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# The State of Child and Adolescent Psychotherapy Research

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Child and adolescent therapy has progressed considerably, as reflected in the number of controlled studies, their methodological quality, and identification of evidence-based treatments. The progress is qualified by several characteristics of the therapy research that depart from the characteristics of clinical practice. Key areas of research are being neglected and this neglect greatly limits progress and what we know about treatment. Prominent among these is the neglect of research on the mechanisms of change and the moderators of treatment outcome. This article highlights progress, characteristics, and limitations of current therapy research. In addition, a research plan is offered to advance research by: 1) understanding the mechanisms or processes through which therapeutic change occurs; 2) drawing on developmental psychopathology research to inform treatment; and 3) expanding the range of questions that guide treatment research and the range of outcome domains on which treatment conclusions are based.

**Keywords**: Child and adolescent therapy research; therapeutic change; child treatment

## Introduction

Child and adolescent psychotherapy is a very active area of research. Scores of books, journals, and series of articles document the scope of the work (e.g., Lonigan & Elbert, 1998; Kazdin, 2000b; Mash & Barkley, 1998; Rapport, 2001). This activity is particularly noteworthy because for many years child therapy research had received little attention, in sharp contrast to research on adult psychotherapy.[1] This article provides an overview of progress, limitations, and directions for research.

## Overview

Child and adolescent therapy has advanced considerably and the advances are evident in many ways. First, the sheer quantity of controlled treatment outcome studies is vast. As a conservative estimate, over 1,500 controlled outcome studies of psychotherapy for children and adolescents have been completed (Kazdin, 2000a). Second, the quality of studies continues to improve (Durlak et al., 1995). Excellent methodological practices such as evaluating the fidelity of treatment, using treatment manuals, and assessing the clinical significance of therapeutic change have increased in recent years. Third, reviews of research consistently conclude that child therapy is effective (Kazdin, 2000b; Weisz, Huey, & Weersing, 1998). Moreover, the magnitude of this effect, when treatment is compared to no treatment, is rather large (effect sizes ≅ .70). Thus, children who receive therapy are much better off than are those who do not. Fourth, treatments are now available for many clinical disorders including anxiety, mood, attention-deficit/hyperactivity disorder, oppositional-defiant and conduct disorders, and eating disorders, to mention a few (Mash & Barkley, 1998; Morris & Kratochwill, 1998). For several disorders, empirically supported or evidence-based treatments have been identified, i.e., treatments whose effects have been replicated in randomised controlled clinical trials (Christophersen & Mortweet, 2001; Kendall & Chambless, 1998; Lonigan & Elbert, 1998; Nathan & Gorman, 1998). Fifth, clinical practice guidelines have emerged to reflect the compelling evidence that some techniques are clearly the treatment of choice for various child and adolescent problems (e.g., Academy of Child and Adolescent Psychiatry, 1998).

## Evidence-based treatments

The identification of evidence-based treatments warrants special comment. There have been separate and somewhat independent efforts to identify such treatments (e.g., Chambless et al., 1998; *Evidence Based Mental Health*, 1998; Nathan & Gorman, 1998; Roth & Fonagy, 1996). Typically, the criteria for delineating treatments include evidence on behalf of the treatment from studies that: randomly assign subjects to conditions, carefully specify the client population, utilise treatment manuals, and evaluate treatment outcome with multiple measures completed by 'blind' (experimentally naïve) raters (if raters were used). Also, replication of treatment effects beyond an initial study is often required, especially replication by an independent investigator or research team.

Several reviews have identified evidence-based treatments for children and adolescents (see Christophersen & Mortweet, 2001; Kazdin & Weisz, 1998; Lonigan & Elbert, 1998). The treatments are listed in Table 1.

[1] Throughout the paper I use the term children to represent children and adolescents. The focus is on youth approximately 18 years of age and under. Where the distinction between children and adolescents is pertinent, this will be so noted.


