Youth clinical practice and research have rich traditions and share important goals. Linking the two traditions could capitalize on their complementary strengths. The thoughtful review by Herschell, McNeil, and McNeil (this issue) highlights several efforts at linkage; these could help launch a new generation of collaborative work. In this work, several aims will require attention: (a) building consensus on how to identify empirically supported treatments, (b) matching these treatments with empirically sound assessment and diagnosis in practice, (c) expanding the concept of evidence-based practice to encompass an assessment-intervention dialectic, (d) ongoing testing of the impact of evidence-based care on practice outcomes, and (e) rethinking the model that guides intervention development, by focusing on what is needed for eventual deployment.

Key words: dissemination, empirically supported treatments, clinical child psychology, practice-research collaboration, treatment outcomes, intervention development, assessment-intervention dialectic, diagnosis.


The profession of psychology has come a long way in a single century. Formal designation of psychotherapy as a form of intervention and an area of study can be traced back only about a hundred years (Freedheim, 1992), and inclusion of children in the purview is younger still. Early milestones are etched in our collective history: Sigmund Freud’s (1909/1955) analysis of “Little Hans” through consultation with the boy’s father; Mary Cover Jones’s (1924) use of modeling and “direct conditioning” to help a 2-year-old named Peter overcome fear of a white rabbit. These early interventions have mush-

roomed and morphed into diverse models and methods, practiced by a diverse array of professionals, now touching the lives of as many as 13% of American youth (Achenbach, Dumenci, & Rescorla, 2003) each year at a cost of more than $11 billion (Sturm et al. 2000). With the proliferation of therapies has come a massive expansion in the literature of therapy—theoretical and clinical, as well as empirical—including what may now be more than 1,500 treatment outcome studies involving children and adolescents (see Kazdin, 2000).

Over the same century that produced such growth in the array of therapies and in the treatment literature, another significant trend emerged that forms the backdrop for the very thoughtful review by Herschell, McNeil, and McNeil (2004): the divergence of clinical practice and clinical research. As clinical intervention grew increasingly rich and complex, extensive training and supervision were required to build mastery, forms of certification emerged—together with codification of ethical standards and procedures for enforcement—and practice became a profession, with a distinctive set of requirements and incentives. In parallel fashion, psychotherapy research came to require extensive training and supervision to build mastery, required various forms of certification, developed ethical standards and ways to enforce them, and in the process became a profession, as well, with its own set of requirements and incentives.

The divergence of practice and research over the decades has left us with two rather distinct professional tracks, both focused on similar goals of improving adaptation and adjustment and reducing distress and dysfunction, but operating in rather insular fashion despite their common goals. Many decades of practice have helped build skills in clinical care on the front lines. Decades of research have built a base of tested approaches. A critical challenge for our field is to find ways to link these two traditions to capitalize on their complementary strengths. It is this challenge, in part, that Herschell et al. address in their impressive survey of programs and initiatives focused on dissemination.

The dissemination efforts described by Herschell and colleagues are intriguing, particularly for those of us who have argued for years that science and practice have much to offer one another. Although much of the current dissemination activity is consistent with the general themes our research team has advocated, we
are reminded of the adage, “Be careful what you wish for.” At this juncture, with the concept of evidence-based practice so popular as a sociopolitical movement, special care may be warranted to ensure that the steps taken will actually improve clinical care and clinical outcomes. In this context, the thoughtful review by Herschell et al. suggests several themes that warrant further discussion.

**EFFORTS WITHIN CLINICAL CHILD AND ADOLESCENT PSYCHOLOGY: VALUABLE, BUT JUST A BEGINNING**

Because clinical child and adolescent psychology is an influential part of the mental health provider system for youth, efforts to increase the emphasis on empirically supported treatments within the field are potentially valuable. However, we need to bear in mind that our field provides a relatively small portion of the youth mental health care in North America. Our role is dwarfed by that of the social work profession, with 2.5 times our number of active mental health providers, and by added numbers from the professions of child and adolescent psychiatry, marriage and family therapy, counseling, psychiatric nursing, school psychology, and psychosocial rehabilitation (National Mental Health Information Center, 2003). In addition, pediatrics and family practice operate as a kind of front line for many initial encounters between caring professionals and troubled (or troubling) youths and families. These various professions differ in the degree to which their traditions favor reliance on scientific evidence as a basis for selecting interventions. Indeed, clinical psychology is unusual in the extent to which such thinking is embedded in graduate professional education. What all this means is that clinical child and adolescent psychology, though an important target for dissemination efforts, is not the only target and may also not be the most important or the most challenging.

**WHAT ARE THE “EMPIRICALLY SUPPORTED TREATMENTS”? CONSENSUS IS ELUSIVE**

The fact that so many mental health professions interact in the care of young people may also make it difficult to reach consensus on a central question critical to the dissemination process: What are the empirically supported treatments? Recently, a group of influential child-advocate attorneys from the National Children’s Law Network met for the purpose of identifying a single cause they could take on that might have a nationwide impact for the good of America’s youth. One cause they considered was increasing the use of empirically supported youth mental health interventions. But when they set out to identify just what those interventions were, things got complicated.

