Peer-Report Measure of Internalizing and Externalizing Behavior; PTSD = Post-Traumatic Stress Syndrome; RC = response cost; REE = rational-emoive education; RI = rejected-only intervention; RPT = RCMAS = Revised Children's Manifest Anxiety Scale; RC = rejected-only control; RC = response cost; REE = rational-emoive education; RBPC = Revised Behavior Problem Checklist; Resilient Peer Treatment; SAS-A = Social Anxiety Scale for Adolescents; SCAN = Schedule for Classroom Activity Norms; SCARED = Screen for Child Anxiety Related Emotional Disorders; SGC = small-group counseling; SNAP-IV = Swanson, Nolan, and Pelham Questionnaire; SPS = structured problem-solving; SP = standard practice foster care; SRDS = Self-Report Delinquency Scale; SSBS = School Social Behavior Scales; SSRS = Social Skills Rating System; SST = study skills training; STAXI = State-Trait Anger Expression Inventory; TASC = Test Anxiety Scale; TBC = Teacher Behavior Checklist; TF-CBT = Trauma-Focused Cognitive-Behavioral Therapy; TLFB = Timeline Follow-Back Method; TOCA-R = Teacher Observation of Classroom Adaptation-Revised; TRF = Teacher's Report Form; UCS = Usual Community Services; US = usual services; WLC = Waitlist Control; WPBIC = Walker Problem Behavior Identification Checklist; YAS = Young Adult Self-Report; YRBS = Youth Risk Behavior Survey.

^aClinically Significant Problem.

Anxiety-Related Problems

Current research points to several efficacious treatments for ethnic minority youth with anxiety disorders. Two studies indicate that group cognitive behavioral therapy (GCBT) is possibly efficacious for Hispanic/Latino and African American youth with anxiety disorders (Ginsburg & Drake, 2002; Silverman et al., 1999). GCBT involves the use of cognitive and behavioral strategies including exposure, self-control training, contingency management and contracting, peer modeling, and feedback. Silverman et al. found significant treatment effects for GCBT compared to waitlist control, and outcomes did not differ by ethnicity (Caucasian vs. Hispanic/Latino). To address the needs of African American youth in school settings, Ginsburg and Drake adapted GCBT by reducing the length of treatment, altering examples for developmental and cultural sensitivity, and excluding parents from treatment. Although the sample size was small ($n = 12$), Ginsburg and Drake found that adapted GCBT benefited anxious African American adolescents and that adapted GCBT was superior to an attention control placebo.

Anxiety management training, study skills training, and the combination of both (modified anxiety management training) meet criteria for possibly efficacious in the treatment of test anxious African American youth. In a small sample experiment ($n = 11$ per condition), N. H. Wilson and Rotter (1986) found that anxiety management training, study skills training, and modified anxiety management training led to greater reductions in test anxiety than attention placebo or no treatment, but no differences across experimental conditions were evident.

Depression

In a randomized trial conducted in Puerto Rico with depressed youth, Rossello and Bernal (1999) found CBT and interpersonal psychotherapy (IPT) were superior to a waitlist control but differed little from one another. In a subsequent trial, Rossello, Bernal, and Rivera-Medina (in press) assigned depressed, Puerto-Rican youth to individual CBT, group CBT, individual IPT, or group IPT, although conditions were combined to form one CBT condition and one IPT condition. Whereas depression decreased significantly in both conditions, CBT led to greater reductions in depression than IPT. Thus, CBT meets criteria for probably efficacious in treating Latino youth with depression, whereas IPT meets criteria for possibly efficacious. Incidentally, Mufson and colleagues (Mufson et al., 2004; Mufson, Weissman, Moreau, & Garfinkel, 1999), found IPT superior to placebo control and treatment-as-usual in two randomized trials with

predominantly Latino youth. However, Latinos comprised less than 75% of each sample, and thus neither met inclusion criteria for this review.

Conduct Problems

Although recent reviews point to several successful approaches for preventing juvenile delinquency (S. J. Huey & Henggeler, 2001), multisystemic therapy (MST) is perhaps the only treatment shown to reduce criminal offending among African American, delinquent youth in randomized trials. MST is a family-centered, individualized intervention that targets the multiple systems in which youth are embedded. MST is intensive (daily contact when necessary) yet time limited (services range 3–6 months), and delivered in the individual's natural environment (e.g., home, school) by therapists trained in the use of diverse EBTs (e.g., contingency contracting, communication training, behavioral parent training).

Four clinical trials support the efficacy of MST with African American juvenile offenders (Borduin et al., 1995; Henggeler, Clingempeel, Brondino, & Pickrel, 2002; Henggeler, Melton, & Smith, 1992; Henggeler, Melton, Brondino, Scherer, & Hanley, 1997). Compared to usual services and individual therapy, MST led to greater reductions in re-arrests and time incarcerated. These effects lasted as long as 13.7 years posttreatment (Schaeffer & Borduin, 2005), and youth ethnicity (African American vs. European American) did not moderate outcomes (Borduin et al., 1995; Henggeler et al., 2002; Henggeler et al., 1992; Schaeffer & Borduin, 2005). Although MST efficacy was also established by independent research teams in the United States and Norway (Ogden & Halliday-Boykins, 2004; Timmons-Mitchell, Bender, Kishna, Mitchell, 2006), neither trial assessed whether ethnic minorities benefited.

Lochman's Coping Power program (in various formats) is similarly efficacious with aggressive, African American youth (Lochman, Curry, Dane, & Ellis, 2001). Coping Power (the child-only version) involves social problem solving, positive play, group-entry skills training, and training for coping with negative emotions. In their first ethnic minority-focused trial, Lochman, Coie, Underwood, and Terry (1993) found that Social Relations Training (an early version of Coping Power) led to greater improvement than no treatment control for aggressive-rejected African American youth. In subsequent trials (Lochman & Wells, 2003, 2004), youth in the Coping Power intervention (adapted to include behavioral parent training) again showed greater improvement than either treatment as usual or no treatment. Moreover, results showed that ethnicity did not moderate treatment effects for most outcomes (Lochman & Wells, 2003, 2004).

Brief Strategic Family Therapy (BSFT; Szapocznik, Hervis, & Schwartz, 2003) may be the only efficacious treatment designed for Latino youth (primarily Cuban) with conduct problems. Based on the family systems work of Salvador Minuchin (Minuchin & Fishman, 1981), BSFT adopts strategies such as joining, reframing, and boundary shifting to restructure problematic family interactions of externalizing youth and their parents. Over the past two decades, Szapocznik and colleagues have carried out an extensive program of research testing the efficacy of various forms of BSFT including one-person BSFT (Szapocznik, Kurtines, Foote, Perez-Vidal, & Hervis, 1983, 1986), Bicultural Competence Training (Szapocznik, Rio, et al., 1986), Family Effectiveness Therapy (Szapocznik, Santisteban, et al., 1989), and standard BSFT (Santisteban et al., 2003; Szapocznik, Rio, et al., 1989). However, only three trials evaluated BSFT's efficacy relative to either a placebo or waitlist control. Two of these studies showed that BSFT was superior to control (Santisteban et al., 2003; Szapocznik, Santisteban, et al., 1989). In a third, process-oriented evaluation, BSFT was not superior to a recreational comparison control (Szapocznik, Rio, et al., 1989).

MST, Coping Power (with parent training component), and BSFT all have been validated in two or more clinical trials with ethnic minority youth, although no replications by independent investigators have been carried out with minorities. Thus, MST and Coping Power (with parent training) are probably efficacious for African American youth whereas BSFT is probably efficacious for Hispanic youth.

Ten additional treatments show efficacy for ethnic minority youth with conduct problems, although none have been tested in more than one randomized trial with this population. Four of these are probably efficacious for ethnic minority youth because they meet all well-established criteria except replication by another investigator. These include rational emotive education for Black and Hispanic youth (Block, 1978); attribution retraining for African American youth (Hudley & Graham, 1993); child-centered play therapy for Mexican American youth (Garza & Bratton, 2005); and anger management group training for predominantly African American, Latino, and mixed ethnicity youth (Snyder, Kymissis, & Kessler, 1999). The 6 remaining treatments are possibly efficacious for ethnic minority youth because they were compared with no treatment or waitlist control, included fewer than 12 participants per condition, or used outcome measures of questionable reliability/validity. These include structured problem solving for Black and Hispanic youth (De Anda, 1985), and cognitive restructuring, response-cost, assertive training, social relations training, and behavioral contracting for African American youth (Forman,

1980; W. C. Huey & Rank, 1984; Lochman & Wells, 2003; Stuart, Tripodi, Jayaratne, & Camburn, 1976).

Substance Use Problems

Multidimensional Family Therapy (MDFT; Liddle et al., 2001) was the only probably efficacious treatment for drug-abusing ethnic minority youth. MDFT is a family-based, multicomponent treatment that targets the multiple systems (e.g., family, school, work, peer) that contribute to the development and continuation of drug use. At the youth level, therapists focus on building youth competencies by teaching communication and problem-solving skills. At the family level, therapists work to change negative family interaction patterns, and coach parents in ways to appropriately engage with their children. Therapists also help family members gain access to concrete resources such as job training and academic tutoring. Liddle, Rowe, Dakof, Ungaro, and Henderson (2004) found MDFT led to more rapid decreases in drug use than group-based CBT for a diverse group of ethnic minority youth.