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**Table 1.** Treatments for children and adolescents that are evidence-based for key problem domains

| Problem domain | Treatment | For reviews, see |
|---|---|---|
| Anxiety, Fear, Phobias | Systematic desensitistion<br>Modelling<br>Reinforced practice<br>Cognitive behaviour therapy | Ollendick & King (1998) |
| Depression | Cognitive-behaviour therapy<br>Coping with depression course<br>Interpersonal psychotherapy | Asarnow, Jaycox, & Tompson (2001)<br>Kaslow & Thompson (1998) |
| Oppositional and Conduct Disorder | Parent management training<br>Problem-solving skills training<br>Multisystemic Therapy | Brestan & Eyberg (1998)<br>Kazdin (2000c)<br>Sheldrick, Kendall, & Heimberg (2001) |
| Attention-Deficit/Hyperactivity | Psychostimulant medication<br>Parent management training<br>Classroom contingency management | Greenhill (1998)<br>Pelham, Wheeler, & Chronis (1998) |

*Note*: The techniques noted here draw from different methods of defining and evaluating evidence-based treatments. The techniques are those that would meet criteria for well established or probably efficacious (Lonigan, Elbert, & Johnson, 1998) or those with randomised controlled trials in their behalf (Nathan & Gorman, 1998). Evaluation of treatments and identification of those that meet criteria for empirical support are ongoing and hence the above is an illustrative rather than fixed or exhaustive list. Psychostimulant medication is mentioned because this is the standard treatment for attention-deficit/hyperactivity disorder

Perhaps the most conspicuous feature of the list is its brevity, especially when viewed in the context of the 1,500+ controlled studies mentioned previously. Also, hundreds (>550) of child and adolescent therapy techniques are used (see Kazdin, 2000b). Clearly the vast majority of treatments have not been evaluated empirically.

Enumerating treatments, rather than reviewing their respective literatures, cannot begin to convey the scope of advances. For example, evidence on behalf of cognitive behaviour therapy for the treatment of anxiety includes several outcome studies (e.g., Kendall et al., 1997; Flannery-Schroeder & Kendall, 2000) and independent replications (e.g., Barrett, 1998; Barrett et al., 2001). Effects of treatment have been evident up to 6 years after treatment has ended. Similarly, parent management training, probably the most thoroughly investigated psychotherapy for children and adolescents, has strong support. Treatment has been evaluated in scores of randomised controlled outcome trials with children and adolescents varying in age (e.g., 2–17 years old) and severity of oppositional, aggressive, and antisocial behaviour (see Brestan & Eyberg, 1998; Kazdin, 1997). Other treatments, such as a course for adolescents on coping with depression (Lewinsohn & Clarke, 1999), and multisystemic therapy for seriously disturbed delinquent adolescents (Henggeler et al., 1998) also have multiple studies (for reviews, see Cuijpers, 1998; Kazdin, 2000b). Unfortunately, the treatments mentioned here and listed in Table 1 are not widely practised in clinical work. Indeed, treatments commonly used in clinical practice for problems listed in Table 1 have little or no evidence on their behalf, a topic perhaps for another article.

## Limitations of current research

### *Departures of research from clinical practice*

The ways in which psychotherapy is studied depart considerably from how treatment is implemented in clinical practice. Consequently, the extent to which findings can be applied to clinical work can be challenged. Consider some of the key differences. First, children in most therapy studies are recruited rather than clinically referred. They tend to have less severe, less chronic, and fewer comorbid conditions. Also, recruited children are less likely to have impairment in domains often associated with psychiatric dysfunction (e.g., academic dysfunction, poor peer relations). Second and related, nonreferred children come from parents with less psychiatric morbidity, stress, and impairment, from families with less dysfunction and disruption, and from environments that are less disadvantaged. Treatment outcome is likely to be influenced by many of the child, parent, family, and contextual factors that differ between research and clinical practice (see Kazdin, 2000b).

Third, the treatments studied in research depart from treatments used in clinical practice. Many approaches commonly practised in clinical work (psychodynamic therapy, relationship-based treatment, generic counselling) have very sparse empirical literatures (e.g., Barrnett, Docherty, & Frommelt, 1991; Shadish et al., 1993) and occasionally controlled studies question their efficacy altogether (see Kazdin, 2000b). When reviews note that evidence supports the effects of psychotherapy, it is important to bear in mind that this applies to a small fraction of the treatments in use.

Fourth, the way in which treatment is administered in research also departs from the way it is administered in practice. In most research, therapy is of a fixed duration (8–10 sessions), is administered in the schools, in groups, and without the direct involvement of the parents (Kazdin et al., 1990). Moreover the treatments are administered in 'pure' form (e.g., one treatment such as cognitive behaviour therapy or family therapy) rather than the eclectic or combined treatments commonly used in clinical practice (Kazdin, Siegel, & Bass, 1990).

Also, in research treatments are closely monitored and supervised to ensure they are administered well and correctly. The use of treatment manuals, observation of treatment sessions, review of sessions with therapists, and ensuring therapist adherence to treat-

ment can, and indeed, does increase effectiveness (e.g., Henggeler et al., 1997; Huey et al., 2000). The task of monitoring treatment depends very much on a special feature of treatment research, namely, to evaluate one or more treatments as applied to a particular clinical problem. In clinical practice, the therapist is likely to treat individuals with quite diverse problems and hence apply quite different treatments.

