

Progress Review of the Psychosocial Treatment of Child Conduct Problems

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I assess current methods for reviewing advances in psychotherapy research and describe a new method for evaluating such work—the progress review. The need for progress reviews is highlighted and the usefulness of this technique is demonstrated via an evaluation of the extant literature on the psychosocial treatment of child conduct problems. Overall, an impressive body of research has amassed in support of the efficacy of several different treatment approaches for child conduct problems. However, information about which treatment components are responsible for therapeutic change, which mechanisms are involved, and which factors influence therapeutic change is lacking for each of the treatment approaches discussed. A theoretically based plan for future research is outlined for each treatment approach, in accordance with the results of this review. The continued use of progress reviews in all areas of psychotherapy research will help ensure that all of the goals of such research are attended to and will increase our ability to develop more effective and efficient psychotherapeutic interventions.

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The main goals of psychotherapy research can be conceptualized as (a) demonstrating that therapeutic techniques cause positive outcomes (i.e., decrease distress, dysfunction, and impairment; increase adaptive functioning), (b) understanding the processes or mechanisms through which

therapeutic change occurs, and (c) identifying factors that influence these changes. A natural progression is implied in these three goals such that the first is a necessary precondition for the other two, because therapy must be shown to have an effect before researchers attempt to understand how and under what circumstances it occurs. Indeed, early evaluations and challenges of psychotherapy (e.g., Eysenck, 1952; Joint Commission on Mental Illness and Health, 1961; Levitt, 1957) raised serious questions about its effectiveness and resulted in intensive efforts by psychotherapy researchers to demonstrate that their techniques were in fact useful (e.g., Bergin & Lambert, 1978; Smith, Glass, & Miller, 1980). As a result of these early challenges, as well as pressure from third-party payers and continued skepticism from the public and psychologists themselves, researchers have continued to focus primarily on demonstrating the efficacy of psychotherapeutic techniques.¹ As a result, a truly impressive body of research has amassed over the past several decades demonstrating the efficacy of psychotherapy, and recent efforts have catalogued a short list of evidence-based or “empirically supported” treatments. Overall, there is little debate that involvement in most forms of psychotherapy is associated with more favorable outcomes than the absence of such involvement, and it seems likely that the available evidence will be sufficient to ensure the survival of psychotherapy and psychotherapy research for the foreseeable future.

Although researchers have generally succeeded in addressing the first goal, the other two have been largely ignored. To be sure, the idea that psychotherapy researchers must expand the range of questions they are asking is admittedly not a new one (see Fiske, 1977; Kiesler, 1966; Meehl, 1955; Paul, 1967). It has been over three decades since Paul (1967) rejected the oversimplified question “does therapy work” and posed the more relevant and of-

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ten cited question: “What treatment, by whom, is most effective for this individual with that specific problem, and under what set of circumstances?” (p. 111). However, this message bears repeating, given that psychotherapy research has generally not advanced beyond the “what treatment” part of Paul’s (1967) question.

More recently, several authors have noted the progress that has been made by *pragmatic* or *descriptive* studies (which demonstrate whether an intervention is efficacious), while highlighting the need for more *explanatory* studies (which examine how an intervention actually works; e.g., Loeber & Farrington, 1997; Schwartz, Flamant, & Lelouch, 1980). Unfortunately, few researchers have heeded this challenge, and the focus in treatment studies and literature reviews continues to be on pragmatic studies demonstrating the efficacy of specific treatment packages. Others, including major funding agencies, have also recently highlighted the need to move beyond efficacy studies, but to do so in a different direction—the examination of the effectiveness of current treatment packages in more natural clinical settings (e.g., Markowitz & Street, 1999; Norquist, Lebowitz, & Hyman, 1999).

Although there are strong proponents for the advancement of each of these seemingly distinct research agendas, there is a developing consensus that studies aimed at advancing knowledge in both important areas are not only possible but essential (e.g., Chorpita, Barlow, Albano, & Daleiden, 1998; Hohmann & Shear, 2002; Klein & Smith, 1999). Indeed, it is apparent that both directions are necessary, but neither is sufficient, for the development and provision of the most effective and efficient treatments to the public. However, the psychotherapy literature remains largely splintered, and methods for organizing and developing the knowledge base and charting these future research directions are limited. Psychotherapy research will likely continue on such a course and will make limited progress beyond basic studies of the efficacy of different therapeutic techniques, unless there is a major shift in the way psychotherapy is studied.

The need for a systematic, goal-focused method of evaluating the progress of psychotherapy research has been introduced previously and has been perhaps most cogently articulated by Kazdin (2000a, 2000b; Kazdin & Kendall, 1998). However, no subsequent attempts have been made to apply such techniques to the extant literature in any area of psychotherapy research. Accordingly, the purpose here is to implement the model proposed by Kazdin and to demonstrate the value of such a model by using this tech-

nique to evaluate the extant literature on the psychosocial treatment of child conduct problems. Before doing so, I will briefly review current methods for evaluating psychotherapy research, in order to place this new method of evaluating the research into a broader context. In addition, I will conclude with a discussion of how the incorporation of progress reviews into the research armamentarium will help ensure that future research efforts remain focused on all of the goals of psychotherapy research, resulting in a more fruitful progression of research.

CURRENT METHODS FOR MEASURING PROGRESS IN PSYCHOTHERAPY RESEARCH

Primary research studies reported in the psychological and psychiatric literature have established that participating in psychotherapy is associated with favorable outcomes. These individual reports are periodically consolidated and summarized in reviews of a particular therapeutic approach or technique (e.g., Hollon & Beck, 1994), the treatment of a particular condition (e.g., Steiner, 1997), or large-scale reviews of the effects of psychotherapy in general (e.g., Lipsey & Wilson, 1993; Smith et al., 1980). Such reviews typically use one of three common formats, all addressing the limited question of whether therapy is efficacious.

Most reviews in the psychotherapy literature have been narrative in nature. In such qualitative reviews, the authors critically evaluate work that has been done in a particular area, summarize which findings are robust, and make suggestions about future areas in which that research should proceed. Narrative reviews continue to be valuable for their provision of a consolidated presentation of research findings and suggestions about future studies to be performed in order to overcome the weaknesses of previous work. Unfortunately, such proposals are often reserved for the final paragraphs and typically do not represent the central focus of these reviews. In addition, narrative reviews are typically guided by the content of the studies they review rather than by the ultimate goals of such research.

An increasing number of reviews use a meta-analytic approach. In such quantitative reviews authors code and aggregate results from all of the studies in a particular area and report on the overall effect size of a particular therapeutic technique or for a particular condition. Although meta-analytic techniques are generally well regarded for their reliance on objective, quantitative data, many have questioned the procedures and conclusions often involved in such reviews. For instance, the validity of the effect sizes

generated by many meta-analytic reviews is questionable, because the studies used to generate such estimates often differ greatly in their methodological quality, including the type of control conditions used, randomization to conditions, sample selection, and assessment methods (Chalmers, 1991; Klein, 2000). Moreover, like narrative reviews, meta-analyses generally report only on the efficacy or effectiveness of psychotherapy and typically have not attempted to address how therapy works or what factors influence its effectiveness.

More recently, a third type of review that has grown in popularity identifies therapeutic techniques considered “empirically supported.” In reviews of this type, authors use specific criteria to evaluate and classify studies according to the quality and quantity of available evidence in support of a particular treatment package (e.g., Chambless & Hollon, 1998; Task Force on Promotion and Dissemination of Psychological Procedures [TFPDPP], 1995). These reviews have been lauded for identifying “treatments that work” and for their innovative use of specific criteria to evaluate existing research, rather than judging each study on the basis of its methodological shortcomings. However, like the other commonly used review techniques, the review of evidenced-based treatments focuses exclusively on whether treatments are efficacious and stops short of addressing the other goals of psychotherapy research.

THE PROGRESS REVIEW—A NEW METHOD FOR EVALUATING RESEARCH STUDIES

The goal of the *progress review* is to identify a priori questions that psychotherapy research must answer in order to advance toward each of its goals, and to evaluate the progress that has been made in a given area in relation to these questions. Similar to each of the mentioned review techniques, progress reviews also evaluate the evidence for the efficacy of a given treatment approach. However, progress reviews are wider in scope and more progressive than each of the other review techniques in that they not only address whether there is evidence that a treatment can work, but also address what components are necessary and sufficient for change, how a treatment works, and under what conditions it works. Thus, the product of each review is a comprehensive report of what research questions have been answered by existing studies and, perhaps more important, what questions remain unanswered, thus providing a clear agenda for what work must be done toward a better understanding of therapeutic change.

So what are the specific questions that must be answered in order to make progress toward the ultimate goals of psychotherapy research? Previous articles have discussed various aspects of psychotherapy that must be better investigated and understood in order to improve our ability to cause therapeutic change, as well as the associated methodological designs that should be employed (e.g., Behar & Borkovec, in press; Kazdin, 2000b; Kazdin & Kendall, 1998; Kopta, Lueger, Saunders, & Howard, 1999; Orlinsky, Grawe, & Parks, 1994). Researchers will likely have different ideas about which specific research questions should be addressed and in what order of priority, as mentioned earlier.

For the purposes of this progress review, I have selected a range of research questions that have been consistently raised in the literature, and map well onto the three identified goals of psychotherapy research (Kazdin, 2000a, 2000b; Kazdin & Kendall, 1998). As such, these questions have implications for work on the efficacy, process, and effectiveness of psychotherapy. Regardless of which specific questions future reviewers decide to make the focus of their evaluations, the strength of the progress review lies in the integration of such questions into an outline used to organize current findings and to create a goal-focused roadmap for future research.

Just as there is a natural progression to the stated goals of this research, the associated, more specific research questions represent a progression in researchers’ understanding of a given therapeutic approach. The initial focus is on demonstrating the efficacy of a given treatment approach, and the later one is on gaining a deeper understanding of exactly what is efficacious, why, and under what conditions—with an ultimate goal of supplying the public with the best treatments possible. The following section provides a brief explanation of each suggested research question that will guide the following progress review, along with the associated methodological design necessary to address that question. These goals, specific research questions, and designs are summarized in Table 1.