MST, another family-based treatment, meets criteria for possibly efficacious for drug-abusing African American youth. In a recent clinical trial for juvenile drug offenders, MST was more successful than usual services (wherein youth received only minimal mental health or substance abuse treatment) at decreasing drug use at posttreatment (Henggeler, Pickrel, & Brondino, 1999) and 4 years later (Henggeler et al., 2002). Moreover, ethnicity (African American vs. White) did not moderate treatment outcomes (Henggeler et al., 2002; Henggeler, Pickrel, et al., 1999).

Trauma-Related Problems

Several treatments were efficacious for ethnic minority youth with trauma-related problems. Resilient Peer Treatment (RPT), a peer-based modeling intervention, was classified as probably efficacious for abused, African American youth. Although three studies showed that RPT was superior to placebo, all were conducted by the same primary investigator. In two separate trials, Fantuzzo and colleagues found that RPT was superior to placebo at improving social behavior among socially withdrawn, African American preschoolers (Fantuzzo, Manz, Atkins, & Meyers, 2005; Fantuzzo et al., 1996). Furthermore, maltreatment status (maltreated vs. not maltreated) did not moderate outcomes. In an early evaluation with 39 maltreated, socially withdrawn preschoolers (54% African American, 46% White), Fantuzzo et al. (1988) found peer-mediated modeling (an earlier version of RPT) led to greater positive social behavior and fewer behavior problems than adult-initiated modeling or placebo control. Although no

formal analyses were reported, the authors noted that there were “no clear suggestive patterns in *race* [italics added] . . . that differentiated those who responded most positively from those who responded least positively” (p. 38).

Similarly, Trauma-Focused Cognitive-Behavioral Therapy (TF-CBT; Deblinger & Heflin, 1996) is efficacious for trauma-exposed ethnic minority youth. TF-CBT is a 12-session parent- and child-focused treatment involving psychoeducation, coping skills training, gradual exposure, cognitive processing of the abuse experience, and parent management training. In a multisite evaluation for sexually abused youth with posttraumatic stress disorder (PTSD), Cohen, Deblinger, Mannarino, and Steer (2004) found TF-CBT led to greater PTSD symptom reduction than child-centered therapy, although ethnicity (White vs. non-White [70% African American]) was not a significant moderator of treatment (Cohen et al., 2004; J. A. Cohen, personal communication, June 2004). Because all well-established criteria were met except replication by an independent investigator, TF-CBT is probably efficacious for ethnic minority youth.

Two additional treatments, the Fostering Individualized Assistance Program (FIAP; Clark et al., 1998) and Cognitive-Behavioral Intervention for Trauma in the Schools (CBITS; Stein et al., 2003) are also efficacious for traumatized, ethnic minority youth. FIAP is an individualized case management intervention involving strength-based assessment, life domain planning, and help with linkages to family and community supports. Clark et al. found that compared to standard foster care, FIAP was efficacious for abused/neglected African American youth with behavioral or emotional problems. These outcomes were not moderated by youth ethnicity, suggesting that FIAP was similarly effective for African Americans and Caucasians. CBITS utilizes cognitive-behavioral techniques such as relaxation training, exposure, and social problem-solving. Stein and colleagues found that, compared to waitlist control, CBITS was efficacious in treating violence exposed, Latino youth with PTSD symptoms (approximately 80% were born in the United States to Mexican immigrant parents; B. D. Stein, personal communication, July 2004). These treatments are classified as possibly efficacious because one treatment lacked a treatment manual (Clark et al., 1998), the other was compared to waitlist control (Stein et al., 2003), and neither has been replicated as yet.

Mixed Behavioral and Emotional Problems

Although validated primarily with juvenile offenders (Henggeler et al., 1998), MST was evaluated recently with multiracial, Hawaiian youth in need of intensive

mental health services (Rowland et al., 2005). At post-treatment, MST reduced externalizing symptoms, internalizing symptoms, minor criminal activity, and length of out-of-home placements compared with usual community services. Because MST meets all well-established criteria except replication by an independent investigator, this treatment is probably efficacious for multiracial Hawaiian youth.

One controlled outcome study supports the efficacy of RECAP (Reaching Educators, Children, and Parents) for African American youth with comorbid problems that are less severe in nature (Weiss et al., 2003). RECAP is a semistructured skills training program with intervention components targeting the child (e.g., reattribution training, communication skills training) and parent/teacher (e.g., contingency management, child-adult communication training) contexts. In a recent evaluation, RECAP reduced externalizing problems and internalizing problems compared to no treatment control, and treatment effects were not moderated by ethnicity (African American vs. Caucasian). Because this study used a no treatment comparison rather than placebo, RECAP meets criteria as possibly efficacious for African American youth with comorbid problems.

EBTs for Other Psychosocial Problems

Recent data point to one efficacious treatment for African American and Latino youth with attention deficit/hyperactivity disorder (ADHD), and another for suicidal African American youth. Results from the Multimodal Treatment Study of Children with ADHD (MTA Study) suggest that behavioral treatment in conjunction with stimulant medication is probably efficacious for African American and Latino youth with ADHD and related problems (Arnold et al., 2003). Although no ethnic differences in treatment outcome were found for most outcomes (Arnold et al., 2003), several Treatment Condition \times Ethnicity moderator effects suggested that intensive behavioral treatment plus medication was more beneficial than either medication alone or community services for both African American and Latino participants. Unfortunately, no other clinical trials speak to the efficacy of psychosocial treatments for ethnic minority youth with ADHD.³ Other evidence suggests that MST is possibly efficacious for suicidal, African American youth. In a recent clinical trial, youth referred for psychiatric emergencies were randomly assigned to MST or emergency hospitalization (Henggeler, Rowland, et al., 1999; S. J. Huey

³However, results from the MTA study (Arnold et al., 2003), Brown and Sexson (1988), and Bukstein and Kolko (1998) do suggest that *methylphenidate alone* is a well-established treatment for African American youth with ADHD.

et al., 2004). MST was more successful than hospitalization at decreasing rates of attempted suicide (S. J. Huey et al., 2004). Moreover, for African American youth but not European Americans, MST led to faster recovery than hospitalization.

Thus, emerging research shows limited but significant progress in efforts to treat ethnic minority youth with ADHD or suicidal tendencies. Unfortunately, virtually nothing is known about how best to treat ethnic minority youth with elimination disorders, tic disorders, eating disorders, or a host of other clinical syndromes, despite the availability of efficacious approaches for non-minorities (e.g., Evans et al., 2005; Houts, 2003). Clearly more research is needed to bridge this gap.

A BRIEF META-ANALYSIS OF PSYCHOTHERAPY EFFECTS

To provide a quantitative overview of treatment effects, a meta-analysis was carried out drawing from eligible EBTs identified earlier and presented in Table 3. Only studies comparing an active treatment with a no treatment, placebo, or treatment-as-usual control group were included. To avoid violating assumptions of statistical independence, only one effect size per study was included in any particular analysis (Lipsey & Wilson, 2001).

Twenty-five studies were included in the final pool of studies (marked with an asterisk in the References section), representing 22 distinct controlled trials. Thirteen studies provided posttreatment results only, 5 follow-up results only, and 7 posttreatment *and* follow-up results. The final set of studies differed considerably in terms of sample size, ranging from 12 (Ginsburg & Drake, 2002) to 213 (Lochman & Wells, 2004). Because large samples yield more reliable and precise effect sizes (Lipsey & Wilson, 2001), for statistical analyses d was weighted by the inverse of its sampling error variance to more accurately estimate true population effects (Hedges & Olkin, 1985; Lipsey & Wilson, 2001).

At posttreatment, the mean effect size was $d = .44$ ($SE = .06$, 95% confidence interval [CI] = .32–.56). This indicated that overall, 67% of treated participants were better off at posttreatment than the average control participant. Because coefficients of .20 or lower represent “small” effects, coefficients around .50 “medium” effects, and coefficients of .80 or higher “large” effects, the overall d reported here falls somewhat below the standard for a “medium” effect (Cohen, 1988). To contrast with findings from a large-scale meta-analysis by Weisz and colleagues (Weisz, Weiss, et al., 1995), d was recalculated but limited to studies comparing active treatment to no-treatment or placebo control at posttreatment (i.e., treatment-as-usual control excluded).

Results yielded a mean effect size of $d = .57$ ($SE = .08$, 95% CI = .42–.72), which is comparable to the “medium” effect ($d = .54$) reported by Weisz, Weiss, et al. (1995).

Next, the Q statistic (Hedges & Olkin, 1985) was calculated to test for homogeneity of effects across all studies at posttreatment. A significant Q statistic indicates a heterogeneous distribution and suggests that study characteristics may serve as sources of difference between studies. By contrast, a nonsignificant Q indicates homogeneity across studies and suggests that effects vary primarily because of sampling error rather than systematic differences. The overall Q statistic was significant, $Q(19) = 50.16$, $p < .001$, suggesting that overall treatment effects were moderated by one or more factors.

Additional tests were conducted to evaluate whether youth ethnicity (African American vs. Latino vs. mixed/other) or other selected factors moderated treatment outcomes. Interrater reliability for these codes (based on 10 randomly selected studies) ranged from $\kappa = .69$ to $\kappa = 1.00$ (see Table 4 for details). No significant effects were found for ethnicity, $Q(2) = 3.47$, $p = .18$, type of target problem, $Q(1) = .84$, $p = .36$, problem severity, $Q(1) = 2.67$, $p = .10$, or youth diagnostic status, $Q(1) = .92$, $p = .34$. However, significant effects were found for comparison group, $Q(2) = 6.30$, $p < .05$, with the largest effects evident for no-treatment control and placebo control versus treatment as usual. Table 4 summarizes these findings.