There are many other differences between clinical research and practice (see Kazdin, 2003). The differences raise the same general concern, that the findings from therapy research may pertain to therapy executed in a particular way and have little or unclear relation to the effects achieved in clinical practice. Overall, the extent to which results from research extend to clinical work is very much an open question. Mental health professionals differ greatly on whether they use this point as a basis for criticising or continuing the use of unevaluated treatments in clinical work.

### *Restricted focus of psychotherapy research*

Not all of the limitations of contemporary therapy research pertain to the generalisation from research to practice. The narrow focus of research raises its own set of concerns. First, the range of questions evaluated in treatment research is quite narrow. The focus of most studies is restricted to questions about the treatment technique (e.g., treatment vs. control or another treatment) without attention to the many conditions (e.g., child, parent, family characteristics) on which outcomes are likely to depend. Second, most studies focus on reduction of symptoms as the sole criterion for evaluating treatment outcome. Symptom change is an important outcome. However, there are many other domains likely to be relevant (e.g., impairment, school functioning, peer relations) to current functioning and long-term prognosis.

Third, the greatest single limitation from my perspective is the inattention to and seeming disinterest in the question of why or how therapy works. Long-term, the greatest impact of treatment will derive from understanding how treatments work. What processes or characteristics within the child, parent, or family can be mobilised to foster therapeutic change? If we knew the bases of therapeutic change, we might readily optimise the effectiveness of treatment. Of the hundreds of available treatments, there are likely to be a few common bases or mechanisms of therapeutic change. Perhaps such key factors as rehearsal and practice (e.g., symbolic via language, imagery, or behavioural), catharsis (alleviation of the symptoms through expression and release), or the mobilisation of hope are some of the key factors that explain how all or most therapies work. There is a need for much more research that attempts to explain how and why therapy achieves and induces change.

## Developing effective treatments: directions for research

There are major gaps in knowledge about psychotherapy and its effects. Essentially, we do not understand why treatment works, for whom treatment works, and key conditions that optimise therapeutic change. What is more disconcerting than the gaps in knowledge is the geological pace at which research is moving to redress these gaps. The most significant limitation of child and adolescent psychotherapy research is not at the level of individual studies, but rather the absence of a vision or plan to foster systematic progress. In order to fill this gap, I propose a model or general framework to develop the knowledge we need to understand and apply therapy effectively (see Kazdin, 2000b).

### *Steps to develop effective treatments*

There is a great deal we need to understand in order to make treatment effective and to ensure it is applied optimally. Table 2 presents several steps to evaluate different facets of treatment, how treatment relates to what is known about clinical disorders, and how and to whom treatment can be applied to achieve optimal gains (see Kazdin, 2000b).

**Table 2.** Steps for developing treatment

| |
|---|
| *1. Theory and research on the nature of the clinical dysfunction*<br>Proposals of key characteristics, processes, and mechanisms that relate to the development, onset, and course of dysfunction. Efforts to empirically test those processes. |
| *2. Theory and research on the change processes or mechanisms of treatment*<br>Proposals of processes and mechanisms through which treatment may achieve its effects and how the procedures relate to these processes. Studies to identify whether the intervention techniques, methods, and procedures within treatment actually affect those processes that are critical to the model. |
| *3. Specification of treatment*<br>Operationalise the procedures, preferably in manual form, that identify how one changes the key processes. Provide material to codify the procedures so that treatment integrity can be evaluated and that treatment can be replicated in research and practice. |
| *4. Tests of treatment outcome*<br>Direct tests of the impact of treatment drawing on diverse designs (e.g., open studies, single-case designs, full-fledged clinical trials) and types of studies (e.g., dismantling, parametric studies, comparative outcome studies). |
| *5. Tests of the moderators*<br>Examination of the child, parent, family, and contextual factors with which treatment interacts. The boundary conditions or limits of application are identified through interactions of treatment x diverse attributes. |
| *6. Tests of generalisation and applicability*<br>Examination of the extent to which treatment can be effectively applied to different problems, samples, and settings and of variations of the treatment. The focus is explicitly on seeing if the results obtained in research can be obtained under other circumstances. |

*Theory and research on the nature of the clinical dysfunction.* Treatment ought to be connected with what we know about the onset, maintenance, termination, and recurrence of the clinical problem that is the focus of treatment. Hypotheses about the likely factors leading to the clinical problem or pattern of functioning, the processes involved, and how these processes emerge or operate can contribute directly to treatment research. Many of the approaches to psychotherapy have originated from general models of treatment (e.g., psychoanalytic, family, and cognitive-behavioural) that emphasise processes (e.g., thwarted impulses, maladaptive family processes, distorted cognitions) that have wide applicability across disorders.