Goal 1: Is This Treatment Efficacious? Treatment Outcome Studies

Does This Treatment Produce Therapeutic Change at a Level Superior to No Treatment, Placebo Control Group, or Some Other Treatment Condition? The first step in evaluating a given treatment approach (i.e., a theoretically consistent collection of therapeutic strategies and techniques) is to demonstrate its efficacy. As mentioned, various sets of criteria

Table 1. Questions to guide progress reviews on psychotherapy research

Goals of Therapy Research	Questions for Progress Reviews	Methodological Design for Studies
Demonstrate causal relation between treatment and positive outcome	What is the impact of this treatment relative to no treatment, placebo, or some alternative treatment? What components or treatments can be added to enhance therapeutic change?	Treatment package/efficacy strategy Constructive/additive strategy
Understand the processes/mechanisms through which therapeutic change occurs Identify factors that influence direction and strength of therapeutic change.	What components of this treatment are necessary and sufficient for therapeutic change? What factors explain the mechanism through which this treatment influences outcome? What client or therapist factors influence the magnitude or direction of the relation between treatment and therapeutic outcome? What aspects of this treatment can be altered to increase its efficacy? Do treatment effects generalize across problem areas, settings, and other domains?	Component analyses/dismantling strategy Process/mechanism strategy Moderator strategy Parametric strategy Generality strategy

Note. Adapted from *Psychotherapy for Children and Adolescents: Directions for Research and Practice*, by A. E. Kazdin, 2000. New York: Oxford University Press.

have been established to help determine whether different treatments should be considered efficacious (e.g., Chambless & Hollon, 1998; TFPDPP, 1995). Although there is some variability among these sets of criteria, they all are generally consistent in their indication that a given treatment package is designated as efficacious if it is found to be superior in the reduction of psychological symptoms as compared to either a placebo control treatment, or an already established treatment in at least two between-group studies or a large number of single-case design experiments; if it uses a well defined, manualized treatment approach; and if supporting studies are performed by more than one group of investigators (see Chambless & Ollendick, 2001, for a review of these criteria). A great deal of recent work has focused on demonstrating the efficacy of psychotherapy; therefore, the necessity and obvious benefits of such research are well documented in the literature and will not be reviewed here. However, a brief discussion of some recent trends and limitations of this literature is warranted.

In response to the realization that the achievement of statistically significant changes in group means provides limited information about the practical impact of an intervention, researchers have given increasing attention to the measurement and evaluation of “clinically significant” change in psychotherapy research (see Kendall, 1999). Overall, this trend has led to increased efforts to demonstrate that psychosocial interventions lead to meaningful change in a person’s life, and the results of such analyses have often been encouraging (e.g., Sheldrick, Kendall, &

Heimberg, 2001), further supporting the idea that such treatments are in fact efficacious.

On balance, however, many treatment studies fail to assess the clinical significance of observed changes, and even reports of change that appear to be clinically significant often suffer from serious shortcomings in the measurement of psychopathology and related impairments. Indeed, the finding that an intervention is associated with clinically significant change is of limited meaning if it is based on invalid or biased measurement of the construct of interest. For instance, most investigations of the efficacy of psychotherapy continue to use only parent report or self-report of psychological symptoms or problem behaviors and are thus subject to myriad biases. These include demand characteristics of the therapeutic relationship, expectancies of change for those in the treatment condition, and an inability to accurately report on various aspects of one’s own (or someone else’s) affect, behavior, and cognitions.

Methodological strategies such as the use of credible control conditions or the use of measures of functioning not subject to such biases (e.g., direct observation by blind raters, performance-based assessments, public records) would be useful in overcoming these limitations. Indeed, direct observation and performance-based assessment methods are readily available and have been shown to be significantly associated with natural behavior (Frick & Loney, 2000; Gardner, 2000). Moreover, observational data have been shown to be a better predictor of future adjustment than parent or teacher report in child therapy

(e.g., Patterson & Forgatch, 1995). Although such strategies add to the difficulty of conducting each psychotherapy study, they will undoubtedly provide a more valid evaluation of the efficacy of such interventions. Given the tremendous cost, time, and effort involved in evaluating psychosocial interventions, the adoption of such stringent standards of evidence are warranted and should become a more common feature of efficacy evaluations.

What Additional Components or Combination of Approaches Enhance Therapeutic Change? Once a treatment approach is found to be efficacious, researchers may wish to examine adjunctive components that might bolster therapeutic gains. *Constructive studies* (also known as *additive studies*) examine whether the addition of some component or the combination of different treatment approaches significantly improves therapeutic efficacy. They involve a between-group design in which the first group receives the standard treatment and the second group receives standard treatment plus some adjunctive component or additional treatment approach, while all other variables are held constant. There have been many recent attempts to integrate techniques from conceptually different treatment approaches in order to maximize therapeutic effectiveness (e.g., Arkowitz & Messer, 1984; Norcross & Goldfried, 1992). Although theoretically and clinically appealing, especially given the increasing number of nominally distinct treatment approaches, little systematic research has been done to examine the efficacy of combining elements from different treatments. This is particularly troubling, given that most practicing clinicians report combining elements of different therapeutic approaches when providing treatment, rather than adhering to one therapeutic model (Glass, Victor, & Arnkoff, 1993), adding even further to the divide between psychotherapy as practiced in the laboratory versus the clinic (Weisz, Donenberg, Han, & Weiss, 1995). Nonetheless, constructive studies represent a useful strategy for developing and testing new and innovative treatment components while potentially strengthening the efficacy of current treatments.

This work is particularly appealing because it has the practical benefit of informing researchers how to build the most effective treatment approaches using what is currently known, thus providing more powerful treatments to the clinician and, more important, immediate benefit for the public. However, such strategies are of limited usefulness in the long term, since combining treatment components for

which we do not know the mechanisms of action may serve only to obscure our understanding of these mechanisms. Indeed, we will ultimately need to gain an understanding of how and why each component contributes to change in order to be able to construct therapies that are more effective and efficient.

What Components Are Necessary and Sufficient for Therapeutic Change? The result of efficacy and constructive studies is often the conclusion that a particular approach is beneficial in reducing clients' psychological symptoms. Absent from such analyses is a demonstration of which techniques are actually responsible for the observed change in functioning. *Component analyses* (also known as *dismantling studies*) entail a between-group design to compare the efficacy of different components of a treatment package in order to identify which is necessary and sufficient for therapeutic change. Components that are proven efficacious are retained and those that are unnecessary are discarded. For example, cognitive behavioral therapy typically consists of multiple components, including problem-solving skills training, cognitive restructuring, role-playing, in vivo practice, and so forth. It is not yet clear which components are necessary, active agents of change and which do not add to treatment efficacy. Thus, different combinations and permutations of various treatments may be irrelevant so long as a particular component is present. Moreover, the identification of the specific components associated with therapeutic change will provide the researcher with clearer information about which factors may be mechanisms of change in therapy.

Goal 2: How Does This Treatment Work? Process-Mechanism Studies

What Processes Within Treatment Influence (Mediate) Outcome? Once a treatment component is demonstrated to be efficacious, attention should turn to tests of the mechanisms (mediating variables) that may be responsible for the observed therapeutic change. A mediator is "the generative mechanism through which the focal independent variable is able to influence the dependent variable of interest" (Baron & Kenny, 1986, p. 1173). The identification of variables that are changed by the treatment and that then produce change in the dependent variable or variables of interest (i.e., mediate the relationship between treatment condition and therapeutic outcome) is necessary in order to understand *how* psychotherapy actually works and can

be examined in a within-group design involving straightforward statistical techniques. Unfortunately, the evaluation of proposed mechanisms of change is among the most difficult aspects of psychotherapy to test empirically. Statistically, such an evaluation requires that the treatment (T) is related to the outcome (O); that T is related to the mediator (M); that M is related to O; and that the relationship between T and O diminishes when M is included in the statistical model (Baron & Kenny, 1986; Holmbeck, 1997). In addition, in order to demonstrate that a statistical mediator acts as a causal mechanism of change, a change in the proposed mediator must occur after manipulation of the independent variable and before change in the dependent variables. Methodologically, obtaining evidence supporting the operation of a causal mechanism of change in psychotherapy requires reliable and valid assessment of the proposed mechanism and outcome variables before, during, and after the course of psychotherapy (see Kazdin & Nock, in press, for a review of criteria).

Although theories about the processes responsible for the effects of different psychotherapies abound, perhaps the biggest (and most embarrassing) secret in psychotherapy research is that *we do not know*. Few of these theories have been tested, and as a result the profession knows little about how and why therapeutic gains occur. Moreover, although researchers currently know that several treatment approaches are efficacious, if we had a better idea *why*, we could enhance the active therapeutic agent and develop treatment protocols more potent and thus more efficient in causing therapeutic change.

Given the great statistical and methodological challenges involved in testing proposed mechanisms of therapeutic change, researchers must choose carefully from an infinite range of possible mechanisms of therapeutic change. Therefore, the selection of mechanisms to be tested should be based on specific theoretical models of dysfunction and change. Indeed, such mechanisms of action in child therapy have been proposed (Brent & Kolko, 1998) and methods for examining such factors have been outlined (Eddy, Dishion, & Stoolmiller, 1998); however, actual tests of these proposed mechanisms remain scarce. In addition to mechanisms based on each theoretical approach, possible mechanisms based on a “common factors” approach may be involved in causing change. For instance, expectancies for change and therapeutic alliance are hypothesized mechanisms of therapeutic change (e.g., Frank & Frank, 1991) but have generally not been exam-

ined, especially in child therapy (Nock & Kazdin, 2001). If true progress is to be made in psychotherapy research, it will undoubtedly hinge upon the ability to identify, explain, and exploit the active ingredients of therapeutic change.

It is important to note that the identification of efficacious treatment components and active mechanisms of change is not at all a purely academic pursuit. Rather, such a focus is vital in order to increase the efficiency and effectiveness of the treatments that will ultimately be tested in clinical settings and disseminated to mental health practitioners. An analogy from a more advanced area of health care is instructive. A cornerstone of medicinal science has been the isolation of the active ingredients of therapeutically active substances. For instance, theriac, a substance often composed of over 100 ingredients (including viper’s flesh, carrots, and red roses), which takes up to 6 months to develop, was used for a wide range of health problems for over 1,500 years, including anxiety and depression. However, current medical knowledge suggests that the only chemically active ingredient was opium. Some have argued that psychotherapy is in a similar state of affairs and that there is a great need to separate the ineffective ingredients from the active ones (e.g., Janet, 1924, cited in Shapiro & Shapiro, 1997). Indeed, medicinal science advanced extremely with the development of technologies to isolate the active agents found in natural remedies (e.g., quinine from tree bark and morphine from opium). Although it is true that people do not *need* to know which components of a treatment are effective or the mechanisms through which they operate, it is clear that injection with measured doses of quinine or morphine is much more efficient and effective than consuming bunches of tree bark or opium. Similarly, it is likely that isolating the active principles or agents of change in psychotherapy and identifying their mechanisms of action will be a worthwhile endeavor in the development of more efficient and effective psychosocial treatments.