The limited follow-up data suggest that treatment effects for ethnic minorities are maintained for 4 to 6 months ($d = .36$), 1–1.7 years ($d = .28$), 4 years ($d = .68$), and 13.7 years ($d = .37$) posttreatment. Most follow-up studies, however, focused on youth with conduct problems; 63% of these were long-term evaluations of MST. Thus, it is unclear whether follow-up results generalize to other treatments or to ethnic minority youth with nonexternalizing mental health problems.

TREATMENT OUTCOME SUMMARY

In summary, our findings show that EBTs do exist for ethnic minority youth with diverse mental health problems. Overall, these interventions produced treatment effects of “medium” magnitude, although outcomes differed by comparison group. Each treatment is listed briefly in Table 5 and categorized by EBT classification, problem focus, and youth ethnicity. With ethnic minority groups and target problems treated separately, 13 treatments meet criteria for probably efficacious, and 17 as possibly efficacious. Again, no treatments were well-established for ethnic minority youth.

Several limitations should be noted, however. First, only a small number of studies evaluated outcomes

TABLE 4
Mean Posttreatment Effect Sizes, Confidence Intervals, and Significance Values (Versus 0) by Moderator Variable for Evidence-Based Treatments with Ethnic Minority Youth

| | <i>n</i> ^c | Effect Size (<i>d</i>) | Confidence Interval | <i>p</i> |
|---|-----------------------|--------------------------|---------------------|----------|
| Total Sample | 20 | .44 (.06) | .32 to .56 | .001 |
| Ethnicity ($\kappa = .69$) | | | | |
| African Americans | 10 | .35 (.08) | .19 to .51 | .001 |
| Latinos | 4 | .47 (.15) | .17 to .76 | .002 |
| Mixed or Other Ethnic Minority | 6 | .61 (.11) | .38 to .83 | .001 |
| Target Problem Type ^a ($\kappa = .84$) | | | | |
| Externalizing Problems (Aggression, Delinquency, Other Externalizing) | 8 | .51 (.10) | .32 to .70 | .001 |
| Internalizing Problems (Anxiety, Depression, Other Internalizing) | 5 | .65 (.12) | .41 to .89 | .001 |
| Target Problem Severity ($\kappa = 1.00$) | | | | |
| Clinically Significant | 17 | .40 (.06) | .27 to .53 | .001 |
| Not Clinically Significant | 3 | .70 (.17) | .36 to 1.04 | .001 |
| Diagnostic Status ($\kappa = 1.00$) | | | | |
| DSM Diagnosis Required | 5 | .35 (.11) | .13 to .57 | .002 |
| DSM Diagnosis Not Required | 15 | .48 (.07) | .33 to .62 | .001 |
| Comparison Group ^b ($\kappa = 1.00$) | | | | |
| No Treatment | 5 | .58 (.14) | .30 to .86 | .001 |
| Placebo Control | 8 | .51 (.09) | .33 to .69 | .001 |
| Treatment as Usual ^c | 5 | .22 (.10) | .02 to .41 | .030 |
| Culture-Responsive Treatment (Conservative Definition) ($\kappa = .80$) | | | | |
| Standard Treatment | 10 | .43 (.08) | .29 to .58 | .001 |
| Culture-Responsive Treatment | 10 | .45 (.10) | .25 to .64 | .001 |
| Culture-Responsive Treatment (Liberal Definition) ($\kappa = .78$) | | | | |
| Standard Treatment | 6 | .55 (.10) | .35 to .76 | .001 |
| Culture-Responsive Treatment | 14 | .38 (.07) | .23 to .53 | .001 |

Note: DSM = *Diagnostic and Statistical Manual of Mental Disorders* (4th ed.; American Psychiatric Association, 1994).

^aSubstance use and other problems were excluded from this analysis because few studies included these as primary referral problems. Studies were excluded if outcomes focused on both externalizing and internalizing problems.

^bStudies with more than one comparison group were excluded from this analysis.

^cAll treatment as usual comparisons were also evaluations of Multisystemic Therapy.

beyond the posttreatment assessment, and most of these focused on youth with conduct problems. Although results suggest that treatment effects are generally maintained over time, these findings may not represent long-term outcomes for ethnic minority youth with anxiety disorders, depression, or other clinical problems. Second, efficacious treatments for some clinical syndromes such as eating and elimination disorders are lacking for ethnic minority youth. Thus, we know little about how ethnic minority youth fare when treated for problems other than those summarized earlier. Third, seven of the outcome studies included fewer than 15 participants per condition, and overall these small sample studies produced relatively high effect size estimates (unadjusted mean $d = 1.40$; excluding Forman et al., 1980, and Lochman et al., 1993, because effect sizes could not be estimated). As others have noted, this pattern may reflect a publication bias in favor of significant treatment effects (i.e., when samples are small, only large effects will be statistically significant and thus more likely to be published; Weisz, Weiss et al., 1995).

Table 3 shows occasional discrepancies between treatment outcomes as reported in published evaluations

and the effect size coefficients noted here (e.g., Henggeler, Pickrel, & Brondino, 1999; Huey et al., 2004). Curiously, many of these studies were evaluations of MST. For example, Henggeler et al. (1999) reported that MST led to greater reductions in posttreatment drug use, yet the overall effect size estimate was actually *negative*. Usually, these discrepancies resulted because treated youth showed higher levels of baseline psychopathology than comparison youth, suggesting that random assignment was not always successful at equating groups. Because d was derived from posttreatment and follow-up results only, it did not adjust for baseline discrepancies across treatment conditions. Thus, for these studies, the effect size estimate may not serve as an accurate index of treatment effects.

Finally, because only treatments showing superiority to control conditions were included and effect size statistics were unavailable for many studies, the summaries presented here may not represent the true magnitude of effects for ethnic minority youth. Thus, a comprehensive meta-analysis is still necessary to evaluate the full range of successful and unsuccessful treatments for ethnic minority youth.

TABLE 5
Evidence-Based Treatments for Ethnic Minority Youth

| <i>Psychosocial Treatment</i> | <i>Ethnicity</i> | <i>Citation for Efficacy Evidence</i> |
|--|---|--|
| <i>Well-Established Treatments</i> | | |
| None | | |
| <i>Probably Efficacious Treatments</i> | | |
| Attention Deficit/Hyperactivity Disorder | | |
| Combined Behavioral Treatment and Stimulant Medication | African American; Hispanic/Latino | Arnold et al. (2003) |
| Conduct Problems | | |
| Anger Management Group Training | Predominantly African American | Snyder et al. (1999) |
| Attributional Training | African American | Hudley & Graham (1993) |
| Brief Strategic Family Therapy | Hispanic/Latino (Predominantly Cuban) | Santisteban et al. (2003); Szapocznik, Santisteban et al. (1989) |
| Child-Centered Play Therapy | Hispanic/Latino (Mexican American) | Garza & Bratton (2005) |
| Coping Power (Child and Parent Components) | African American | Lochman & Wells (2003); Lochman & Wells (2004) |
| MST | African American | Borduin et al. (1995); Henggeler et al. (1992); Henggeler et al. (2002); Henggeler et al. (1997); Schaeffer & Borduin (2005) |
| Rational Emotive Education | African American + Hispanic/Latino | Block (1978) |
| Depression | | |
| CBT | Hispanic/Latino (Puerto Rican) | Rossello & Bernal (1999); Rossello et al. (in press) |
| Substance Use Problems | | |
| Multidimensional Family Therapy | Ethnic Minority (Hispanic/Latino, Haitian, Jamaican) | Liddle et al. (2004) |
| Trauma-Related Problems | | |
| Resilient Peer Treatment | African American | Fantuzzo et al. (2005); Fantuzzo et al. (1996) |
| Trauma-Focused CBT | Predominantly African American | Cohen et al. (2004) |
| Mixed/Comorbid Problems | | |
| MST | Multiracial Hawaiian (Mixed Asian/Caucasian/Pacific Islander) | Rowland et al. (2005) |
| <i>Possibly Efficacious Treatments</i> | | |
| Anxiety-Related Problems | | |
| AMT | African American | Wilson & Rotter (1986) |
| Modified AMT | African American | Wilson & Rotter (1986) |
| Study Skills Training | African American | Wilson & Rotter (1986) |
| Group CBT | Hispanic/Latino | Silverman et al. (1999) |
| Group CBT (Adapted for African Americans in School Settings) | African American | Ginsburg & Drake (2002) |
| Conduct Problems | | |
| Behavioral Contracting | African American | Stuart et al. (1976) |
| Cognitive Restructuring | African American | Forman (1980) |
| Response Cost | African American | Forman (1980) |
| Counselor-Led and Peer-Led Assertive Training | African American | Huey & Rank (1984) |
| Social Relations Training | African American | Lochman et al. (1993) |
| Structured Problem-Solving | African American + Hispanic/Latino | De Anda (1985) |
| Depression | | |
| Interpersonal Psychotherapy | Hispanic/Latino (Puerto Rican) | Rossello & Bernal (1999) |
| Substance Use Problems | | |
| MST | African American | Henggeler (1999); Henggeler et al. (2002) |
| Suicidal Behavior | | |
| MST | African American | Huey et al. (2004) |
| Trauma-Related Problems | | |
| Fostering Individualized Assistance Program | African American | Clark et al. (1998) |
| School-Based Group CBT | Hispanic/Latino (Mexican American) | Stein et al. (2004) |
| Mixed/Comorbid Problems | | |
| RECAP Intervention | African American | Weiss et al. (2003) |

Note. AMT = Anxiety Management Training; CBT = Cognitive Behavioral Therapy; MST = Multisystemic Therapy; RECAP = Reaching Educators, Children, and Parents.