Testable hypotheses and then tests of the processes hypothesised to be implicated in the clinical problem are needed. For example, if cognitions are proposed to play a pivotal role in the onset or maintenance of a disorder or pattern of functioning, direct tests are needed and ought to be part of the foundation leading toward the development of effective treatment. Research on the nature of the clinical problem is likely to identify subtypes, multiple paths leading to a similar onset, and various risk and protective factors. These characteristics are likely to influence treatment outcome and to serve as a basis for using different treatments with different types of children. An example of such research would be efforts to distinguish among conduct disordered children based on the onset of disorder, patterns of comorbidity, biological and neuropsychological correlates (see Hill & Maughan, 2001). Connections of treatment research with psychopathology research could greatly enrich treatment by suggesting possible intervention targets and moderators of therapeutic change.

*Theory and research on the change processes or mechanisms of treatment.* Conceptual views are needed about what treatment is designed to accomplish and through what processes or mechanisms. Theories of change are distinguishable from theories of onset. The guiding question for therapy research is how does this particular treatment achieve change? The answer may involve basic processes at different levels (e.g., neurotransmitters, stress hormones, memory, learning, information processing, motivation). In turn, these changes may be induced or activated by such therapeutic processes as gaining new insights, practising new ways of behaving, or habituating to external events.

Theories of change must be followed by empirical tests. Do the intervention techniques, methods, and procedures within treatment sessions actually affect those processes that are considered to be critical to the treatment model? At least three steps are required to conduct the requisite research, namely, specifying the processes or factors responsible for change, developing measures of these processes, and showing that these processes change before therapeutic change. This latter requirement is needed to establish the time line, i.e., processes are changing and are not merely concomitant effects of symptom improvement (see Kazdin, 2003). Thus, evidence that the putative process variable (e.g., parenting practices, cognitions, family interactions) and child symptoms have changed at the end of treatment will not do, i.e., demonstrate that one caused, led to, or mediated the other. One way to bring order and parsimony to the 550+ treatments in use is to evaluate mechanisms of change. Some of the mechanisms are likely to have generality across multiple treatments.

*Specification of treatment.* An important requirement for advances is specifying the focus of treatment and what actually is done by the therapist with, for, or to the child (adolescent, parent, or family) during the sessions. Treatments ought to be operationalised, preferably in manual form, so that the integrity of treatment can be evaluated, the material learned from treatment trials can be codified, and the treatment procedures can be replicated in research and clinical practice. Placing treatment into manuals does not rigidly fix treatment or provide a recipe book but rather codifies progress regarding what is essential to include. Much progress has been made on this front and manuals are available for scores of child treatments (see Kazdin, 2000b).

The development of manuals, or at least of informed manuals, is related to research on the mechanisms of therapeutic change. Without knowing how therapy works and what the necessary, sufficient, and facilitative ingredients are and within what 'dose' range, it is difficult to develop meaningful treatment manuals. Much of what is contained in treatment manuals may be low doses of effective practices, ancillary but important facets that make delivery more palatable, superstitious behaviour on the part of those of us who develop manuals, and factors that impede or merely fail to optimise therapeutic change. The difficulty is that without understanding how treatment works, which element in a manual falls into which of these categories is a matter of surmise.

*Tests of treatment outcome.* Obviously, in developing treatment, outcome studies are central. A wide range of treatment tests (e.g., open studies, single-case experiments, full-fledged randomised clinical trials, qualitative studies, and quasi-experiments) can provide evidence that change is produced and that treatment is responsible for the change (see Kazdin, 2003). Outcome studies are the most common forms of research of child therapy and hence this step does not represent a lacuna in research. At the same time, there are several different outcome questions that can be addressed, as elaborated later.

*Tests of moderators.* Treatment effects may vary as a function of characteristics of the child, parent, family, context, therapist, and other influences. Moderators refer to characteristics on which outcome depends. Theory, empirical findings, and clinical experience can inform the search for moderators. For example, we know that many sexually abused children are likely to develop cognitions that the world is a dangerous place, that adults cannot be trusted, and that one's own efforts to influence the world are not likely to be effective (Wolfe, 1999). Based on this understanding of the problem, one might predict that sexually abused youths with these cognitions would respond less well to treatment, as measured by posttreatment prosocial functioning. If these cognitions are not altered in treatment, the children may be restricted in social activities compared to similar children without these cognitions. Perhaps another study using this information would

evaluate if the effectiveness of treatment could be enhanced by including a component that focuses on these cognitions.