Goal 3: What Factors Influence Therapeutic Change? Moderator Studies

What Features Related to the Client, Therapist, or Treatment Influence (Moderate) Therapeutic Change? The identification of factors that moderate treatment effects is necessary to enhance researchers’ understanding of for whom and under what circumstances treatment is most effective. A moderator is a “variable that affects the direction and/or strength of the relation between an independent or pre-

dictor variable and a dependent or criterion variable” (Baron & Kenny, 1986, p. 1174). The influence of such variables can be examined by means of a within-group design involving statistical procedures outlined elsewhere (Baron & Kenny, 1986; Holmbeck, 1997).

Just as there are an infinite number of potential mediators of therapeutic change, so too are there numerous potential moderators of change. Therefore, the search for factors that moderate treatment effects must proceed in an organized, theoretically derived manner in order to progress efficiently. Moderators may be present in the client or therapist and may be specific to a given treatment approach or characteristic of psychotherapy more generally.

All individuals presenting for treatment at a given clinic or with a given disorder differ and will have different treatment responses based on these preexisting differences. For instance, clients themselves differ in sociodemographic, diagnostic, and personality characteristics, and each of these factors can influence treatment effects (Garfield, 1994). Sociodemographic variables often examined include age, gender, ethnicity, and socioeconomic status. Although the identification of any moderating variables is instructive and will be useful in the prediction of how clients will respond to a given treatment condition, investigations of sociodemographic variables have typically been atheoretical and contribute little to the understanding of why such differences exist. Given the heterogeneity of most psychological conditions, diagnostic variables such as the severity, chronicity, and type of disorder or dysfunction will likely influence treatment efficacy. Aspects of the client’s personality and attitude toward treatment, such as preexisting problem-solving and self-regulatory skills, motivation to change, and willingness to adhere to treatment recommendations, will also have a strong influence on therapeutic outcome. Finally, aspects of the therapist that are both specific to a given treatment approach (e.g., adherence to the treatment protocol, or competence using a particular treatment) and general to all approaches (e.g., therapeutic alliance or therapist warmth) have been shown to influence treatment effects in adult therapy (e.g., Beutler, Machado, & Neufeldt, 1994; M. J. Lambert, 1992) and are strong candidates as moderators of treatment effects in child therapy. Clinically, the identification of moderating variables would allow clinicians to provide services more effectively and efficiently, because they could learn to match children and families with particular characteristics to the treatments that are most likely to benefit them.

Therapeutic efficacy may also be influenced by variations in the parameters of treatment, such as the duration and delivery of therapy (i.e., what changes can be made to the treatment to increase its efficacy or effectiveness?). In *parametric strategies* the actual content of treatment sessions is not varied among treatment groups, but instead different aspects of the treatment delivery are varied in order to identify delivery strategies associated with maximum therapeutic benefit. Despite the wide range of moderators that are undoubtedly operating on treatment effects, relatively few studies have attempted to identify and explain such factors. Many of the currently accepted parameters for providing psychotherapy have not been empirically established. Examples exist in some areas of psychotherapy research in which alterations of the parameters of psychotherapy (e.g., session length or frequency) have led to more favorable outcomes, although the effects of such variations may be moderated by factors such as symptom severity and compliance with treatment (Foa & Franklin, 2001). Modifications to these parameters may lead to better therapeutic outcomes, especially if guided by current theories about particular treatment approaches.

To What Extent Do Treatment Effects Generalize Across Different Conditions, Settings, and Populations? The final product of psychotherapy research is the development and implementation of treatments that produce pervasive, meaningful changes in the client’s functioning, and that will most effectively and efficiently benefit consumers in actual clinical settings. After developing an understanding of whether therapy is efficacious, why, and for whom, the research should address whether the properties of such treatments remain the same when used across different problem areas, across populations, and outside of the controlled laboratory environment. This question of the *generality* of treatment, which is tested with a between-group design in which some aspect or aspects of the conditions, settings, or population are varied while all other variables are held constant, is only beginning to be addressed in psychotherapy research but has received significant attention in the past several years (e.g., Borkovec, Echemendia, Ragusea, & Ruiz, 2001; Hoagwood & Hibbs, 1995; Hohmann & Shear, 2002; Norquist et al., 1999).

There is some evidence that adult psychotherapy is as effective when provided in clinically representative settings as when provided in controlled research settings and that differences in effect sizes for studies performed in these dif-

ferent settings are the result of methodological artifacts (Shadish, Matt, Navarro, & Phillips, 2000; Shadish et al., 1997). However, several studies of the effectiveness of child psychotherapy have shown minimal effects in clinically representative settings, far smaller than those reported in controlled efficacy studies (Weisz, Weiss, & Donenberg, 1992; Weisz et al., 1995). The precise nature of the disparity in effects between the laboratory and clinic remains unclear; however, the answer likely lies among the many identified differences between lab- and clinic-based psychotherapy (Kazdin, Bass, Ayers, & Rodgers, 1990; Weisz et al., 1995).

Regardless of the reason for the obtained differences in studies of the effectiveness of psychotherapy, there is currently a move by some in the research community to “bridge the gap” between laboratory studies and clinical practice (Dodge, 2001; Weisz et al., 1995), and such efforts will surely lead to improvements in the quality and effectiveness of psychotherapy currently provided.

Several strategies may be employed to test the effectiveness of different treatment approaches. First, studies of usual clinic care, which investigate the effectiveness of treatments that are provided in clinic settings (i.e., uncontrolled, unmanualized, and with no integrity check), can be used to provide information about what techniques already being used in the clinic lead to therapeutic change. Through such strategies, researchers may bring new information to the laboratory about factors that cause and influence therapeutic change. Second, generality studies, which minimize exclusion criteria for laboratory-based therapy studies, can be used to investigate whether current efficacious treatments are effective when used with a wide range of clients. Third, transportability studies, which take efficacious treatments and test them in real clinic settings (i.e., using practicing clinicians and no or minimal exclusionary criteria for clients), can be used to investigate whether current efficacious treatments are effective when used in true clinical settings. In addition to the practical complexities of performing research in these different settings, the performance of such effectiveness research introduces a new set of factors that may moderate treatment effects, factors such as treatment setting, attitudes of community clinicians, and the provision of concurrent treatments from other health professionals (Hohmann & Shear, 2002).

The implementation of such studies and ultimately the dissemination of efficacious treatment techniques to practicing clinicians are necessary steps to ensure that clients re-

ceive the best possible clinical care based on current knowledge of therapeutic change, which is not presently the case. Indeed, currently it seems that “researchers have given a party, but clinicians and families have stayed home” (Weisz, 2000, p. 837).

In summary, in order to provide the most effective treatments possible, we as researchers must (a) know whether our treatments work, (b) understand how they work, and (c) identify what factors influence their effectiveness. The performance of periodic progress reviews in each area of psychotherapy research has been advanced as a valuable tool to help evaluate our progress toward these goals and to map an agenda for what work remains. As mentioned, the purpose of a progress review is to address each of the stated goals of psychotherapy research by applying all of these questions to the extant literature in a given area in order to evaluate where progress has been made and to specify precisely what questions remain to be asked and answered. The unanswered questions should then be addressed with use of the corresponding methodological designs. Accordingly, the following section will demonstrate a progress review of the psychosocial treatment of child conduct problems.

CURRENT PROGRESS IN THE TREATMENT OF CHILD CONDUCT PROBLEMS

Aggressive, impulsive, and antisocial behaviors in young people represent a major public health problem. Indeed, taken together, such behaviors are the most frequent basis for clinical referrals for children and are estimated to be the most costly of all mental health problems in the United States (Robins, 1981).² The prevalence of oppositional defiant disorder and conduct disorder that I refer to more generally as *conduct problems* is estimated to be between 2%–16%, depending on the population and the sampling and assessment methods used (Loeber, Burke, Lahey, Winters, & Zera, 2000). There is significant overlap among these diagnostic categories, and children with conduct problems comprise a very heterogeneous group that engages in a broad range of problem behaviors and that experiences psychopathology and impairment in multiple areas, psychopathology and impairment generally more severe and chronic than that experienced by other clinic-referred children (E. W. Lambert, Wahler, Andrade, & Bickman, 2001).

Fortunately, there is a long list of psychosocial treatments proposed to ameliorate child conduct problems. Indeed, the rich, extensive treatment literature on child

Table 2. Summary of current progress of research on the treatment of child conduct disorders

	PMT	CBT	MMT	FFT	PT
What is the impact of this treatment relative to no treatment, wait-list, placebo, or some alternative treatment?	++	+	+	+	0
What components can be added or treatments combined to enhance therapeutic change?	+	+	+	0	0
What component(s) of this treatment are necessary and sufficient for therapeutic change?	0	+	0	0	0
What factors explain the mechanism (mediator) through which this treatment influences outcome?	+	0	+	0	0
What client or therapist factors influence the magnitude or direction of (moderate) the relation between treatment and outcome?	+	+	+	+	0
What aspects/parameters of this treatment can be altered to increase its efficacy?	+	+	0	0	0
Do treatment effects generalize across problem areas, settings, and other domains?	+	+	+	+	0

Notes. Criteria for evaluating current progress: 0 means question has not yet been addressed. Few (if any) studies have been reported that address this question. + means question has been addressed, but there is not yet enough information to answer it. ++ means question has been addressed, and there is adequate information to answer this question. PMT = parent management training; CBT = child-focused cognitive-behavioral therapy; MMT = multimodal treatment; FFT = functional family therapy; PT = psychodynamic therapy.

conduct problems is an ideal starting point for this first progress review. Advances in the development and empirical testing of some of these treatments in the past several decades has been truly impressive, and the profession can now confidently state that therapeutic approaches are currently available that can reduce aggressive and antisocial behavior and increase child, parent, and family functioning. However, basic questions about psychotherapy for children with conduct problems have not been answered, and many have not even been examined. As with most areas of psychotherapy research, the vast majority of investigations of the treatment of child conduct problems have focused on treatment outcome, particularly demonstrations of the efficacy of several different treatment approaches, whereas investigations of treatment mechanisms, moderators, and generality are scarce. The wide range of treatments for child conduct problems that have been evaluated empirically can be broadly classified according to each treatment's focus on parent management training (PMT; e.g., Eyberg & Boggs, 1989; Patterson & Gullion, 1968; Webstor-Stratton, 1996a), child cognitive behavioral therapy (CBT; e.g., Kendall & Braswell, 1993; Lochman, Coie, Underwood, & Terry, 1993; Meichenbaum & Goodman, 1971; Spivack & Shure, 1982), multimodal treatment (MMT; e.g., Chamberlain 1996; Henggeler, Schoenwald, Borduin, Rowland, & Cunningham, 1998), functional family therapy (FFT; e.g., Alexander & Parsons, 1982), or psychodynamic approaches (e.g., Fonagy & Target, 1994).