TREATMENT EQUIVALENCE, ADAPTATION, AND MECHANISMS

Current research shows that many treatments are efficacious for ethnic minority youth. However, this still leaves unresolved critical questions concerning the parameters of treatment effects with ethnic minority youth. For example, are standard EBTs equally beneficial for ethnic minority and European American youth? Do cultural adaptations enhance treatment outcomes for ethnic minority youth? What do we know about factors that either mediate or moderate treatment outcomes for ethnic minority youth? And to what extent have EBTs been successfully validated with ethnic minority youth in “real-world” treatment contexts? In this section each of these questions are addressed. Yet given the methodological limitations intrinsic to this literature, caution must be exercised when interpreting these findings. For example, most studies reviewed in this section probably lack adequate statistical power to detect moderator as well as cultural adaptation effects, and thus bias findings in the direction of the null hypothesis (i.e., no ethnic differences). These and other limitations are discussed later in detail.

Are Treatments Equally Beneficial for Ethnic Minorities and NonMinorities?

A key empirical question is whether treatment effects vary as a function of ethnicity. If treatments show “ethnic invariance” (i.e., standard treatments are equally powerful when applied to ethnic minorities), such evidence could facilitate efforts to disseminate treatments to diverse populations. Conversely, if “ethnic disparity” is supported (i.e., standard treatments are less powerful

when applied to ethnic minorities), substantial modifications might be required to ensure appropriate use with ethnic minority youth. These competing perspectives have been debated by scholars for many years. Whereas “mainstream” intervention researchers often assume ethnic invariance, multicultural health scholars argue that ethnic disparity is likely when cultural considerations are ignored (de Anda, 1997). Thus, discerning which perspective is most consistent with current evidence could be of theoretical and clinical importance.

To shed light on this debate, 13 studies were examined that evaluated ethnicity as a treatment moderator in the context of a randomized controlled trial (Table 6). A treatment moderator is defined as a pre-treatment variable that has an interactive effect with treatment condition on clinical outcomes (Kraemer et al., 2002). With regard to ethnicity, significant Treatment Condition \times Ethnicity interaction effects would generally indicate that treatment was more efficacious for one ethnic group than for another.

Although most studies summarized in Table 6 did not report significant moderator effects, five studies did show that ethnicity influenced treatment outcomes. Surprisingly, three studies suggested that identical treatments may show stronger effects for ethnic minority youth compared with European American youth (Arnold et al., 2003; Huey et al., 2004; Weiss, Catron, Harris, & Phung, 1999), whereas two treatments favored European American youth over ethnic minorities (Lochman & Wells, 2004; Rohde, Seeley, Kaufman, Clarke, & Stice, 2006). Yet this summary does not fully convey the complexity of these moderator findings. For example, although Rohde et al. found superior CBT effects only for depressed White youth, ethnic differences were likely a function of the unusually positive

TABLE 6
Summary of Studies Evaluating Ethnicity as a Moderator of Treatment Effects in Randomized Controlled Trials

| <i>Significant Ethnicity Effects^a</i> | <i>Null Effects^b</i> |
|--|--|
| <ul style="list-style-type: none"> ● Arnold et al., 2003 (For one of four variables, superior outcomes for African American [behavioral treatment vs. control] and Latino youth [combined treatment vs. control] over Caucasian youth.) ● Huey et al., 2004 (Superior outcomes for African American vs. European American youth on one of two variables.) ● Lochman & Wells, 2004 (Superior outcomes for White vs. African American youth on one of two variables.) ● Rohde et al., 2006 (For Whites, depression recovery faster in CBT compared to life-skills/tutoring control; for “non-Whites,” recovery time did not differ by condition.) ● Weiss et al., 1999 (For 2 of 16 variables, African American youth in treatment showed improvement or no effects, whereas Caucasian youth in treatment deteriorated relative to controls.) | <ul style="list-style-type: none"> ● Borduin et al., 1995 (also see Schaeffer et al., 2005, for similar results at 13.7-year follow-up) ● Clark et al., 1998 ● Cohen et al., 2004 ● Henggeler et al., 1992 ● Henggeler, Pickrel, & Brondino, 1999 (also see Henggeler et al., 2002, for similar results at 4-year follow-up) ● Lochman & Wells, 2003 ● Silverman, Kurtines, Ginsburg, Weems et al., 1999 Weiss et al., 2003 |

Notes: CBT = Cognitive Behavioral Therapy.

^a $N = 5$.

^b $N = 8$.

response by non-White youth to placebo control (i.e., life-skills training). Thus, neither the ethnic invariance nor ethnic disparity perspective is clearly supported by these findings.

Although many of these treatments included culture-responsive elements, none directly tested for culture-responsive effects and thus say little about the true impact of culture-related modifications on differential treatment outcomes. As suggested by multicultural health theorists (Bernal et al., 1995; Sue & Zane, 1987; Tharp, 1991), other evidence may show that culture-responsive treatment does confer unique benefits to ethnic minorities. This issue is explored next.

Do Culture-Responsive EBTs Enhance Outcomes?

Many scholars argue that treatments should be tailored to match the needs of ethnic minority clients (e.g., American Psychological Association, 2003; Tharp, 1991; Vega, 1992). When culture is ignored, miscommunication and value conflicts may arise, leading to client discomfort, low therapeutic engagement, and subsequent treatment failure. In response to such concerns, clinical researchers have developed culturally tailored frameworks for treating ethnic minority youth, families, and adults (e.g., Bernal et al., 1995; Castro & Alarcon, 2002; Rossello & Bernal, 1996; Sue, 1998; Sue & Zane, 1987; Szapocznik, Scopetta, & King, 1978). Unfortunately, with few exceptions (e.g., S. J. Huey & Pan, 2006; Rossello & Bernal, 1999; Szapocznik, Santisteban, et al., 1989), formal application of such models in controlled trials is rare.

Nonetheless, culture-responsive methods have been identified and utilized by a small but growing number of clinical investigators. The diversity of culture-responsive approaches is reflected in Table 7, which summarizes the different ways that treatments in this review were adapted to address the needs of ethnic minority clients. Unfortunately, with the exception of those studies described next, the clinical impact of such modifications has rarely been tested.

Correlational data provide some evidence linking culture-responsive methods to beneficial responses in treatment outcome studies. Specifically, two studies indicate that ethnic match between client and therapist was associated with positive outcomes following youth- and family-based treatment (Halliday-Boykins, Schoenwald, & Letourneau, 2005; Yeh, Eastman, & Cheung, 1994). For both studies, however, nonrandom assignment to matched therapists leaves open the possibility that factors other than match accounted for the significant findings.

In contrast to correlational studies, experimental evaluations do not support the culture-responsive perspective. Szapocznik and colleagues compared BSFT with Bicultural Effectiveness Training (BET) for 31

Cuban American families with behaviorally disordered youth (Szapocznik, Rio, et al., 1986). BET was identical to BSFT, except that BET also focused on teaching "bicultural skills" to family members (e.g., methods for addressing intercultural conflict between the youth and parents). The treatments differed minimally on posttreatment ratings of behavioral problems, suggesting that bicultural skills training was not associated with additional benefits.

A second study yielded similar results. Specifically, Genshaft and Hirt (1979) evaluated how ethnic matching influenced outcomes in the context of a peer-modeling intervention. Sixty African American and European American youth were randomly assigned to a same-race model, an opposite-race model, or no-treatment control. Regardless of ethnicity, training by "White" models was more successful at ameliorating cognitive impulsivity than training by either "Black" models or no treatment. Thus, neither Szapocznik, Rio, et al. (1986) nor Genshaft and Hirt provide empirical support for the utility of culture-responsive treatment.

Aggregate effect size data were also used to evaluate whether ethnic minority youth fared better with culturally modified approaches. There is no consensus definition in the field about whether or not a treatment is considered culture-responsive or how to decide whether an adaptation is warranted (see Lau, 2006, for an emerging model). Therefore, for this study, two broad methods were used for classifying EBTs as culture-responsive. First, EBTs were defined as culture-responsive only when the clinical trial from which posttreatment effect size estimates were derived identified intervention or clinician characteristics that made treatment more appropriate for ethnic minority participants. Using this conservative approach ($\kappa = .80$), 10 treatments were considered culture-responsive and 10 were classified as *standard* (i.e., treatment has no apparent culture-responsive element; Table 8). However, because investigators sometimes omit such information from published clinical trials, a second more liberal approach ($\kappa = .78$) defined treatment as culture-responsive when information from supplementary sources (e.g., treatment manuals, prior clinical trials, book chapters) suggested that treatments were modified for ethnic minority participants. Using this approach, 14 treatments were classified as culture-responsive and 6 as standard. Table 4 shows the resulting effect size estimates. No significant effects were found based on either the first, $Q(1) = 0.01$, $p = .93$, or second, $Q(1) = 1.79$, $p = .18$, definition. Notably, these findings contrast with results from a recent meta-analysis of culturally adapted interventions (Griner & Smith, 2006).