Multiple child, parent, family, and contextual factors may influence responsiveness to treatment. The sparse evidence suggests that multiple factors contribute to treatment outcome in the way that risk factors accumulate in predicting onset (see Kazdin, 2000b). Identifying moderators could greatly influence application of treatment with better triage of patients toward interventions to which they are likely to respond. Understanding how and why they exert their influence could have great implications for improving the effectiveness of treatment.

*Tests of generalisation and applicability*. As the treatment is shown to produce change in a particular context or setting, it is useful to evaluate the generality of the findings across other dimensions and domains. Tests of generality of a treatment are similar to tests of moderators but they are less conceptually inspired and more application oriented, i.e., can treatment be applied in different ways, to different people, and in different settings? The extension of findings across diverse samples (e.g., who vary in age, ethnicity, cultural background) and across disorders also reflect generality and applicability.

Mentioned in the prior discussion of limitations of child therapy research was the many ways in which treatment in research departs from treatment in clinical practice. This has led to an emphasis and seeming urgency to address whether effects can be obtained in clinical settings, an important priority to be sure. Yet, tests of generality will profit from knowing why and for whom treatment works so one can ensure that the critical components of treatment are included and that a given client is a good candidate for the intervention.

*General comments*. I have discussed the tasks of understanding treatment in terms of steps, but of course the order does not need to proceed in the way I have presented them. To elaborate and understand a treatment and to be able to optimise the application clinically, these tasks or steps ought to be completed. Typically, the initial study of treatment focuses on treatment outcome and then if the treatment shows promise, other analyses (steps) might be completed. The critical issue is exploring each of the steps and to progress over the course of research.

There are not many examples in child and adolescent (or adult) therapy research in which one can illustrate progression through some subset of these steps. Research on parent management training as a means of treating oppositional and aggressive children illustrates several of the steps. Conceptualisation of conduct problems, research on family processes (inept and harsh discipline practices) that promote the problems, and outcome studies that establish the central role of these practices reflect many of the steps highlighted previously (e.g., Dishion, Patterson, & Kavanagh, 1992; Forgatch, 1991; Patterson, Reid, & Dishion, 1992). Also, many randomised controlled trials have shown that changes in parenting skills lead to reductions in child conduct problems (see Brestan & Eyberg, 1998; Kazdin, 1997). This research not only establishes an effective treatment but provides an empirically supported model of how the problems may develop for many children, how many domains of functioning beyond conduct problems are affected, and how to effect therapeutic change.

The steps outlined previously emphasise theoretical and empirical development and a progression of research along several fronts. Currently, the accumulation of studies is haphazard. The narrow path through which the research has wandered limits what we can say about therapy. A more proactive stance is one that begins with a model of what we need to know in moving from ignorance to knowledge about effective and disseminable interventions. Specifying some of the critical steps and scope of information we need is likely to lead to much greater progress than has been achieved or likely to be achieved with continuation of the status quo.

### *Focus of individual investigations*

The steps previously outlined give an overarching framework for the type of knowledge needed to develop therapy. This can be translated to concrete questions that guide individual investigations. There are several questions we would like to be answered regarding a particular psychotherapy (see Table 3). Progress can be made by ensuring that for a given treatment and clinical problem these questions are addressed systematically. Some finite number of controlled studies might be all that is needed to address some of the questions, after which we could devote research to the more complex issues (e.g., therapy processes, boundary conditions).

The range of outcomes that are evaluated in research too ought to be expanded, beyond the exclusive focus on symptom change. Although symptom change is important, there is no compelling evidence I could find that symptom change, as opposed to reduced impairment or improvements in prosocial functioning, family interaction, or peer relations, is the best predictor of long-term adjustment and functioning. Many other outcomes beyond symptoms are critically important because of their significance to the child, family, and contexts in which the child functions. Table 4 samples key domains that are important to include in outcome research. The relevance of any particular domain may vary by developmental level of the child and clinical disorder (e.g., anxiety, attention deficit disorder) or indeed by subtype of a given disorder. However, for most clinical problems brought to treatment and diagnosed, there are important features of the child's life that are not captured by symptoms. By focusing almost