The following section uses the questions I have outlined to evaluate the extant research on each of these approaches for the treatment of child conduct problems. The scope of this review is admittedly quite broad. However, given that

the purpose of a progress review is to evaluate whether each of the stated questions has been answered, I will not describe and evaluate each individual study that has been completed, but instead will indicate whether as a whole each group of studies has answered the corresponding questions—providing more detail about studies that address each question particularly well. Attention is given to progress that has been made to date, as well as to limitations of this work. Recommendations for the progression of future work conclude the review of each treatment approach. The results of this evaluation are summarized in Table 2.

Parent Management Training

Parent management training is the most well studied treatment approach for child conduct problems. PMT was developed in accordance with the theory and subsequent observational research suggesting that child conduct problems develop as a result of maladaptive parent-child interactions in which the child is reinforced for engaging in problem behaviors and the parent is reinforced for using ineffective discipline practices (see Patterson, Reid, & Dishion, 1992; Wahler, Williams, & Cerezo, 1990). In PMT parents are taught to use more effective parenting practices aimed at consistently identifying, monitoring, and punishing problem behaviors and reinforcing prosocial child behaviors. Thus, improved and more frequent use of effective parenting skills is the proposed mechanism of action in PMT.

Efficacy Studies. Dozens of studies have demonstrated the superiority of PMT over various no-treatment, placebo, and alternative treatment conditions. A recent meta-analysis reported an overall effect size for PMT, compared

to various control conditions, of $ES = 0.86$ (Serketich & Dumas, 1996). Indeed, PMT approaches were identified in a recent review of evidence-based treatments for conduct problems as the only “well established” treatment for child conduct problems (see Brestan & Eyeberg, 1998). It is notable that many demonstrations of the efficacy of PMT have used credible comparison groups, such as family therapy and community treatment, and have employed observational methods of assessing child behavior change—supporting the efficacy of this treatment approach (e.g., Patterson, Chamberlain, & Reid, 1982; Wells & Egan, 1998). The efficacy of PMT is further supported by demonstrations of the clinically significant changes in child behaviors reported across several studies performed by multiple research groups (Sheldrick et al., 2001). Overall, PMT represents the treatment approach that has been best studied and has the highest quality and quantity of research demonstrating its efficacy in the treatment of child conduct problems.

Constructive Studies. Building on the efficacy of standard PMT approaches, several studies have demonstrated increased child, parent, and family functioning when components are added that focus on improving the parent’s personal and social adjustment in areas not necessarily related to the child’s conduct problems (i.e., decreasing marital discord, occupational stress, and parental psychopathology, and improving parent problem-solving skills; Dadds, Schwartz, & Sanders, 1987; Miller & Prinz, 1990; Sanders, Markie-Dadds, Tully, & Bor, 2000; Spaccarelli, Cotler, & Penman, 1992). In addition to adding experimental components, several researchers have tested the efficacy of combining a second treatment approach with PMT. For example, Kazdin, Esveldt-Dawson, French, and Unis (1987) and Kazdin, Siegel, and Bass (1992) have tested the benefits of simultaneously providing parents with PMT and their children with CBT, compared to providing either one of these treatments alone. The combined treatment condition was associated with more marked improvements in child and parent functioning and led to higher rates of clinically significant change, as evidenced by the moving of a greater proportion of children into the normative range of functioning at posttreatment and 1-year follow-up. Others have also demonstrated the increased efficacy of combined PMT and CBT over either treatment alone in decreasing family conflict (Dishion & Andrews, 1995) and improving child functioning across a

broad range of outcome measures (Webster-Stratton & Hammond, 1997).

The success several researchers have had adding novel components to PMT substantiates the search for additional components that may similarly increase the current efficacy of PMT. For instance, components that increase parents’ motivation for treatment, attendance, and adherence are likely to improve the efficacy of PMT. Similar efforts are likely to lead to improvements in the efficacy of PMT.

Component Analyses. There are several different techniques used in PMT, such as didactic instruction, training in parent monitoring, discipline, positive reinforcement, and punishment of child behavior, in vivo practice, and homework assignments. Previous work suggests that some features of parent behavior (i.e., monitoring and discipline) may be more strongly related to changes in child behavior than others (i.e., positive reinforcement; Forgatch, 1991). Although such findings suggest that the different components of PMT may have differing levels of efficacy and some may even prove extraneous, to date no studies have tested which components are necessary and sufficient to achieve the level of therapeutic change associated with the full PMT regimen. The execution of such studies may provide information leading to a streamlining of the PMT protocol and thus a more efficient treatment process.

Mechanism Studies. The proposed mechanism of change in PMT is increased knowledge and use of effective parent management practices. As mentioned, numerous studies have demonstrated that participation in PMT is associated with therapeutic change superior to that resulting from participation in other (control) conditions. In addition, consistent with the hypothesized mechanism of PMT, participation in PMT has been demonstrated to lead to improvements in parent management behaviors, compared to control group participation (Dishion, Patterson, & Kavanagh, 1992; Webster-Stratton, 1996a), and changes in parent management behaviors are associated with improved child behavior (Forgatch, 1991). Moreover, the magnitude of change in parent management behaviors has been shown to correlate significantly with the magnitude of the reduction in child conduct problems (see Patterson, 1998). Although these studies provide support for a mediational role of improved parent management behavior in PMT, to date no studies have directly demonstrated such a mediational model. In other words, it has yet to be es-

established that participation in PMT leads to improvements in parent management behavior, which then leads to subsequent improved child behavior, and that (consistent with the mediational model) the influence of PMT on child behavior change is accounted for by changes in parent management behavior.

Client and Therapist Moderator Studies. Recent efforts to identify factors that influence the efficacy of PMT have yielded useful information about for whom and under what conditions this approach works best. In most areas of research initial investigations of moderating factors focus on age and gender. These constructs have received some attention in the PMT literature. PMT has demonstrated efficacy for both children and adolescents, and for boys and girls, with no significant differences between these groups (Dishion & Patterson, 1992; Ruma, Burke, & Thompson, 1996; Webster-Stratton, 1996b).

Other client-related factors have been found to moderate treatment efficacy for PMT. Overall, clients who enter treatment with a greater level of dysfunction or with more difficult living conditions make fewer gains in PMT. More specifically, a greater degree of dysfunction present in the child (higher number of conduct disorder symptoms), in the parent (higher parenting stress and depression scores; adverse child rearing practices), and in the family (more dysfunctional family environment; single-parent family status; lower socioeconomic status) have all been associated with a poorer response to PMT (Dumas & Wahler, 1983; Ruma, Burke, & Thompson, 1996; Webster-Stratton, 1985; Webster-Stratton & Hammond, 1990). Although these findings are informative for both researchers and clinicians who may want to assign clients to specific treatment conditions based on these moderating variables, these preliminary findings do not provide information about *why* such factors affect outcome. That is, for what reason is higher parent dysfunction associated with poor response to treatment? There is a great need for additional studies examining the role of moderating factors in PMT and how they operate, as well as studies of therapist moderators of PMT.

Parametric Studies. Treatment efficacy may be increased through modifications to the parameters of treatment, such as the duration and delivery of therapy. Since conduct problems are typically associated with a chronic course (Olweus, 1979), long-term treatment regimens are likely

to be more effective than brief, short-term interventions. However, recent meta-analysis reported no significant relationship between child outcome and either length of treatment or treatment modality (i.e., individual versus group; Serketich & Dumas, 1996). No studies directly comparing these variations have been reported; therefore, these results cannot be assumed to be conclusive.

There has recently been increased attention given to the concept of matching clients to treatment delivery models in a way that is most beneficial and cost effective, and least restrictive, to the consumer (e.g., Dishion & Kavanagh, 2000; Haaga, 2000). For instance, for the client with mild conduct problems, minimal parent training may be all that is needed to produce clinically significant improvement. However, in cases in which conduct problems are more chronic and severe, a continued-care model may be necessary. Examples exist in other areas of child psychotherapy, such as child and adolescent depression (e.g., Clarke, Rohde, Lewinsohn, Hops, & Seeley, 1999), in which periodic assessments and “booster sessions” provided to the client after the initial treatment program has ended have demonstrated favorable results. Two studies of PMT provide preliminary data suggesting that booster sessions lead to better long-term treatment effects. Patterson (1974) first reported that the addition of a 2-hour booster session after treatment termination led to significant improvements in child behavior; however, the absence of a no-booster-session control group limits the conclusions that can be drawn from this early study. A single-case, multiple baseline study similarly demonstrated the effectiveness of using two 1-hour booster sessions two months after treatment termination to increase parenting skills and child compliance (McDonald & Budd, 1983). Given the pervasive dysfunction and chronicity associated with conduct problems, as well as the promising results of these preliminary studies, additional research on the beneficial effects of extended care models are sorely needed (Eyberg, Edwards, Boggs, & Foote, 1998).

Generality Studies. PMT approaches used by different research programs have demonstrated changes in child functioning that generalize across settings as reported in session by the therapist, at home by the parent, and at school by the teacher (e.g., Patterson, Reid, & Dishion, 1992; Webster-Stratton, 1996a). The beneficial effects of PMT have also been shown to extend to socioeconomically and ethnically diverse families and to children with clinically severe,

diagnosed behavior problems (e.g., Kazdin et al., 1987, 1992; Rogers, Forehand, Griest, Wells, & McMahon, 1981). However, greater severity of child problems has been associated with less favorable outcome and higher attrition from treatment—as mentioned. The clinical effectiveness and cost effectiveness of PMT have also been supported when transported to naturalistic settings and with clinic-referred children and adolescents (e.g., Thompson, Ruma, Schuchmann, & Burke, 1996; Webster-Stratton, 1998). Moreover, the effects of PMT appear to be maintained over time. Several studies have demonstrated the maintenance of treatment effects over 1–4 years posttreatment (e.g., Baum & Forehand, 1981; Patterson & Forgatch, 1995), and in one study children treated with PMT were functioning as well as non-clinic-referred individuals during early adulthood 10–14 years after treatment (Long, Forehand, Wierson, & Morgan, 1994). These findings are particularly encouraging, given the chronic course often associated with child conduct problems.