However, some scholars (e.g., Rogler, Malgady, Costantino, & Blumenthal, 1987) contend that such

TABLE 7
Evidence-Based Youth Treatments With Culture-Responsive Elements

| <i>Study</i> | <i>Ethnicity</i> | <i>Treatment & Problem</i> | <i>Culture-Responsive Elements</i> |
|---------------------------------------|---------------------------------------|--|---|
| Clark et al. (1998) | African American | FIAP for abused youth with emotional and behavioral problems | Therapists used client's strengths across multiple life domains, including "cultural/ethnic/spiritual interests and involvement" |
| Fantuzzo et al. (2005) | African American | Resilient Peer Modeling for socially withdrawn, maltreated youth | Treatment was "culturally appropriate" in its use of family volunteers and socially high-functioning peers, with common cultural backgrounds and experiences |
| Garza & Bratton (2005) | Mexican American | Child-Centered Play Therapy for behavior problems | Bilingual Hispanic counselors, with counselors responding "in-kind" to youth language preference. Selection of multicultural toys to "capture elements of Hispanic culture" |
| Ginsburg & Drake (2002) | African American | Group CBT for anxiety disorders | Manual adapted to be "culturally sensitive (e.g., examples changed, alternative situations used, etc.)" |
| Henggeler, Melton, & Smith (1992) | African American | MST for serious and chronic antisocial behavior | Individualized treatment plans and assessment of multiple contexts, allows MST to "deal flexibly with sociocultural differences in adolescents' psychosocial contexts" |
| Henggeler, Pickrel, & Brondino (1999) | African American | MST for substance-abusing and dependent, delinquent youth | Two thirds of counselors African American (but unclear if therapist-client ethnic match) |
| Hudley & Graham (1993) | African American | Attributional Intervention for aggressive youth | Treatment conducted by African American females |
| Huey & Rank (1984) | African American | Counselor- & peer-led Assertive Training for aggressive youth | Peer and professional counselors were Black. Also, unspecified "adaptations for cultural differences incorporated" into intervention |
| Liddle et al. (2004) | Primarily African American & Hispanic | Multidimensional Family Therapy for substance use problems | 86% of therapists were either Hispanic or Black (but unclear if therapist-client ethnic match) |

(Continued)

TABLE 7
Continued

| <i>Study</i> | <i>Ethnicity</i> | <i>Treatment & Problem</i> | <i>Culture-Responsive Elements</i> |
|--|---|---|---|
| Lochman, Curry, Dane, & Ellis (2001) | African American | Coping Power (Anger Coping Program) | African American staff involved in development of intervention; in group sessions, participants encouraged to discuss what they already do that works, and those efforts are then used as positive examples; act collaboratively with participants as coaches rather than as teachers |
| Rossello & Bernal (1999) | Latino (Puerto Rican) | CBT for depression; IPT for depression | IPT and CBT “adapted, taking into consideration cultural aspects of the treatments that consider the ‘interpersonal’ aspects of the Latino culture” |
| Rossello, Bernal, & Rivera-Medina (in press) | Latino (Puerto Rican) | CBT for depression; IPT for depression | Both CBT and IPT were culturally adapted “based on a framework that employs criteria of ecological validity” |
| Rowland et al. (2005) | Multiracial Hawaiian (combinations of Asian, Pacific Islander, and Caucasian) | MST for serious emotional and behavioral problems | Cultural background of clinical team representative of client population. Use of “Family Resource Specialist” to “help families develop indigenous social supports and to assist the clinical team in understanding the cultures and contexts in which the families were embedded” |
| Silverman et al. (1999) | Latino | Group CBT for anxiety disorders | Therapist training involved “sensitizing therapists to issues specific to working with multicultural populations, such as cultural differences in modes of coping, definitions of anxiety-provoking objects or events, and particular parenting styles” |
| Stein et al. (2003) | Latino (children of Mexican immigrants) | Group CBT for PTSD symptoms | Intervention “designed for use...with a multicultural population” |
| Szapocznik, Santisteban et al. (1989) | Latino | FET for behavioral and psychological complaints | Treatment addressed intergenerational, cultural conflict. Counselors Hispanic and experience working with Hispanics |

Note: CBT = Cognitive Behavioral Therapy; FET = Family Effectiveness Therapy; FIAP = Fostering Individualized Assistance Program; IPT = Interpersonal Psychotherapy; MST = Multisystemic Therapy; PTSD = Posttraumatic Stress Disorder.

TABLE 8

Studies Evaluating Treatments Identified as Culture-Responsive or Not Culture-Responsive Based on “Conservative” and “Liberal” Criteria

| <i>Treatments</i> | <i>Conservative Definition</i> | <i>Liberal Definition</i> |
|---|---|---|
| Culture-Responsive | Fantuzzo et al. (2005); Garza & Bratton (2005); Ginsburg & Drake (2002); Henggeler et al. (1992); Henggeler et al. (1999); W. C. Huey & Rank (1984); Liddle et al. (2004); Rossello & Bernal (1999); Rowland et al. (2005); Silverman et al. (1999) | Fantuzzo et al. (2005); Fantuzzo et al. (1996); Garza & Bratton (2005); Ginsburg & Drake (2002); Henggeler et al. (1997); Henggeler et al. (1992); Henggeler et al. (1999); S. J. Huey et al. (2004); W. C. Huey & Rank (1984); Liddle et al. (2004); Rossello & Bernal (1999); Rowland et al. (2005); Santisteban et al. (2003); Silverman et al. (1999) |
| Standard (i.e., No apparent culture-responsive element) | Block (1978); Cohen et al. (2004); De Anda (1985); Fantuzzo et al. (1996); Henggeler et al. (1997); S. J. Huey et al. (2004); Santisteban et al. (2003); Snyder et al. (1999); Weiss et al. (2003); Wilson & Rotter (1986) | Block (1978); Cohen et al. (2004); De Anda (1985); Snyder et al. (1999); Weiss et al. (2003); Wilson & Rotter (1986) |

standard ways of defining culture-responsive practice may be unduly narrow, arguing that conceptualizations of “cultural-sensitivity” should be broadened to encompass mainstream modalities with particular relevance for ethnic minorities. For example, some contend that in contrast to individual psychotherapy, family- or group-based treatments may be ideal for ethnic minority youth because such modalities permit clinicians to better consider the cultural context when planning and conducting treatment (Rogler et al., 1987; Tharp, 1991). Yet empirical support for this perspective is lacking as well. Szapocznik and colleagues tested the relative efficacy of one-person versus conjoint family therapy for conduct-disordered Latino youth and found no outcome differences (Szapocznik & Hervis, 1983; Szapocznik, Kurtines, et al., 1986). Moreover, a recent trial by Rossello et al. (in press) indicated that individual treatments (CBT and IPT) were just as effective for depressed Puerto Rican youth as group-based versions of the same therapies. These findings suggest that, for Latinos, individual treatment is equal to family- and group-based modalities. Unfortunately, because only two suitable studies focused on individual psychotherapy (Garza & Bratton, 2005; Rossello & Bernal, 1999), this hypothesis could not be further tested in the current meta-analysis.

In summary, little evidence exists that culture-responsive treatment is more beneficial than standard treatments for ethnic minority youth. Yet numerous methodological problems also limit what conclusions can be drawn from this literature. For example, key studies (e.g., Genshaft & Hirt, 1986; Szapocznik, Rio, et al., 1986) probably lacked power to detect significant group differences, and the meta-analysis did not distinguish treatments in terms of the content or quality of culture-responsive adaptation. These equivocal findings suggest the need for additional experimental work

testing the potential for cultural adaptations with ethnic minority youth.

Outcome Mediators and Moderators

As EBTs increase in number, reviewers increasingly argue for research on factors that mediate and moderate treatment outcomes (Kazdin, 2007; Kazdin & Nock, 2003; Kraemer et al., 2002; Weersing & Weisz, 2002b). Mediator tests permit investigators to evaluate the mechanisms through which clinical improvement occurs and whether such mechanisms are consistent with the “theory of change” posited by particular treatment models. An accurate understanding of why treatments work could also form the basis for eliminating inert or harmful treatment methods while retaining active treatment ingredients, thus maximizing the efficacy and efficiency of clinical practice.

Unfortunately, evaluation of youth treatment mediation is exceedingly rare (Hinshaw, 2002; Kazdin & Nock, 2000; Weersing & Weisz, 2002b). However, the limited research does show that efficacious, minority-focused treatments are often successful at modifying *hypothesized* mediators of ultimate outcomes, including family functioning (Henggeler et al., 1992; Liddle et al., 2004; Lochman & Wells, 2004; Santisteban et al., 2003; Stuart et al., 1976), parenting competencies (Cohen et al., 2004), peer functioning (Liddle et al., 2004; Lochman et al., 1993), and individual cognitions (Cohen et al., 2004; Hudley & Graham, 1993). Moreover, using more formal analytic tests (Holmbeck, 1997), several investigators have assessed specific mediation effects within ethnic minority samples. Lochman and Wells (2002a) provided a compelling example of mediation testing within the context of a clinical trial with aggressive, predominantly African American youth. They found that intervention effects

(i.e., Coping Power vs. control) on drug use, delinquency, and school behavior were partially mediated by changes in parenting behavior and youth cognitions.

Two nonexperimental studies of MST similarly revealed significant outcome mediators. Huey and colleagues found that for rural, mostly African American offenders, changes in family functioning and deviant peer affiliation mediated the relationship between therapist adherence to MST and reductions in delinquent behavior (S. J. Huey, Henggeler, Brondino, & Pickrel, 2000). These results were replicated in a sample of urban, predominantly European American offenders, suggesting that these mechanisms were not ethnic- or region-specific (S. J. Huey et al., 2000). In a larger multi-site evaluation of MST, Halliday-Boykins et al. (2005) found that the relations between therapist–client ethnic match on discharge success was partially mediated by higher therapist adherence to MST. Findings from these three studies are encouraging and suggest that clinical change for ethnic minority youth may occur via theory-consistent mechanisms.