**Table 3.** Range of questions to guide treatment research

| |
|---|
| 1. What is the impact of treatment relative to no-treatment? |
| 2. What components contribute to change? |
| 3. What treatments can be added (combined treatments) to optimise change? |
| 4. What parameters can be varied to influence (improve) outcome? |
| 5. How effective is this treatment relative to other treatments for this problem? |
| 6. What child, parent, family and contextual features influence (moderate) outcome? |
| 7. What processes or mechanisms mediate (cause, influence, are responsible for) therapeutic change? |
| 8. To what extent are treatment effects generalisable across problem areas, settings, and other domains? |

**Table 4.** Range of outcome criteria to evaluate treatment effectiveness

| |
|---|
| *1. Child functioning* |
| a. Symptoms |
| b. Impairment |
| c. Prosocial competence |
| d. Academic functioning |
| *2. Parent and family functioning* |
| a. Dysfunction (e.g., symptoms) |
| b. Contextual influences (e.g., stress, quality of life) |
| c. Conditions that promote adaptation (e.g., family relations and organisation) |
| *3. Social impact measures* |
| a. Consequences on systems (e.g., school activities, attendance, truancy) |
| b. Service use (e.g., reductions in special services, hospitalisation) |

exclusively on symptom reduction, current therapy research probably underestimates the benefits of child therapy. Indeed, when assessment domains are expanded, treatment of the child has been shown to reduce parent symptoms of psychopathology and stress and to improve family relations (Kazdin & Wassell, 2000; Szapocznik et al., 1989). Clearly, therapy can produce changes well beyond improvements in child symptoms and functioning.

Expansion of the questions and answers (outcomes) of therapy research underscore two areas in need of greater attention. Others can also be identified. First, further attention in research ought to focus on characteristics of the treatment. Disseminability, costs, and acceptability of treatment are three factors that are likely to influence adoption and use by therapists, clients, and third party payers of treatment (see Kazdin, 2003). Second, research ought to expand the range of samples included in therapy research. For example, relatively few outcome studies have evaluated children of adults who have severe disorders (e.g., depression, alcohol abuse), children with mental retardation, physical handicap, and chronic disease; children exposed to physical or sexual abuse and neglect; juvenile offenders, and homeless youth, all of whom have higher rates of clinical dysfunction and represent a high priority for intervention.

## Conclusions

There has been considerable progress in child and adolescent psychotherapy research, as reflected in the quantity and quality of outcome studies and the identification of evidence-based treatments for several problems. Despite the progress, fundamental questions remain about therapy and its effects. As prominent examples, we do not know why or how therapies achieve change, how to optimise therapeutic change, and for whom a particular treatment is well suited. There is a great deal of concern in contemporary research to see the extent to which treatment effects obtained in research generalise to practice. The importance of understanding the mechanisms of action of therapy is heightened by the concern for application in clinical practice. Because we do not understand why or how most treatments work we do not know what facets of treatment are particularly important to extend to clinical practice. This means that relatively weak or less than optimal treatments probably are being tested in research and proposed for extension to clinical practice.

Three broad questions might serve as a guide for child therapy research: 1) What do we want to know about child and adolescent therapy? That is, what are the goals of the research? 2) What type of research is needed to obtain these goals? 3) How can we evaluate the extent of movement and determine whether we are making progress toward the goal(s)? My comments emphasised the first two questions. The third is no less important and consists of monitoring and evaluating progress in a systematic way over the course of years. A given treatment or treatments for a given problem ought to progress through a series of studies, not merely to establish efficacy, but to answer the full range of questions about how the treatment works and why. Progress would be accelerated if there were a plan or model for the types of information we wish to know and then periodic evaluations of the extent to which gaps in knowledge have been addressed. This article illustrates much of the progress that has been made, impediments to progress, and lines of work needed to provide the knowledge base for effective intervention.

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## References

American Academy of Child and Adolescent Psychiatry (1998). Practice parameters. *Journal of the American Academy of Child and Adolescent Psychiatry, 37*, Whole issue 10 (Supplement).

Asarnow, J. R., Jaycox, L. H., & Tompson, M. C. (2001). Depression in youth: Psychosocial interventions. *Journal of Clinical Child Psychology, 30*, 33–47.

Barrett, P. M. (1998). Evaluation of cognitive-behavioral group treatments for childhood anxiety disorders. *Journal of Clinical Child Psychology, 27*, 459–468.

Barrett, P. M., Duffy, A. L., Dadds, M. R., & Rapee, R. M. (2001). Cognitive-behavioral treatment of anxiety disorders in children: Long-term (6-year) follow-up. *Journal of Consulting and Clinical Psychology, 69*, 135–141.

Barrnett, R. J., Docherty, J. P., & Frommelt, G. M. (1991). A review of psychotherapy research since 1963. *Journal of the American Academy of Child and Adolescent Psychiatry, 30*, 1–14.