Summary. Overall, the research on PMT for child conduct problems is distinguished by being guided by theories of the development of child behavior and by a thorough progression of research that has addressed most of the questions outlined. Indeed, the current research on PMT is superior in quality and quantity to most other areas of child psychotherapy and provides an excellent model for researchers in other areas. Although the current advances demonstrating treatment efficacy and the usefulness of adjunctive components, supporting the mediating role of hypothesized mechanisms, and demonstrating the influence of multiple treatment moderators and the generality of treatment effects are impressive, most of the questions posed have not yet been answered. Research central to the understanding of the efficacy of PMT has not been done. Most notably, the efficacy of individual treatment components have not been tested; formal tests of the hypothesized mechanisms of therapeutic change have not supported such mechanisms, and additional mechanisms (e.g., therapeutic alliance or parent-child interaction) have not been evaluated; tests of theoretically informed models explaining how and why identified moderators of treatment operate have not been completed; and alterations to the parameters of treatment (e.g., booster sessions or variations in treatment length and frequency) have not been thoroughly examined. Additional research must also focus on testing treatment delivery models in natural settings and

examining the influences of the many factors unique to such settings. These areas represent the recommended directions of future work on PMT approaches to child conduct problems.

Cognitive-Behavioral Therapy

Child-focused treatment approaches for child conduct problems have been much more heterogeneous in form than the parent-focused approaches already described. By and large, most investigations focusing on treating the child himself, or herself, have been derived from theories and observational studies emphasizing the role of cognitive-behavioral factors in the development and treatment of child conduct problems. More specifically, CBT for child conduct problems was developed on the belief that children engage in disruptive behavior as a result of (a) learned cognitive distortions, such as biased attention to aggressive cues and the attribution of hostile intent to the actions of others; (b) cognitive deficiencies, such as poor problem-solving and verbal mediation skills; and (c) a related tendency to respond impulsively to both external and internal stimuli, which has also been described as an inability to regulate emotion and behavior (Kendall & Braswell, 1993; Lochman, Whidby, & FitzGerald, 2000). Accordingly, the child-focused CBT approach to treating child conduct problems emphasizes helping the child identify stimuli that typically precede aggressive and antisocial behaviors, challenge cognitive distortions, develop more effective problem-solving skills, and learn to tolerate feelings of anger and frustration without responding impulsively or aggressively. Thus, the proposed mechanisms of therapeutic change for this approach are modifications in the child's abilities for each of these skills.

Efficacy Studies. Dozens of studies have demonstrated the efficacy of CBT for child conduct problems compared to various control conditions, although these results have not been as consistent or well documented as those for PMT. Several recent meta-analytic reviews have yielded medium-to-large effect sizes for this treatment approach for child conduct problems, ESs = 0.47 to 0.90 (Baer & Nietzel, 1991; Durlak, Fuhrman, & Lampman, 1991; Dush, Hurt, & Schroeder, 1989). Considering the weight of the evidence for CBT for child conduct problems, several such approaches have been designated as “probably efficacious” treatments for this condition (see Brestan & Eyberg, 1998).

CBT for child conduct problems appears to hold great promise. Indeed, several of these treatment packages have proven more efficacious than credible comparison groups, including nondirective relationship therapy and an attention control group (Kazdin et al., 1987), insight-oriented therapy (Kendall, Reber, McLeer, Epps, & Ronan, 1990), and an inpatient activity group (Kolko, Loar, & Sturnick, 1990). Moreover, children receiving CBT are more likely to be in the normal range of functioning after treatment than children in comparison conditions (Kazdin et al., 1987, 1992); however, it is notable that many children receiving CBT fail to reach such levels of improved functioning. Furthermore, most studies evaluating the efficacy of CBT for child conduct problems have relied exclusively on parent and teacher report of child functioning and have not employed observational or performance-based measures in the laboratory, or more socially valid measures of functioning, such as records of actual offending from school or police sources. Thus, the actual impact on such interventions on subsequent child functioning has not been sufficiently established.

Constructive Studies. Although many studies have examined the efficacy of different CBT approaches for child conduct problems, none have tested the improvement in efficacy of adding treatment components. This area represents a completely unexplored avenue by which more efficacious treatments may be developed. For instance, it may be that components that focus on improving child functioning in areas unrelated to those targeted by the CBT model of child conduct problems (e.g., family communication, symptoms of depression and anxiety, and study skills) may augment gains made in current CBT models. The probable benefit of such components is highlighted by recent findings demonstrating the wide-ranging difficulties experienced by children with conduct problems (E. W. Lambert et al., 2001). As mentioned, several studies have demonstrated the improved efficacy associated with combining CBT with PMT approaches (Dishion & Andrews, 1995; Kazdin et al., 1987; Webster-Stratton & Hammond, 1997). These two types of constructive studies represent areas for future advances in the development of more efficacious treatments.

Component Analyses. Despite the fact that dozens of studies have been conducted focusing on the efficacy of this treatment approach, I was able to find only one study that

investigated which treatment components are associated with therapeutic gains. Kendall and Braswell (1982) compared cognitive-behavioral treatment, behavioral treatment, and an attention control condition in a group of 27 children (8–12 years old) and found that the two treatment conditions were generally superior to the control condition, and the cognitive-behavioral treatment was slightly superior to the behavioral treatment on some, but not all, outcome measures. This study provides some support for the utility of a cognitive treatment component (self-instructional training) as an adjunct to behavioral treatment for children with conduct problems, although the cognitive component was not tested by itself, so its efficacy as a lone treatment approach is unknown. Studies employing larger sample sizes and tests of the more specific components involved in the CBT approach have not been performed. Thus, it is unknown which of the many components involved in CBT for child conduct problems is necessary and sufficient for therapeutic change.

Mechanism Studies. Given that the proposed mechanisms of change have been well delineated, it is surprising that no studies have demonstrated the mediational effect of any of the proposed mechanisms of change involved in CBT for child conduct problems. To be sure, several studies have demonstrated that CBT affects the proposed mechanisms in the hypothesized directions (e.g., increases in problem-solving skills and self-control, and decreases in cognitive distortions and hostile attributions) and that changes in these proposed mediators are correlated with child behavior change at posttreatment (e.g., Feindler, Marriot, & Iwata, 1984; Guerra & Slaby, 1990; Schlicter & Horan, 1981). However, no studies have demonstrated that changes in the proposed mechanisms temporally precede the changes in therapeutic outcome and that changes in the proposed mechanisms account for the effect of treatment condition on therapeutic outcome. Until these criteria are met, researchers cannot be sure the therapeutic change associated with CBT for child conduct problems is the result of cognitive and behavioral changes in the child, rather than some other, unrelated factor.

Although child therapy differs from adult therapy in key ways, it would be instructive to examine the influence of several factors shown to be involved in therapeutic change in adults. Such factors include client expectancies about therapy and change, mobilization of hope, and personal agency (Frank & Frank, 1991; Luborsky, Crits-

Christoph, Mintz, & Auerbach, 1988; Snyder, Ilardi, Michael, & Cheavens, 2000). Despite demonstrations of the significant role of each of these factors in adult therapy, their function as possible mechanisms of change has been surprisingly ignored in child therapy.

Client and Therapist Moderator Studies. Most of the research attention on factors that moderate treatment effects for child conduct problems has focused on identifying associated child characteristics. For instance, children of older age (11–13 years) and with greater cognitive ability have been shown to benefit more from CBT than younger (5–7 years), less cognitively developed children (Copeland & Hammel, 1981; Durlak et al., 1991; Dush et al., 1989; Kazdin & Crowley, 1997). In addition, a greater degree of dysfunction present in the child (e.g., higher number of conduct disorder symptoms), in the parent (higher parenting stress and depression scores, or adverse child rearing practices), and in the family (more dysfunctional family environment, single-parent family status, or lower socioeconomic status) have all been associated with a poorer response to treatment (Kazdin, 1995; Kazdin & Crowley, 1997).

Because CBT is a skills-based approach, it is likely that child attitudinal factors, such as level of motivation and adherence to treatment, will influence child proficiency at using the skills taught in sessions and, as a result, will impact therapeutic gains. In addition, it is likely that features of the therapist providing treatment will influence the child's improvement in treatment, features such as therapist knowledge of CBT skills, communication skills, warmth, and likeability. To date, the moderating role of these important child and therapist factors has not been explored.

Parametric Studies. The question of optimal treatment length has significant implications for the manner in which treatment is delivered. Two meta-analytic studies have examined the relationship between length of treatment and therapeutic outcome (i.e., effect size estimates) for child conduct problems but found no interpretable relationship between the two (Baer & Nietzel, 1991; Dush et al., 1989). I found only one study that directly compared the therapeutic outcome associated with the use of different treatment durations. Lochman (1985) reported that a longer (18 session) CBT program was associated with significantly better child outcomes than a shorter (12 session) version of

the same program. Despite these findings, however, most of the treatment approaches investigated continue to occur within a short-term model of 8 to 10 weekly, hour-long sessions (Weisz, Weiss, Alicke, & Klotz, 1987).

In addition, only one published study has examined a continued-care model for children with conduct problems. Within the context of a 3-year follow-up study, Lochman (1992) reported that boys with conduct problems that received booster sessions over the course of the follow-up showed maintenance of improvements in some classroom behaviors, but not others. Despite these promising findings, no follow-up studies examining the use of continued-care models with CBT approaches have been reported in the literature.

The format in which treatment is delivered (e.g., individual versus group) may also affect treatment efficacy. For example, several studies have reported no difference in child outcome between individual and group therapy formats for both cognitive-behavioral therapy and family therapy approaches (Kendall & Zupan, 1981; Raue & Spence, 1985). Because of the time and cost advantages associated with group treatment compared to individual treatment, these results suggest that group treatment for child conduct problems should be favored over individual treatment approaches. However, there is contradictory evidence suggesting that providing group treatment to children and adolescents with conduct problems may actually have an iatrogenic effect. Several different research groups have reported data indicating that group treatment of children and adolescents with conduct problems may exacerbate existing problems (Dishion & Andrews, 1995; Feldman, Caplinger, & Wodarski, 1983; McCord, 1981). Moreover, Poulin and colleagues (as cited in Dishion, McCord, & Poulin, 1999) reported that these negative outcomes persisted when assessed 3 years later.