However, the mediator framework articulated by Kraemer et al. (2002) suggests that only the Lochman and Wells (2002a) study would serve as an example of treatment mediation. According to Kraemer et al., a treatment mediator must satisfy several conditions including (a) association with treatment condition (e.g., ratings on the mediator variable are higher for treatment vs. control youth), (b) association with the outcome variables, and (c) change during the period of active intervention. Because S. J. Huey et al. (2000) and Halliday-Boykins et al. (2005) included only youth assigned to the MST condition—and thus did not satisfy the first condition—the factors tested in these studies cannot be considered true mediators of MST effects (Hinshaw, 2000; Kraemer et al., 2002).

Although treatment mediation effects are rarely studied in youth, formal tests of moderation are more prevalent. Moderator evaluations test the extent to which a specified variable influences treatment efficacy, and address the question for whom does treatment work and under what conditions (Hinshaw, 2000; Kraemer et al., 2002). Perhaps the clearest examples are the studies noted earlier testing ethnicity as a treatment moderator. Additional research suggests that other demographic and clinical factors may also moderate youth treatment effects within ethnic minority samples. The programs of research on Coping Power and narrative treatment best illustrate such effects.

Lochman et al. (1993) found that Social Relations treatment was successful at reducing aggression and peer-rejection for some African American youth but not others. Youth who were both aggressive and peer-rejected at pretreatment benefited from treatment whereas rejected-only youth did not (Lochman et al.,

1993). In a subsequent study, Lochman and Wells (2003) evaluated the extent to which Coping Power reduced delinquency/aggression and prevented drug use in aggressive, ethnic minority youth, and whether effects were moderated by gender, age, neighborhood status (problem vs. nonproblem neighborhood), or initial problem severity (moderate vs. high). At the 1-year follow-up, preventive effects on tobacco, alcohol, and marijuana use were strongest for youth who were older and evidenced moderate initial risk. Neighborhood status and gender did not moderate drug use outcomes. Also, none of the moderator effects were significant for delinquency or aggression outcomes. Thus, although Coping Power outcomes were influenced by several significant moderators, no clear pattern of effects emerged.

In contrast, Costantino and colleagues (Costantino, Malgady, & Rogler, 1986, 1994; Malgady, Rogler, & Costantino, et al., 1990) identified age as a consistent moderator of outcomes for narrative treatments with Latino youth. Cuento Therapy is a 20-session, narrative intervention involving Puerto Rican *cuentos*, or folktales. During treatment, bilingual/bicultural therapists read *cuentos* to youth, promote group discussion of prominent themes, facilitate role-play and dramatization of themes, and verbally reinforce youth for adaptive responses. In an initial evaluation (Costantino et al., 1986), 208 kindergarten to fourth-grade Puerto Rican youth with below-median ratings of problem behavior were randomly assigned to original *cuento* therapy (i.e., stories were consistent with the original Puerto Rican *cuentos*), adapted *cuento* therapy (i.e., stories were modernized to match the mainland U.S. context), art/play therapy, or no-treatment control. Costantino and colleagues found that grade level moderated the effect of treatment condition on trait anxiety outcomes. For first-grade children only, adapted *cuento* therapy led to greater reductions in trait anxiety than all other treatment conditions (Costantino et al., 1986). This moderator effect was not found at the 1-year follow-up.

Based on these moderator findings, Costantino and colleagues modified this narrative approach to match the developmental needs of older youth. Yet curiously, age continued to moderate treatment effects (Costantino et al., 1994; Malgady et al., 1990). Malgady et al. randomly assigned eighth- and ninth-grade Puerto Rican students with below-median ratings on a behavior checklist to Hero/Heroine Modeling (a variation of *cuento* therapy designed for adolescents) or attention-placebo control. Moderator analyses showed that for eighth- but not ninth-grade youth, treatment led to significantly lower trait anxiety than control. Similarly, Costantino et al. (1994) found that the efficacy of their Tell-Me-A-Story Intervention (a variation of *cuento* therapy using pictorial stimuli and designed for

multiracial Hispanic youth) varied as a function of both grade level and gender among Hispanic youth with conduct, anxious, or phobic symptoms. Compared with placebo control, Tell-Me-A-Story Intervention led to fewer school conduct problems for sixth graders only, and fewer phobic symptoms for fifth-grade boys and fourth- and fifth-grade girls only.

Thus, across three “prevention” trials, Costantino and colleagues found evidence that narrative treatment shows its greatest success in ameliorating anxiety-related symptoms among younger children. However, narrative therapy did not meet the APA Task Force criteria (Chambless et al., 1998; Chambless & Hollon, 1998; Chambless et al., 1996) because (a) outcome effects did not clearly match the target behavior (e.g., treatment ameliorated anxiety problems but youth often showed above median levels of externalizing behavior; Costantino et al., 1986; Malgady et al., 1990), (b) treatment had the purported goal of increasing ethnic identity and self-concept rather than decreasing symptomatology (Malgady et al., 1990), and (c) none of the trials reported treatment main effects.

Other research suggests that the *absence* of moderator effects may also have important practical and theoretical implications. In two controlled outcome studies, Fantuzzo and colleagues found that maltreatment status consistently failed to moderate the effects of RPT on socially withdrawn, African American preschoolers (Fantuzzo et al., 2005; Fantuzzo et al., 1996). These results appear to support the broader utility of RPT with African American children. Although specifically designed for maltreated youth, RPT is apparently effective at building social skills in youth regardless of abuse history.

Relevance to “Real-World” Treatment

Despite evidence that EBTs work for ethnic minority youth, it is unclear whether efficacious treatments translate well to real-world clinic practice where most treatment occurs. Weisz and colleagues described the gap between lab-based treatments and clinic-based services for youth and concluded that the efficacy demonstrated in research treatments is not representative of the poor outcomes achieved in actual clinic practice (Weisz, Donenberg, Han, & Weiss, 1995; Weisz et al., 1998). Moreover, the lab-clinic gap appears to exist for ethnic minority youth as well (Weersing & Weisz, 2002a; Weiss et al., 1999; Weisz, Jensen-Doss, & Hawley, 2006).

Fortunately, some progress has been made in bridging this gap. At least two treatment models provide a framework for treating ethnic minority youth under circumstances that reflect real-world conditions. Both approaches permit clinicians to respond flexibly to circumstances unique to the individual client and

appear to work for ethnic minority youth with clinically significant problems.

The first model uses treatment principles to guide intervention conceptualization and implementation. Family-based MST presents one example of such an approach with ethnic minority youth. Throughout the assessment and treatment phases, MST therapists evaluate the “fit” of initial and ongoing problem behaviors within the youth’s larger social context (Henggeler et al., 1998). This “fit” assessment informs the selection of evidence-based treatment strategies, which are then used to alter individual, family, and contextual factors that contribute significantly to problem behavior. As noted earlier, MST is beneficial for ethnic minority youth with diverse clinical problems including antisocial behavior, suicidal behavior, “soft” drug use, and mixed behavioral and emotional problems (Borduin et al., 1995; Henggeler et al., 1992; Henggeler, Pickrel, et al., 1999; S. J. Huey et al., 2004; Rowland et al., 2005). Moreover, two clinical trials (Henggeler et al., 1997; Rowland et al., 2005) were conducted with ethnic minority youth in community settings using professional therapists and supervisors (rather than graduate student therapists and research supervisors), thus representing a true dissemination of MST to service-based clinic settings. Note, however, that outcomes for the dissemination studies were generally not as favorable as in prior MST clinical trials, perhaps because of poor treatment fidelity when real-world therapists are not regularly supervised by MST experts (Henggeler et al., 1997).

The second approach involves enhancing the “quality” of traditional mental health by supplementing usual care with evidence-based treatments. The Youth-Partners-in-Care study (Asarnow et al., 2005) offers a template for how such a model can be integrated into a medical setting. In a multisite evaluation, Asarnow et al. (2005) assigned 418 depressed, predominantly minority youth (56% Hispanic/Latino, 13% African American, 13% White, 14% mixed, 4% other) to either usual primary care or a quality improvement intervention. Quality improvement involved supplementing usual care with training and resources to encourage patients and clinicians to select CBT as a treatment option for depression. Several outcomes of clinical importance were found at the 6-month assessment. First, quality-improvement youth were more likely than usual-care youth to receive psychotherapy, whereas no between-group difference was found for pharmacological treatment. Second, although the effects were small, quality improvement led to significantly greater reductions in depression and increases in quality of life compared with usual care.

The examples noted here represent only two possible approaches to treating ethnic minority youth in real-world clinic settings. Other promising examples of psychotherapy

dissemination exist (e.g., Herschell, McNeil, & McNeil, 2004), but these await testing with ethnic minority samples.

RECOMMENDATIONS FOR BEST PRACTICE WITH ETHNIC MINORITY YOUTH

Less than a decade ago, randomized trials with significant numbers of ethnic minority participants were rare, raising concerns that EBTs were valid only for youth and adults of European descent (Bernal & Scharron-Del-Rio, 2001). Although well-established treatments have yet to be identified, significant gains have been made in recent years, with many treatments classified as probably efficacious or possibly efficacious for ethnic minority youth (see Tables 3 and 5). This review adds to the emerging literature showing that ethnic minorities often benefit from well-designed psychosocial interventions (Miranda et al., 2005; S. J. Wilson, Lipsey, & Derzon, 2003).