Brestan, E. V., & Eyberg, S. M. (1998). Effective psychosocial treatment of conduct-disordered children and adolescents: 29 years, 82 studies, and 5275 kids. *Journal of Clinical Child Psychology, 27*, 180–189.

Chambless, D. L., Baker, M. J., Baucom, D. H., Beutler, L. E., Calhoun, K. S., Crits-Cristoph, P., Daiuto, A., DeRubeis, R., Detweiler, J., Haaga, D. A. F., Johnson, S. B., McCurry, S., Mueser, K. T., Pope, K. S., Sanderson, W. C., Shoham, V., Stickle, T., Williams, D. A., & Woody, S. R., (1998). Update on empirically validated therapies, II. *The Clinical Psychologist, 51*, 3–16.

Christophersen, E. R., & Mortweet, S. L. (2001). *Treatments that work with children: Empirically supported strategies for managing childhood problems*. Washington, DC: American Psychological Association.

Cuijpers, P. (1998). A psychoeducational approach to the treatment of depression: A meta-analysis of Lewinsohn's

'Coping with Depression' course. *Behavior Therapy*, *29*, 521–533.

Dishion, T. J., Patterson, G. R., & Kavanagh, K. A. (1992). An experimental test of the coercion model: Linking theory, measurement, and intervention. In J. McCord & R.E. Tremblay (Eds.), *Preventing antisocial behavior* (pp. 253–282). New York: Guilford.

Durlak, J. A., Wells, A. M., Cotten, J. K., & Johnson, S. (1995). Analysis of selected methodological issues in child psychotherapy research. *Journal of Clinical Child Psychology*, *24*, 141–148.

*Evidence-Based Mental Health* (1998). (A journal devoted to evidence-based treatments and linking research to practice.) Vol. 1 (1).

Flannery-Schroeder, E. C., & Kendall, P. C. (2000). Group and individual cognitive-behavioral treatments for youth with anxiety disorders: A randomized clinical trial. *Cognitive Therapy and Research*, *24*, 251–278.

Forgatch, M. S. (1991). The clinical science vortex: A developing theory of antisocial behavior. In D. J. Pepler & K. H. Rubin (Eds.), *The development and treatment of childhood aggression* (pp. 291–315). Hillsdale, NJ: Erlbaum.

Greenhill, L. L. (1998). Childhood attention deficit hyperactivity disorder: Pharmacological treatments. In P. E. Nathan & J. M. Gorman (Eds.), *A guide to treatments that work* (pp. 42–64). New York: Oxford University Press.

Henggeler, S. W., Melton, G. B., Brondino, M. J., Scherer, D. G., & Hanley, J. H. (1997). Multisystemic therapy with violent and chronic juvenile offenders and their families: The role of treatment fidelity in successful dissemination. *Journal of Consulting and Clinical Psychology*, *65*, 821–833.

Henggeler, S. W., Schoenwald, S. K., Borduin, C. M., Rowland, M. D., &. Cunningham, P. B. (1998). *Multisystemic treatment of antisocial behavior in children and adolescents*. New York: Guilford.

Hill, J., & Maughan, B. (2001). *Conduct disorders in childhood and adolescence*. Cambridge: Cambridge University Press.

Huey, S. J. Jr., Henggeler, S. W., Brondino, M. J., & Pickrel, S. G. (2000). Mechanisms of change in multisystemic therapy: Reducing delinquent behavior through therapist adherence and improved family and peer functioning. *Journal of Consulting and Clinical Psychology*, *68*, 451–467.

Kaslow, N. J., & Thompson, M. P. (1998). Applying the criteria for empirically supported treatments to studies of psychosocial interventions for child and adolescent depression. *Journal of Clinical Child Psychology*, *27*, 146–155.

Kazdin, A. E. (1997). Parent management training: Evidence, outcomes, and issues. *Journal of the American Academy of Child and Adolescent Psychiatry*, *36*, 1349–1356.

Kazdin, A. E. (2000a). Developing a research agenda for child and adolescent psychotherapy research. *Archives of General Psychiatry*, *57*, 829–835.

Kazdin, A. E. (2000b). *Psychotherapy for children and adolescents: Directions for research and practice*. New York: Oxford University Press.

Kazdin, A. E. (2000c). Treatments for aggressive and antisocial children. In D.O. Lewis & C.A. Yeager (Eds.), *Child and adolescent psychiatric clinics of North America*, 9, 841–858.