Generality Studies. Many studies of the efficacy of CBT for child conduct problems have included not clinic-referred children with diagnosed behavior problems, but rather children referred to treatment studies by teachers, parents, peers, or elevated scores on behavior rating scales. Many of these children have only mild, undiagnosed behavior problems. They are considered to be quite different from actual clinic populations in which children are generally believed to have more severe behavior problems and more comorbid diagnoses (Clarke, 1995; Weisz et al., 1995). In other words, although many of these studies in-

dicating that CBT for mild child conduct problems *can* work, it has been argued that they do not necessarily provide evidence that it *does* work with actual clients in natural clinical settings.

On balance, it has been suggested that the nature, severity, and number of behavior problems of children seen in many therapy studies do not differ significantly from those seen in clinical samples (Durlak, Wells, Cotton, & Johnson, 1995; Kendall & Southam-Gerow, 1995). Furthermore, several evaluations of CBT have demonstrated beneficial effects with children from outpatient and inpatient clinical populations, with multiple diagnoses, and from diverse ethnic and socioeconomic backgrounds (e.g., Huey & Rank, 1984; Kazdin et al., 1987, 1992; Kendall et al., 1990; Lochman, Nelson, & Sims, 1981). Moreover, these treatment effects are apparent across multiple settings (e.g., clinic, home, and school) and maintained for up to 1 year after treatment completion. These studies move one step closer to demonstrating the effectiveness of the CBT approach by involving clinic-referred children with severe conduct problems and demonstrating sustained effects. However, it is notable that this level of generality has not been demonstrated with all of the various CBT treatment packages, and it remains unclear which aspects of treatment are effective. Evidence for the long-term effects (i.e., >1 year) of such approaches is also lacking.

Summary. Research on CBT approaches to child conduct problems has been guided by well-articulated theories about the etiologies and treatment of such problems. Perhaps as a result of the complexity and comprehensive nature of these theories, for child conduct problems there are currently a number of CBT packages that differ in their components. Therefore, although multiple studies have demonstrated the efficacy of CBT for child conduct problems, considerable variability in the effect sizes among different studies remains, which may be explained in part by the wide variety of components included in the different packages. Indeed, though some research has demonstrated the improved efficacy of adding PMT approaches to CBT (as mentioned in the previous section), there is a dearth of studies investigating which treatment components are necessary and sufficient for therapeutic change.

Although several studies have demonstrated that some of the hypothesized mechanisms of change are altered by treatment (e.g., problem-solving skills and cognitive distortions), these factors have not been demonstrated to me-

diate treatment effects; therefore, we still do not know how this treatment approach works. Once the efficacy of individual treatment components is demonstrated, tests of the mediational role of the hypothesized mechanisms should follow to illustrate whether these components are working because of the hypothesized mechanisms, or whether some other factors are involved that can better or more fully account for the observed changes in the child.

Existing studies have identified several client moderators of treatment effects, however, many potential moderators of CBT for child conduct problems remain unexamined (e.g., client motivation and adherence, therapist skill, and the like). Similarly, several studies have provided preliminary information about how varying treatment parameters alters the efficacy of CBT, but these findings have been inconsistent and have not been followed up with additional research. For instance, it is likely that child characteristics moderate the efficacy of (and need for) variations in the parameters of treatment. Children with more severe and persistent conduct problems are likely to benefit more from, and need, treatment that provides a greater number of sessions, more frequent clinical contacts, booster sessions, and an individual treatment format, compared to children with less severe difficulties. Investigations of CBT for child conduct problems must continue to extend to more natural clinical settings and must begin to examine the long-term effects of this treatment approach.

Multimodal Treatment

Multimodal treatment approaches, as the term implies, employ multiple treatment modalities (e.g., individual psychotherapy, family therapy, marital therapy, case management, and so forth.) within one treatment package. MMT conceptually resembles the constructive treatment strategy already discussed in that more than one approach is used to treat each child. However, rather than simply combining two existing treatment approaches (e.g., PMT + CBT) or adding a standard component to enhance an existing treatment package (e.g., PMT + parent problem solving), therapists and case managers create individually tailored treatment programs drawing from multiple treatment modalities. MMT typically provides the therapist or case manager with guiding principles or decision rules with which to choose treatment modalities to employ. Two well-studied, evidence-based forms of MMT used primarily with adolescents with conduct problems are multi-

systemic therapy (MST; see Henggeler, Schoenwald, Borduin, Rowland, & Cunningham, 1998) and multidimensional treatment foster care (MTFC; see Chamberlain, 1994, 1996).

MST was developed using the theory of social ecology and general systems theory and proposes that conduct problems are a result of multiple influences from a myriad of sources or systems (e.g., poor social skills, deviant peer affiliation, family dysfunction, and so on). MTFC is based on social learning theory and similarly proposes that conduct problems are learned primarily through interactions with parents, as well as by social interactions with peers and teachers. The proposed mechanisms of action in both of these treatment packages are modifications to the multiple systems that influence the child's behavior such as the family unit, school setting, after school settings and activities, and the like.

Efficacy Studies. Studies of MST and MTFC for conduct problems reported in the research literature have generally involved adolescents with high levels of clinical dysfunction; therefore, these studies have not used no-treatment and placebo designs but rather comparative designs, a more challenging test of the efficacy of an experimental treatment. Administration of both MST and MTFC (individually) have consistently resulted in lower recidivism rates, more favorable child and family outcomes, and greater cost effectiveness than treatment as usual and individual therapy conditions, providing convincing support for the efficacy of multimodal treatment approaches for adolescent conduct problems (e.g., Borduin et al., 1995; Chamberlain & Reid, 1991; Henggeler, Melton, & Smith, 1992). Virtually all of the demonstrations of the efficacy of these approaches have come from the same research groups, so replication of these findings by different research groups would further support the validity of these treatments.

Constructive Studies. The multimodal treatments examined thus far are comprehensive treatment packages with multiple components. Only one study has tested the increased benefit of adding an additional component to such an approach. More specifically, the addition of an enhanced training and support component, which focused on providing extra training and daily phone consultation, as well as additional financial compensation, to foster parents of identified adolescents, was associated with greater stability in foster care placements than either financial compensation only or foster care as usual conditions (Chamberlain,

Moreland, & Reid, 1992). No other studies have examined whether multimodal treatment is enhanced with the addition of new components or in combination with other approaches.

Component Analyses. MMT is a more complex, intensive approach than parent- or child-focused treatment. Indeed, MMT focuses not only on the parent and child but also on the family, peers, school, and community systems in which the child interacts. Moreover, treatment is typically tailored to match the needs of each individual child, so the same treatment modalities are not applied to each case in the same manner. Although these unique aspects of MMT are believed to add to the efficacy of this approach, they become problematic when one tries to tease apart exactly which modalities, and ultimately which components of these modalities, are related to therapeutic change. MMT incorporates several treatment approaches with demonstrated efficacy (e.g., PMT and CBT), and therefore studies comparing the different modalities used in MMT are not likely to provide useful information. Instead, it may be instructive to conduct more basic research on the individual modalities combined in MMT. For instance, component analyses of PMT and CBT, as well as the family, school, and community interventions used, are likely to inform MMT researchers and providers. Thus, component analyses of MMT are not feasible or warranted.

Mechanism Studies. MMT approaches were developed on the assumption that a child's interaction with multiple environmental systems influences behavioral development and, accordingly, that intervention should attempt to modify these influences. Despite the previously discussed difficulties of demonstrating mediational effects in treatment and the relative newness of these multimodal approaches, two research groups have demonstrated that reductions in adolescent conduct problems are mediated by the proposed mechanisms of improvement in parent management practices and decreases in negative peer affiliations (Eddy & Chamberlain, 2000; Huey, Henggeler, Brondino, & Pickrel, 2000). One of these studies also suggested that therapist adherence to the treatment protocol was also a mediator of therapeutic change (Huey et al.). Moreover, it is notable that in the study by Eddy and Chamberlain the mediators were measured temporally between the independent and dependent variables (i.e., at mid-treatment), indicating that change in the mediators was associated with subsequent change in outcome. These demonstrations of

mediation by the hypothesized mechanisms represent great progress in efforts to understand how therapeutic change occurs in therapy and provide excellent models for researchers working in this, as well as other, areas of psychotherapy research.

Although these studies signal a large step forward in our conception of how treatment works, much work remains to be done in this area. For instance, the MMT model suggests that there are many mechanisms involved in therapeutic change; however, the range of potential mediators focused on in these studies was limited. Also, these studies focused on adolescent samples, and no studies to date have investigated potential mechanisms in the treatment of children with conduct problems. It is possible that different mechanisms are involved in treatment effects, depending on the child's age and related factors such as cognitive developmental level, clinical presentation, personality, and peer and family relationships.

Client and Therapist Moderator Studies. In contrast to the progress that has been made in demonstrating that MMT works and in identifying mechanisms of action, little work has focused on features that moderate the effectiveness of these treatment approaches. As mentioned previously, one study reported that therapist adherence to the treatment protocol mediated therapeutic change (Huey et al., 2000). Although this relation was demonstrated statistically, it may be more conceptually appealing to think of therapist adherence as a moderator of change, because it is a factor that influences the strength of the relationship between treatment condition and outcome (a moderator), but does not necessarily help explain how the treatment works (a mediator). Although not tested in the Huey et al. study, the moderating role of therapist adherence to treatment principles on child outcome has been demonstrated in previous work on MST (Henggeler, Melton, Brondino, Scherer, & Hanley, 1997). Future work should examine the many other potential client and therapist moderators of change outlined in the previous sections.

Parametric Studies. The parameters of MMT delivery have also received little research attention. One recent study compared a brief MMT approach to a court-referred community control condition in the treatment of early-career juvenile offenders (Myers et al., 2000). This treatment was much shorter than MST and MTFC approaches (4 weeks compared to 12–24 weeks). Involvement in this brief MMT program was associated with significant reductions

in number of subsequent offenses and rate of arrest at 1 year of follow-up (Myers et al., 2000). It is notable, however, that participants in this study engaged in delinquent behavior that was generally less severe and less chronic than that of participants involved in previous studies of MST and MTFC approaches (e.g., two previous arrests, compared to four previous arrests). Therefore, it cannot be assumed that this brief model of treatment delivery is effective for children with more severe and chronic conduct problems. Indeed, it is likely that factors such as the severity and persistence of conduct problems moderate the effectiveness of each of these approaches.