The large number of EBTs found for African American and Latino youth with conduct problems (e.g., aggression, delinquency, disruptive behavior) is particularly noteworthy. To date, more than a dozen distinct treatments for ethnic minority youth with conduct problems have been successfully tested in randomized trials. Although efficacious treatments for other clinical syndromes are fewer in number, the evidence base nevertheless suggests that initial guidelines for how best to intervene with ethnic minority youth are possible. Hence, two primary recommendations are offered below for providing treatment services to ethnic minority youth with diverse mental health problems.

EBTs as First-Line Interventions

The first recommendation is to encourage clinicians to utilize EBTs when treating ethnic minority youth, particularly those identified as probably efficacious or possibly efficacious with this population. For example, this review suggests that using CBT or IPT may be preferable to untested alternative therapies when treating depressed Latino adolescents. Among EBTs, cognitive-behavioral approaches show the strongest record of success with ethnic minority youth. Indeed, the majority of EBTs described here are cognitive-behavioral in that core treatment elements derive from social learning principles (e.g., contingency management, peer modeling, in vivo exposure) and cognitive theories of psychopathology (e.g., cognitive processing, cognitive restructuring, self-control training). The apparent success of cognitive-behavioral approaches is consistent with meta-analytic work suggesting that CBTs are generally superior to insight-oriented treatments for youth

(Weiss & Weisz, 1995; Weisz, Weiss, et al., 1995), and with arguments that ethnic minority youth respond best to treatments that are highly structured, time-limited, pragmatic, and goal oriented (Ho, 1992).

Moreover, other forms of intervention are also supported as EBTs for ethnic minority youth. As noted earlier, IPT is possibly efficacious for clinically depressed, Puerto Rican youth (Rossello & Bernal, 1999) and may also work with Latino adolescents in the continental United States (Mufson et al., 2004; Mufson et al., 1999). In addition, family systems treatments such as BSFT, MDFT, and MST are supported for youth with conduct problems and drug-related disorders. Thus, EBTs for ethnic minorities are not limited to interventions derived from a single conceptual paradigm.

Selective Use of Adaptations Based on Cultural Considerations

Minority mental health researchers have long advocated that culture/ethnicity be taken into account when treating ethnic minority clients as a way to increase treatment utilization, reduce premature termination, and alleviate mental health symptoms. Yet the evidence presented here offers a mixed picture concerning the importance of culture-responsive strategies. On the one hand, many of the EBTs reported here incorporate at least one culture-responsive component in the form of provider characteristics, treatment procedures, or therapy content. Indeed, cultural adaptations are vital components of several EBTs, particularly those targeting adolescent Latinos (e.g., Rossello & Bernal, 1996; Szapocznik, Santisteban, et al., 1989). On the other hand, there is no compelling evidence as yet that these adaptations actually promote better clinical outcomes for ethnic minority youth. Overemphasizing the use of conceptually appealing but untested cultural modifications could inadvertently lead to inefficiencies in the conduct of treatment with ethnic minorities (Lau, 2006). This may be particularly risky if core intervention components are substituted or compromised in favor of untested adaptations that are geared towards ethnic minority youth and their families.

Given this ambiguous evidence base, at least two broad approaches to applying EBTs to ethnic minorities seem justified. The first strategy is to maintain EBTs in their original form and apply only those culture-responsive elements that are already incorporated into the EBT protocols. For example, prior to conducting group CBT with anxious Latino and European American youth, Silverman et al. (1999) "sensitiz[ed] therapists to issues specific to working with multicultural populations, such as cultural differences in modes of coping, definitions of anxiety-provoking objects or

events, and particular parenting styles” (p. 996). Thus, efforts to disseminate group CBT to other Latino populations might consider retaining this element of therapist training. Of course, there are limitations to this general approach. A review of Table 7 shows that cultural adaptations are often poorly specified, thus complicating the task of replicating with fidelity. Furthermore, this approach would require that ostensibly culture-nonresponsive treatments such as N. H. Wilson and Rotter’s (1986) anxiety management training remain devoid of cultural content when implemented in real-world treatment contexts.

A second approach would allow providers to tailor treatments for ethnic minority youth, but only to the extent justified by client needs. Rather than assuming a priori that standard EBTs are culturally inadequate and therefore less effective, clinicians might initially treat ethnic minority youth just as they would nonminorities. Then, as treatment barriers or opportunities arise, clinicians would consider whether attention to ethnic minority status or cultural factors is suitable. Case studies exemplifying this approach are emerging in the literature, including those associated with clinical trials of manualized cognitive-behavioral EBTs (Fink, Turner, & Beidel, 1996; Sweeney, Robins, Ruberu, & Jones, 2005).

One advantage to individualizing treatment is the flexibility it allows to address diverse cultural experiences as well as differences based on developmental level, gender, sexual orientation, and other “person” factors. Individualizing to address culture is also consistent with the functional analysis methodology advanced by proponents of behavioral and cognitive-behavioral therapies (e.g., Hayes & Toarmino, 1995; Tanaka-Matsumi, Seiden, & Lam, 1996). Further, because clinicians generally prefer more flexible approaches to treatment (e.g., Smith, Brown, & O’Grady, 1994), recommendations to individualize for culture could readily map on to routine clinical practice. However, there are two reasons why this approach may have limited utility. First, some argue that most clinicians are not culturally competent and thus may not possess the skill set required to appropriately individualize treatments for ethnic minority populations (de Anda, 1997). Second, despite the intuitive appeal of this approach, evidence that individualizing improves treatment efficacy is mixed at best with most research showing no discernable effects on outcomes (Kendall & Chu, 2000; Schneider & Byrne, 1987; Schulte, 1996).

Thus, the utility of cultural adaptation remains ambiguous, and research to uncover specific effects of culture-responsive practice should be prioritized by youth clinical researchers. Further study could show that cultural adaptations significantly augment treatment effects for ethnic minority youth. On the other

hand, additional research might reveal that even modest adaptations for culture have unintended negative consequences by inadvertently fostering stereotyped “minority” treatments (Hayes & Toarmino, 1995) or diluting ostensibly active treatment ingredients (e.g., Schulte, 1996).

RECOMMENDATIONS FOR FUTURE RESEARCH

Despite encouraging results, it is important to acknowledge the limitations of this review to ensure that benefits for ethnic minority youth are not overstated (Bernal & Scharron-Del-Rio, 2001). In this section, these limitations are noted and recommendations for future research are offered. Generally, the recommendations focus on addressing gaps in the literature and improving the quality and relevance of treatment outcome research with ethnic minority youth.

Expand Scope of Minority Recruitment in Clinical Trials

Future identification of EBTs for ethnic minority youth depends on the degree to which ethnic diversity is considered when designing and analyzing intervention studies. Although time trends show that reporting standards have improved since 1980 (Braslow et al., 2005), most youth treatment outcome studies do not document the inclusion of ethnic minority participants (Kazdin et al., 1990; Weisz, Doss, & Hawley, 2005). Thus, clinical investigators should focus greater efforts on recruiting ethnic minorities and reporting the extent to which they are involved in clinical trials.

Although African Americans and Latinos are underrepresented, Asians, Pacific Islanders, and Native Americans are nearly excluded from the youth treatment outcome literature, and future clinical trials should include these groups in adequate numbers to permit appropriate outcome evaluation. The need is particularly acute for Native American adolescents given the high prevalence of serious mental health problems (e.g., “hard” drug abuse, completed suicide) in this ethnic group (Hawkins, Marlatt, & Cummins, 2004; National Institute of Drug Abuse, 2003). Although prevention work with Native American youth is in ample supply (Hawkins et al., 2004), no evidence-based therapies for Native American youth with preexisting mental health problems have been developed as yet. (For one such effort see Carpenter, Lyons, & Miller, 1985.)

Moreover, the few clinical trials with Latino youth tend to sample a narrow segment of this demographic. Although eight of the studies in Table 3 evaluated outcomes for Latino youth, only two of these (Garza &

Bratton, 2005; Stein et al., 2003) focused on Mexican Americans, the largest Latino group in the United States (representing 67% of U.S. Latinos; Ramirez & de la Cruz, 2003). Less acculturated (e.g., immigrant) youth are also poorly represented in treatment outcome research. Because highly acculturated ethnic minority youth are arguably most similar to European Americans in values and social resources, they may also be more likely than less acculturated youth to participate in psychotherapy research and benefit from mainstream interventions (Hall, 2001). Thus, clinical trials that limit participation to English-fluent, acculturated youth (or their parents) may overestimate the efficacy of standard treatments for ethnic minorities. To better assess the true generalizability of EBTs, it is important to recruit immigrant youth and families for inclusion in clinical trials.

Evaluate Whether Ethnicity and Related Factors Moderate Treatment Effects

Notwithstanding the work examined in this review (Table 6), treatment outcome evaluation by youth ethnicity is rare, thus limiting whether EBTs can be generalized to ethnic minority youth. One obvious solution is for future investigators to routinely test for ethnicity as a treatment moderator when multiple ethnic groups are represented in adequate numbers (Hohmann & Parron, 1996). Because minority mental health researchers often theorize that standard treatments are less effective with ethnic minorities, moderator tests should permit investigators to assess the validity of this assumption.