Kazdin, A. E. (2003). *Research design in clinical psychology* (4th ed.). Needham Heights, MA: Allyn & Bacon.

Kazdin, A. E., Bass, D., Ayers, W. A., & Rodgers, A. (1990). The empirical and clinical focus of child and adolescent psychotherapy research. *Journal of Consulting and Clinical Psychology*, *58*, 729–740.

Kazdin, A. E., Siegel, T. C., & Bass, D. (1990). Drawing upon clinical practice to inform research on child and adolescent psychotherapy: A survey of practitioners. *Professional Psychology: Research and Practice*, *21*, 189–198.

Kazdin, A. E., & Wassell, G. (2000). Therapeutic changes in children, parents, and families resulting from treatment of children with conduct problems. *Journal of the American Academy of Child and Adolescent Psychiatry*, *39*, 414–420.

Kazdin, A. E., & Weisz, J. R. (1998). Identifying and developing empirically supported child and adolescent treatments. *Journal of Consulting and Clinical Psychology*, *66*, 19–36.

Kendall, P. C., & Chambless, D. L. (Eds.) (1998). Special section: Empirically supported psychological therapies. *Journal of Consulting and Clinical Psychology*, *66*, 3–167.

Kendall, P. C., Flannery-Schroeder, E., Panichelli-Mindel, S. M., Southam-Gerow, M. A., Henin, A., & Warman, M. (1997). Therapy for anxiety-disordered youth: A second randomized clinical trial. *Journal of Consulting and Clinical Psychology*, *65*, 366–380.

Lewinsohn, P. M., & Clarke, G. N. (1999). Psychosocial treatments for adolescent depression. *Clinical Psychology Review*, *19*, 329–342.

Lonigan, C. J., & Elbert, J. C. (Eds.) (1998). Special issue on empirically supported psychosocial interventions for children. *Journal of Clinical Child Psychology*, *27* (2).

Lonigan, C. J., Elbert, J. C., & Johnson, S. B. (1998). Empirically supported psychosocial interventions for children: An overview. *Journal of Clinical Child Psychology*, *27*, 138–145.

Mash, E. J., & Barkley, R. (Eds.) (1998). *Treatment of childhood disorders* (2nd ed.). New York: Guilford.

Morris, R. J., & Kratochwill, T. R. (Eds.) (1998). *The practice of child therapy* (3rd. ed.). Needham Heights, MA: Allyn & Bacon.

Nathan, P. E., & Gorman, J. M. (Eds.) (1998). *Treatments that work*. New York: Oxford University Press.

Ollendick, T. H., & King, N. J. (1998). Empirically supported treatments for children with phobic and anxiety disorders. *Journal of Clinical Child Psychology*, *27*, 156–167.

Patterson, G. R., Reid, J. B., & Dishion, T. J. (1992). *Antisocial boys*. Eugene, OR: Castalia.

Pelham, W. E. Jr., Wheeler, T., & Chronis, A. (1998). Empirically supported psychosocial treatments for attention deficit hyperactivity disorder. *Journal of Clinical Child Psychology*, *27*, 190–205.

Rapport, M. D. (Ed.) (2001). Special section: Theoretical/conceptual perspectives of select disorders of childhood. *Journal of Clinical Child Psychology*, *30*, 3–113.

Roth, A., & Fonagy, P. (1996). *What works for whom: A critical review of psychotherapy research*. New York: Guilford.

Shadish, W. R., Montgomery, L. M., Wilson, P., Wilson, M. R., Bright, I., & Okwumabua, T. (1993). Effects of family and marital psychotherapies: A meta-analysis. *Journal of Consulting and Clinical Psychology*, *61*, 992–1002.

Sheldrick, R. C., Kendall, P. C., & Heimberg, R. G. (2001). Assessing clinical significance: A comparison of three treatments for conduct disordered children. *Clinical Psychology: Science and Practice*, *8*, 418–430.

Szapocznik, J., Rio, A., Murray, E., Cohen, R., Scopetta, M., Rivas-Vasquez, A., Hervis, O., Posada, V., & Kurtines, W. (1989). Structural family versus psychodynamic child therapy for problematic Hispanic boys. *Journal of Consulting and Clinical Psychology*, *57*, 571–578.

Weisz, J. R., Huey, S. J., & Weersing, V. R. (1998). Psychotherapy outcome research with children and adolescents. In T.H. Ollendick & R. J. Prinz (Eds.), *Advances in clinical child psychology* (Vol. 20, pp. 49–91). New York: Plenum.

Wolfe, D. A. (1999). *Child abuse* (2nd ed.). Newbury Park, CA: Sage.