Generality Studies. Among the most appealing features of the MMT approaches currently reported in the literature is their demonstrated effectiveness in nonlaboratory settings with adolescents with a wide range of clinical problems. For instance, MST has been shown to be superior to treatment as usual in the treatment of various conditions including juvenile offenders (Henggeler et al., 1986), violent and chronic juvenile offenders (Borduin et al., 1995; Henggeler et al., 1992; Henggeler, Melton, Smith, Schoenwald, & Hanley, 1993), adolescents who use and abuse illicit substances (Henggeler et al., 1991), and juvenile sexual offenders (Borduin, Henggeler, Blaske, & Stein, 1990). Moreover, MST has been shown to be effective whether provided in a university-based setting (Borduin et al., 1995) or a community-based setting (Henggeler et al., 1992, 1993; see also Henggeler, Schoenwald, & Pickrel, 1995). The effectiveness of this approach in each of these populations was maintained over 3–4 years of follow-up (Henggeler, 1999). MTFC has been the subject of less extensive research than MST, but has also been demonstrated to be effective in nonlaboratory settings in the treatment of severely delinquent, as well as emotionally disturbed, adolescents (Chamberlain, 1996). These numerous studies convincingly demonstrate the effectiveness of these multimodal treatment packages with a range of different clinical populations in various laboratory and clinical settings. As with efficacy work in this area, replication of these findings by other research groups will further support the effectiveness of MMT.

Summary. For conduct problems, MMT approaches such as MST and MTFC are relatively new treatments used primarily with adolescents that are guided by well-regarded theoretical work and are distinguished by the generation of an impressive amount of support for their efficacy and

effectiveness in a relatively short time period. In addition, recent studies of both treatment packages have demonstrated the mediational role of hypothesized mechanisms and demonstrated generality of effects to multiple populations and in multiple treatment settings. Despite the evidence amassed in support of these comprehensive approaches, little is known about what components are necessary and sufficient to achieve this level of therapeutic change. Indeed, this treatment approach is by definition multifaceted and complex, and it is possible that not all aspects contribute to treatment effectiveness, or that some components influence change more strongly than others. This would be important to distinguish through future research, because guidelines about administering this approach could then be altered to ensure that treatment is provided in a way that is maximally effective. Furthermore, little to no research has examined the influence of any potential client or therapist moderators of treatment or variations to the parameters of treatment, although there is some evidence that therapist adherence to the treatment protocol is related to favorable outcomes. Overall, an impressive body of research supports the continued use of MMT for adolescent conduct problems, but a range of questions remain unanswered that, when addressed, will likely lead to improvements in our understanding of this approach and our ability to administer it effectively and efficiently.

Functional Family Therapy

Family therapy researchers have conceptualized child conduct problems not as the result of inept parenting practices or cognitive deficits in the child, but instead as a result of maladaptive interactions and dynamics in the family as a whole (Alexander & Parsons, 1982; Szapocznik et al., 1989). More specifically, functional family therapy (FFT; Alexander & Parsons) conceptualizes child conduct problems as serving particular functions within the family unit (e.g., obtaining intimacy and support, or distancing oneself from other family members). The FFT approach uses family therapy sessions to develop more adaptive methods of accomplishing interpersonal communication and interaction patterns in adolescents with conduct problems. Toward that end, FFT synthesizes behavioral techniques (e.g., skills training, modeling, and positive reinforcement) and family systems techniques (e.g., reframing, developing positive themes, and conflict resolution). Accordingly, improvements in parenting skills, family communication pat-

terns, and problem solving, as well as family and social support of the child, represent the proposed mechanisms of change in FFT (Sexton & Alexander, 2000).

Efficacy Studies. FFT has been less well researched than each of the previously discussed approaches; however, there is some support for its superiority over control and alternative treatment conditions. Administration of FFT has been shown to improve family functioning and to reduce recidivism rates in comparison to no treatment and alternative treatment conditions (e.g., client-centered and psychodynamically oriented family therapy groups) in different samples of juvenile offenders (Alexander & Parsons, 1973; Barton, Alexander, Waldron, Turner, & Warburton, 1985; Klein, Alexander, & Parsons, 1977). Rates of recidivism remained significantly lower in the FFT group at up to 18-months of follow-up (Alexander & Parsons). Moreover, 3 years after the completion of this intervention, the siblings of the adolescents who participated in the FFT intervention were significantly less likely to have subsequent court contacts (20%) than siblings from the three other treatment conditions (40%–63%; Klein et al.). Although FFT has demonstrated impressive effects in several studies, replication of these effects by independent research groups is needed to support the reliability and validity of these findings.

Constructive Studies and Component Analyses. No studies have examined whether the addition of components to FFT or the combination of FFT with other treatment approaches leads to enhanced efficacy. In addition, no studies have examined which components are necessary and sufficient for therapeutic change in FFT. This second question is particularly important because FFT draws from both PMT and family therapy approaches.

Mechanism Studies. The first study of FFT reported in the literature demonstrated that one of the proposed mechanisms of change (increased family interactions) is increased in FFT compared to control conditions and that changes in the proposed mechanism were positively associated with therapeutic outcome (i.e., reduced recidivism; Alexander & Parsons, 1973). Although this study demonstrated that the proposed mechanism was associated with outcome and that change in the proposed mechanism was associated specifically with this treatment (and not with the other treatment conditions), it was not demonstrated that change

in the proposed mechanism preceded therapeutic outcome or accounted for the relation between treatment and outcome; therefore, is it possible that the change in the proposed mechanism occurred as a result of, rather than a cause of, therapeutic change. Nonetheless, these results verify the association between improved family communication and interaction and the reduction of adolescent conduct problems, providing support for the FFT model.

Client and Therapist Moderator and Parametric Studies. The theoretical underpinnings of FFT suggest that a wide range of child, parent, and family characteristics might moderate therapeutic outcome. However, the influence of such characteristics, as well as the influence of variations to the parameters of treatment delivery, has not been studied. One study indicated that a priori assessments of therapists' structuring skills and interpersonal skills were positively related to child outcome in FFT (Alexander, Barton, Schiavo, & Parsons, 1976). Given the limited amount of research examining client, therapist, and parametric moderators of FFT, this area represents an important focus for future research.

Generality Studies. Like the previously reviewed studies of MMT, evaluations of FFT have generally occurred in non-laboratory clinical settings, with clinically impaired, severely delinquent adolescents. Furthermore, collaborative work between researchers and a large community service provider has demonstrated the effectiveness of FFT compared to a standard juvenile justice-based intervention when this treatment approach is transported to such a setting (see Sexton & Alexander, 2000). Therefore, these studies provide evidence that the effects of FFT generalize to "real" client populations and are effective when implemented in community settings (Sexton & Alexander). However, to date, the effectiveness of FFT has been reported with only adolescent juvenile offenders, and no studies have reported on the generality of this treatment to children or adolescents with other conditions (e.g., children and adolescents with less severe conduct problems, substance abusers, and sexual offenders).

Summary. FFT is a theory-driven treatment approach with research supporting its efficacy and effectiveness in the treatment of adolescent conduct problems. In addition, preliminary research has provided support for the hypothesized mechanisms involved in therapeutic change,

although the mediational role of such factors has yet to be examined directly. Moreover, studies focused on identifying necessary and sufficient components or factors moderating treatment effects have not been performed. FFT is a promising approach to treating this condition, and it is likely that further research on what is effective, how it works, and what influences therapeutic change will provide much needed information.

Psychodynamic Therapy

More traditional forms of psychotherapy, such as psychodynamic therapy, were developed according to psychoanalytic and psychodynamic theories and generally propose that child conduct problems result from a failure to "internalize" the caregiver and thus to develop a "superego" that is adequate to quell innate aggressive drives or instincts (Freud, 1930/1976; Slade & Aber, 1992). The specific goals of psychodynamic therapy for child conduct problems differ, depending on the conceptualization of the problem; however, they generally are focused on helping the child express aggressive or destructive impulses, gain insight into their origin, and develop the adaptive skills necessary to control these impulses outside of the therapeutic setting. Given difficulties in operationalizing and assessing the specific psychodynamic constructs involved in the proposed etiologies of conduct problems, the precise mechanisms of change, and the distinct measures of therapeutic outcome, research on psychodynamic approaches to treating child conduct problems has not been well developed.

Evaluations of traditional child psychotherapy (i.e., typically psychodynamic approaches practiced without the use of treatment manuals or checks on treatment integrity) have demonstrated that they are not superior to the control conditions employed in psychotherapy studies (Weiss, Catron, & Harris, 2000; Weiss, Catron, Harris, & Phung, 1999). Despite this evidence of the ineffectiveness of this approach, it remains widely used in clinical practice (Kazdin, Bass, Ayers, & Rodgers, 1990). In the treatment of conduct problems, it is possible that some of the therapeutic techniques (both specific and nonspecific) used within this approach may be associated with therapeutic change; however, the studies necessary to test their efficacy or effectiveness have generally not been performed. For instance, one study that examined the utility of psychoanalysis for children with conduct problems reported improvements in child functioning at a rate similar

to that found in studies using evidence-based treatments (Fonagy & Target, 1994). However, the authors did not compare the improvement of the treatment group with a control group of diagnostically similar children, limiting the conclusions that can be drawn about the efficacy of psychoanalysis with this population. I was unable to find any studies using this approach to treat child conduct problems that addressed any of the other questions related to the stated goals of psychotherapy research. Indeed, there is much work to be done in determining whether such approaches are efficacious, how, and under what conditions. Thus, although such unevaluated therapeutic approaches may seem theoretically appealing or clinically promising, methodologically sound, systematic research on their efficacy (at least) is needed to justify their continued use.

Summary of Research on the Treatment of Child Conduct Problems

Consistent with the first stated goal of psychotherapy research, several approaches to the treatment of child conduct problems have received empirical support for their efficacy, including PMT, CBT, MMT, and FFT. Although each of these approaches has demonstrated superiority over credible control conditions, CBT approaches have less support for performance-based, socially valid, and long-term change in child behavior; and the MMT and FFT approaches have yet to be replicated by multiple research groups. Psychodynamic approaches, though used widely in practice, do not have evidence supporting their efficacy or effectiveness (and there is some evidence to suggest such approaches are ineffective). Thus, basic research demonstrating favorable outcomes from using the psychodynamic approach must be produced to justify its continued use.