However, some scholars warn against such comparative approaches, recommending instead that research with ethnic minorities focus on *within-group* evaluations. For example, Yali and Revenson (2004) advised caution when using between-group designs, because ethnic comparisons could inadvertently encourage “minority-deficit” models. Similarly, Bernal and Scharron-Del-Rio (2001) contended that because ethnic comparisons often have weak conceptualizations, “it is best to focus on specific ethnic groups, unless there is a clear theoretical basis for a comparative approach” (p. 338). Thus, an alternative approach would eschew ethnic comparisons and instead explore whether acculturation status, exposure to discrimination, and other culture-related factors serve as treatment moderators for ethnic minority youth (Alvidrez, Azocar, & Miranda, 1996; Hall, 2001). Indeed, some research suggests that immigrant minorities may respond less favorably than nonimmigrants to Western therapies (Martinez & Eddy, 2005; Telles et al., 1995) and that country of origin may affect treatment outcomes for Latino youth (Kataoka et al., 2003). Another important demographic variable rarely

reported (Weisz et al., 2005) or considered when examining treatment moderation is socioeconomic status. To our knowledge, treatment outcome studies have not been conducted which examine the differential efficacy of EBTs across youth from ethnic minority families of both low and high socioeconomic status groups.

It is important to note that greater attention to ethnic/cultural factors as treatment moderators should be accompanied by appropriate tests of interaction effects. Published studies, including those summarized in Table 6, generally rely on simple main effects analysis or visual inspection of means to interpret significant interaction effects. However, these methods are inadequate because neither directly tests for group differences in treatment effects (Jaccard & Guilamo-Ramos, 2002). Jaccard and colleagues (Jaccard, 2001; Jaccard & Guilamo-Ramos, 2002; Jaccard & Turrisi, 2003) offer specific recommendations for testing interactions within an analysis of variance, multiple regression, or logistic regression framework, including the use of single degrees of freedom contrasts to interpret significant interaction effects.

Report Use of Culture-Responsive Treatment

Recent data suggest that therapists, on their own, may routinely use culture-responsive strategies with ethnic minority clients (Harper & Iwamasa, 2000; Robertson et al., 2001). For example, Harper and Iwamasa found that 72% of surveyed CBT therapists discussed ethnicity-related issues with ethnic minority youth when warranted by the presenting problem. Thus, many therapists may be attuned to culture in their interactions with ethnic minority clients, but respond in a culture-responsive fashion only when relevant to the presenting problem or when culture-related barriers to treatment arise. Unfortunately, culture-responsive practice is rarely described in significant detail in the youth treatment literature.

To address this disparity between treatment description and clinician behavior, clinical researchers might consider two distinct strategies when ethnic minorities are represented in adequate numbers. First, investigators might include a description of any efforts to make treatments responsive to the ethnic, language, or cultural background of participants (see Table 7 for examples). Alternatively, when culture-responsive methods are not explicit elements of treatment, investigators could evaluate and report the extent to which culture-related content emerges as a natural element of treatment process (see Jackson-Gilfort, Liddle, Tejada, & Dakof, 2001). These recommendations are particularly important for efforts to replicate and disseminate treatments beyond the “lab” setting. If descriptions of culture-responsive methods are absent, EBT research

may properly identify “what” treatments to offer ethnic minority youth, but fail to specify “how” to implement such approaches (Jackson, 2002).

Isolate Unique Effects of Culture-Responsive Practice

Simply reporting the use of culture-responsive strategies tells us little about their importance as treatment ingredients. At present, it is unclear whether culture-responsive practice is an effective tool when treating ethnic minority youth. To test for causal relations between culture-responsiveness and treatment outcomes, more appropriate research designs are needed. An ideal approach would directly compare identical interventions that differed only in the use of culture-responsive practice. This strategy might involve random assignment of ethnic minority youth to (a) standard EBT, (b) standard EBT with culture-based modifications, (c) placebo control with culture-based modifications, and (d) placebo control only, which would permit evaluation of the combined and unique effects of EBT and culture-responsive methods. A less ideal but more pragmatic design would compare only the first two conditions. Several ongoing studies in the psychotherapy outcome literature have adopted the latter approach (S. J. Huey & Pan, 2006; McCabe, Yeh, Garland, Lau, & Chavez, 2005).

Yet designs of this sort may be of little theoretical value if cultural adaptations reflect only surface changes in treatment structure or content. Although cultural content differed dramatically across studies in this review, many treatments made “surface” modifications (e.g., ethnic match) that required minimal attention to cultural issues (Kumpfer, Alvarado, Smith, & Bellamy, 2002), and only a few were based on conceptual models of cultural sensitivity. Given the broad definition of culture-responsiveness adopted for this review, one could argue that the true influence of cultural adaptation was not adequately tested here. Thus, future efforts should focus on developing and testing more theoretically compelling adaptations.

An alternative to manipulating cultural content involves assessing how naturally occurring, culture-related treatment process influences therapy outcomes. For example, Jackson-Gilfort et al. (2001) found that discussion of culturally relevant content themes in treatment with African American youth (e.g., anger/rage, respect) was associated with higher engagement in treatment, although no links to ultimate outcomes were found. A major limitation is that this is essentially a correlational approach and thus causal relations can only be inferred. A recent study shows how investigators might conduct clinical trials that utilize both experimental and correlational methods when evaluating cultural effects (Pan, Huey, & Hernandez, 2007).

Use Appropriate Sample Sizes

Another concern is whether sample sizes have been sufficient to test key hypotheses. The absence of difference does not necessarily indicate group equivalence, and may suggest that studies lack adequate statistical power. For example, most studies testing Treatment \times Ethnicity interaction effects (see Table 6) are probably underpowered, making detection of moderator effects less likely. Assuming that ethnicity is a true moderator of psychotherapy outcomes, effect sizes are likely in the small to medium range given the modest differences between cultural groups on indices of psychopathology, attitudes toward therapy, and treatment persistence (U.S. Department of Health and Human Services, 2001). Detecting interaction effects of this magnitude would require sample sizes that likely exceed the average ($n = 74$ per condition) for trials summarized in Table 6 (Murphy & Myors, 1998).

Similarly, the two experimental efforts to isolate cultural adaptation effects for youth treatment (Genshaft & Hirt, 1979; Szapocznik, Rio, et al., 1986) likely lacked adequate power. With a two-group comparison (culture-responsive treatment vs. standard treatment), sample size requirements differ dramatically depending on the anticipated strength of the culture-responsive component. If small effects (e.g., $d = .20$) were expected, sample size requirements would readily exceed 800 (i.e., approximately 400 per condition; see Murphy & Myors, 1998). However, even if moderate effects (e.g., $d = .50$) were anticipated, as suggested by promising work in the adult treatment literature (S. J. Huey & Pan, 2006; Kohn, Oden, Munoz, Robinson, & Leavitt, 2002; Wade & Berstein, 1991), at least 130 participants (i.e., 65 per group) might be needed (Murphy & Myors, 1998). By contrast, both Genshaft and Hirt and Szapocznik, Rio, et al. (1986) included samples with fewer than 20 participants per condition.

Thus, larger samples are needed to better answer key questions of theoretical interest to minority mental health researchers. Although there are other methods for maximizing statistical power (e.g., using more sensitive measures, adjusting alpha level), increasing sample size is perhaps the most practical approach.

Assess Culturally Appropriate Outcomes

A final limitation relates to the cultural validity of treatment outcome measures. Most studies in this review did not report the reliability or validity of outcome measures with ethnic minority participants. Specific assessment instruments may be differentially valid for ethnic minority versus European American youth, thus limiting whether ethnic comparisons in outcome can be made with such measures (Hall, 2001). One solution involves

the use of culturally cross-validated assessment instruments when evaluating treatments with ethnic minority youth (Chambless et al., 1996; Sue, 1998).

However, even culturally validated measures may pose problems for cross-cultural analysis. For example, Walton and colleagues (Wachtel, Rodrigue, Geffken, Graham-Pole, & Turner, 1994; Walton, Johnson, & Algina, 1999) studied mother versus child perceptions of child anxiety and found interesting Ethnicity \times Informant interaction effects. They found that African American youth rated themselves as more anxious than European American youth, whereas African American mothers described their children as less anxious than did European American mothers. Moreover, this finding was not explained by ethnic differences in demographic variables, socioeconomic status, or social desirability. One possibility is that African American and European American parents use different reference groups when evaluating the experience of anxiety in their children (Walton et al., 1999). Thus, even when measures are valid and reliable *within* ethnic groups, cultural differences in frames of reference may still complicate outcome comparisons *between* groups (Heine, Lehman, Peng, & Greenholtz, 2002).

CONCLUSION

In summary, the psychotherapy outcome literature leaves room for considerable optimism regarding treatments for ethnic minority youth. Efficacious treatments were found for many psychosocial problems and treatment effects were moderate. Furthermore, this review highlighted emerging research on factors that influence treatment efficacy with ethnic minority youth.

Yet methodological and conceptual challenges raise concerns about the generalizability of these findings. The literature is characterized by unrepresentative samples, Eurocentric outcome measures, inadequate sample sizes, and few direct tests of key theoretical assumptions. Moreover, the simple act of defining, labeling, or classifying ethnic minorities is fraught with ambiguity. As others have noted (Betancourt & Lopez, 1993; Tharp, 1991), race, ethnicity, and culture are complex and fluid constructs, and thus not always amenable to categorization without the loss of crucial information. The ethnic labels used to categorize youth are not static, and may differ in meaning as a function of informant, assessment procedures, and level of specificity, particularly when "multiracial" youth are considered. Given the socially constructed nature of ethnic categories, and potential risks for stereotyping (Hayes & Toarmino, 1995; Sue & Zane, 1987), caution should be exercised when making claims about the efficacy of treatment for any particular ethnic group. Although these are formidable

challenges, they should not detract from efforts to advance psychotherapy research with ethnic minority youth and improve the efficacy of treatment for this population.

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