Many studies using PMT, and a few using CBT and MMT, have demonstrated that adding components to existing treatment packages and combining different treatment approaches can enhance therapeutic outcomes. These initial findings are encouraging, and continued research in this area, focused on creating more powerful interventions, is needed, given the pervasive and persistent nature of child conduct problems. Conversely, separate lines of research are sorely needed to dismantle each treatment approach and test the efficacy of individual components in order to identify which are necessary and sufficient for change. Such studies are virtually nonexistent in the research on child conduct problems. This is unfortunate, because the adoption of such studies would likely lead

to a clearer identification of the specific components, and ultimately specific principles, responsible for therapeutic change.

As with psychotherapy research on most psychological conditions, research on child conduct problems has been much slower in addressing questions of mediation and moderation. Each of the treatment approaches discussed specifies hypothesized mechanisms of action; however, only MMT approaches have demonstrated the mediational role of such factors. Indeed, researchers studying each treatment approach should focus on identifying and testing potential mediators of therapeutic change that are specific to that approach (e.g., parent management skills, child problem-solving skills, and the like), as well as mediators that may be common to all psychotherapeutic approaches (e.g., client expectancies, mobilization of hope, and so on). Such investigations of the treatment of child conduct problems have not been performed, and will undoubtedly supply information that is useful to both researchers and clinicians alike.

The limited amount of work that has been done on factors that might moderate the treatment of child conduct problems has examined only a few simple child, parent, and family characteristics. Variables that have been found to moderate treatment outcomes in other areas of psychotherapy research, such as gender, ethnicity, and comorbidity, have not been well examined in the treatment of child conduct problems and warrant attention in future studies (Prinz & Miller, 1991; Webster-Stratton, 1996b). Indeed, not all conduct disorders are the same, and differences in client variables will likely require different treatment approaches and will have different responses to treatment.

The identification of such moderating variables would have implications for the answers to most of the other questions addressed in this review. For instance, are treatments generally less efficacious for children with a comorbid disorder? Are certain treatments more efficacious than others for treating specific comorbid conditions? Does the presence of a comorbid disorder indicate a longer treatment duration, or perhaps different combinations of treatments than would otherwise be most effective? Does treatment for conduct problems have a therapeutic effect on comorbid conditions or are the effects of treatment specific to conduct problems? Questions such as these can be asked for each variable that is found to moderate treatment outcomes for children with conduct problems. The answers to these questions should be used to modify the

manner in which treatment is provided and will likely increase the efficacy and effectiveness of each approach.

Beyond the identification of variables that moderate treatment effects, there must be efforts to examine how they operate. For instance, though researchers know that children with decreased cognitive abilities are more likely to have conduct problems than other children (Moffit, Gabrielli, & Mednick, 1981) and that among children with conduct problems those with decreased cognitive abilities respond less well to treatment, researchers do not understand *why* this is so. Similarly, we do not yet understand why children from families characterized by socioeconomic disadvantage fair worse in treatment. It is possible that these moderators are proxies for alternative variables that actually influence treatment effects. For instance, socioeconomic disadvantage has been associated with low expectancies for therapeutic change, which are predictive of client participation and treatment outcome (Frank & Frank, 1991; Nock & Kazdin, 2001). Each of these moderators is likely not acting in isolation, but in relation to other clusters of moderating factors. For example, it is likely that expectancies for therapy are related to client motivation, adherence, therapeutic alliance, and other possible moderators of therapeutic change. These hypotheses await testing and represent important directions for future research in this area, because these moderators cannot be used to improve the delivery of treatment until the profession has a firm understanding of how they operate. As with tests of mediators of therapeutic change, tests of moderators of treatment will be most efficient and meaningful if guided by theoretical models of dysfunction and change.

Several aspects of the therapist (e.g., structuring and interpersonal skills in FFT) and treatment parameters (e.g., treatment duration, treatment modality, and booster sessions in PMT, CBT, and MMT) have been shown to influence therapeutic change. These preliminary findings suggest that modifying certain aspects of treatment delivery under the direct control of the therapist can enhance therapeutic outcome. This area, also, is one that is relatively unexplored and will likely provide information that will help researchers and clinicians develop more effective and more efficient treatments.

Finally, each of these approaches has gained some level of support for its effectiveness in clinical settings, particularly MMT. Although this is encouraging, much more work is needed in order to demonstrate the usefulness of each treatment approach when applied to diverse, clinically

severe children, in natural settings, by practicing mental health professionals. Different methods of bridging the gap between the laboratory and the clinic have been outlined; however, studies actually implementing these strategies are lacking, though their implementation would likely lead to direct benefits for those families in need of mental health services.

DISCUSSION

The main goals of psychotherapy research are to (a) demonstrate that therapeutic techniques are associated with positive outcomes (i.e., decreased distress, dysfunction, and impairment; increased adaptive functioning); (b) understand the processes or mechanisms through which therapeutic change occurs; and (c) identify factors that influence these changes. Although the importance of these three goals has been discussed over the past several decades, psychotherapy research continues to focus on the question of efficacy and only more recently on effectiveness, and has forgone examinations of mediators and moderators of therapeutic change. Although the favorable result of this narrow focus is a research literature rich with demonstrations of evidence-based psychosocial treatment approaches, many basic questions about the nature of this efficacy must now be answered in order to progress in understanding and implementation of psychotherapy.

One practical way to influence the progression of research is by changing the process by which such work is reviewed, and thus how future research directions are conceptualized. Current methods of reviewing psychological research are limited by content and recommendations that are guided by existing studies rather than by the goals of such research. The result is a restricted emphasis on planning an agenda for future research, which has stunted the progression of psychotherapy research. Evidence of this impediment can be found in a psychotherapy literature that has been stagnant in its focus on the efficacy of therapeutic techniques and approaches, despite periodic prompts to move forward (e.g., Kiesler, 1966; Paul, 1967; Schwartz et al., 1980).

Methods for reviewing the psychological literature in a given area have developed from simple descriptions and discussions of the literature (narrative reviews), to reviews that provide more useful information through quantitative analyses (meta-analytic reviews), to those using a priori criteria to existing studies to generate suggestions about which therapies clinicians should use (reviews of

empirically supported treatments). The main purpose of this article was to elaborate on, and demonstrate the usefulness of, a new method of reviewing psychological literature—the progress review (Kazdin, 2000a). The progress review, using a priori questions based on the stated goals of a given area of research, provides a measuring stick by which to evaluate existing research, as demonstrated in the preceding review of the psychosocial treatment of child conduct problems. Rather than providing a narrative description, an effect size estimate, or a list of recommended treatments (all based on the proposed efficacy of psychotherapy), the result of the progress review is a clear outline of what is known and a resulting list of recommendations to move the field forward most efficiently. The use of periodic progress reviews will ensure that researchers remain focused on all of the interdependent goals of such work. It is hoped that, in addition to being used as a means of consolidating information from individual studies, progress reviews will provide a goal-oriented, practical method of highlighting the areas in which more progress is needed, thus maintaining the forward movement of each research area.

The progress review presented here is a first attempt to apply a set of goal-focused questions to the existing research for a given psychological condition—in this case child conduct problems. The results of this progress review are at once both heartening and discouraging and reflect the general pattern of research questions addressed in most areas of psychotherapy research (Kazdin et al., 1990). More specifically, the current state of psychotherapy research is characterized by a recent surge in the development and evaluation of manualized treatment approaches, which comprise multiple combinations of treatment components shown to be efficacious in treating various, well-specified behavioral problems in laboratory, and sometimes clinical, settings. This progress is impressive and consistent with the first goal of psychotherapy research. Progress in this direction has important implications for the immediate provision of effective therapeutic techniques to service providers. Toward this end, studies should be conducted that test the efficacy of combining existing treatments and adding novel components. In addition, studies sensitive to the unique variables of interest and the differences in treatment delivery associated with evaluating the effectiveness of these treatments deserves special attention (Hohmann & Shear, 2002; Klein & Smith, 1999). This will lead to the creation of the most effective treatments possible and the

fastest benefit to the consumer. Efforts to disseminate these treatments should not only continue, but be accelerated, since many existing efficacious treatments are not in widespread use (Barlow, Levitt, & Bufka, 1999).

In contrast, the long-term goals of psychotherapy research involve increasing understanding of how psychotherapy works and what factors influence therapeutic change. Toward this end, current treatment packages must be dismantled and the efficacy of individual treatment components must be tested. Once efficacious components have been identified, the proposed mechanisms of these components can be evaluated without being obscured by the ineffective components. In addition to mechanism studies, investigations of the moderators of therapeutic change must be conducted. This is not merely an academic exercise but an essential step in the development of the best treatments possible. Armed with the results of these investigations, researchers can reconfigure treatments to maximize their effectiveness and then disseminate these newer, more potent treatments.

Perhaps most important, following this progression of research will provide specific evidence about *what* “works,” and thus make arguments among proponents of different orientations irrelevant. Indeed, the active ingredients of psychotherapy are likely present in varying degrees in the interventions used by adherents of most orientations but are referred to by different names. In other words, there may be a small set of effective principles of change that are common to all treatment approaches, and these effective principles and their mechanisms of action, must be explicated.

There is an inherent tension between the push for the evaluation of current treatments in natural settings and the dissemination of such treatments, and the performance of more experimental work aimed at isolating efficacious treatment components, principles of change, and mechanisms of action. Both represent equally important and necessary pursuits on the way to more effective and efficient treatments, and researchers should continue to explore methods of achieving both of these goals (Chorpita et al., 1998; Norquist et al., 1999). Before this important research can begin, and certainly throughout its development, existing knowledge must be consolidated and conceptualized in a way that provides researchers with a starting point and a road map with concrete directions about how and where to advance in order to achieve all of these goals. The progress review, with its focus on each step of the

evolution from efficacy to effectiveness, is a useful tool well suited for this function. It is hoped that its continued use will ensure the most efficient progress toward the ultimate goals of psychotherapy research.

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NOTES

1. Throughout this article I use the word *efficacy* to refer to treatment outcomes in well-controlled laboratory settings and *effectiveness* to refer to treatment outcomes in clinical settings (see Hoagwood & Hibbs, 1995).

2. Throughout this article I use the word *children* to refer to both children and adolescents, unless otherwise noted.

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