The Network soon discovered that there were multiple sets of evidence-based criteria and that these sets resulted in different lists of treatments, even within psychology. And they learned that psychology as a profession was not at all unified with regard to the value of applying such criteria or constructing lists of treatments. When the Network looked across professions, the complexity was further magnified. Although most lists generated within psychology have relied solely on review of treatment outcome studies, other disciplines have used rather different approaches. For example, the American Academy of Pediatrics publishes Practice Guidelines, and the American Academy of Child and Adolescent Psychiatry publishes Practice Parameters, with both Guidelines and Parameters derived from a blend of treatment outcome findings and the deliberations of expert panels that combine practitioners and researchers. Some in the National Children’s Law Network had anticipated a kind of Food and Drug Administration situation in which there would be either one agency identifying the well-supported treatments without regard to discipline, or a common list of treatments accepted across the disciplines. Instead, they found disagreement both within and across disciplines, and no consensus list of interventions for which they might advocate. In the end, the Network decided to leave youth mental health untouched and to shift their focus to another cause.

By extension, one can imagine the frustration a practitioner or a parent might feel when seeking the best treatment for a child with a particular condition. To which professional discipline; which set of criteria; and which guidelines, parameters, or lists of treatments should the practitioner or parent turn? As Herschell et al. have documented, dissemination of individual interventions is certainly possible, given energy and initiative on the part of treatment developers and advocates. By contrast, if we seek a broader dissemination of sets or “lists” of such treatments, particularly across disciplines,
EMPIRICALLY SUPPORTED TREATMENTS REQUIRE EMPIRICALLY SOUND IDENTIFICATION OF TREATMENT TARGETS

Even if we did have broad consensus within psychology and across disciplines regarding which treatments were empirically supported, the treatments would be expected to help only if paired with the conditions for which they were developed and tested. This pairing process obviously requires accurate identification of the conditions with which referred youths present. Thus, for dissemination of empirically supported treatments to significantly alter the mental health outcomes of referred youngsters, there may also need to be dissemination of empirically sound assessment approaches. This may be a major challenge, particularly when it comes to the most universal basis for treatment decisions in North America: The Diagnostic and Statistical Manual of Mental Disorders (DSM; see, e.g., American Psychiatric Association, 1994).

It certainly is true that the DSM taxonomy is widely used—dissemination of the categories is in fact guaranteed by a mental health delivery system in which a DSM diagnosis is required for reimbursement. However, dissemination of the diagnostic labels may not mean accurate use. A recent study by Jensen and Weisz (2002) found that agreement between DSM diagnoses generated in youth clinical practice and those obtained through standardized diagnostic interviews of the same youngsters failed to exceed chance expectancy for most categories; poor agreement has been reported in other studies using somewhat different approaches (see review in Jensen & Weisz). The findings also suggested potentially harmful effects of the linkage between clinical policy and DSM category use. Note that assignment of at least one diagnosis is typically required for approval and reimbursement of services, and there is usually no incentive to assign additional diagnoses once one has been identified. Our findings showed that the standardized interview was much more likely than clinic staff to assign zero diagnoses (n = 50 versus 1, out of 245 total cases) and that clinic staff were much more likely than the standardized interview to assign a single diagnosis (n = 149 versus 60).

One concern raised by such findings is that even if empirically supported treatments were available in most youth practice settings we might have real difficulty getting them to the youngsters for whom they are best suited, because the assessment and diagnostic procedures now being used may not properly identify those youths. For evidence-based practice to be a reality, empirically supported treatments may need to be paired with empirically sound assessment and diagnosis. Yet the standardized diagnostic interviews for which psychometric evidence is most encouraging are so lengthy and complex to administer that they do not lend themselves to everyday use in clinical practice. More practice-friendly instruments are certainly available—the Child Behavior Checklist (Achenbach, 1991), for example—but their use is eclipsed by both service system requirements and pressure from the agencies that fund clinical trials (e.g., the National Institute of Mental Health) to link intervention choice to DSM diagnosis, thus perpetuating the conundrum.

EVIDENCE-BASED PRACTICE: NOT JUST A LIST OF TREATMENTS, BUT AN ASSESSMENT-INTERVENTION DIALECTIC

Concerning this discussion of treatments and assessment, it is important to add that evidence-based practice should ideally consist of much more than simply obtaining an initial (valid) diagnosis and choosing a matching treatment from a list of ESTs. Indeed, evidence-based practice, in our view, is not a specific treatment or even a set of treatments, but rather an orientation or value system, one that relies on evidence to guide the entire treatment process. Assuming that the initial treatment target has been correctly identified, consulting a list of ESTs may be a useful first step in treatment. However, because clinical trials involve a focus on group differences, and other forms of outcome research (e.g., multiple baseline, single-subject) tend to involve small numbers, each treatment on such lists is likely to be effective for some but not all youths with the target condition in the relevant age range.
Thus, a critical element of evidence-based care will need to be periodic assessment, to gauge whether the treatment selected initially is in fact proving helpful. If it is not, adjustments in procedures will be necessary, perhaps several times over the course of treatment.

An episode of evidence-based care, then, might consist of a series of sessions interspersed with periodic assessments, followed by adjustments in treatment strategy when the evidence suggests such a need. But the dialectic of assess-treat-reassess-adjust treatment is not yet a routine part of our repertoire in the field. Indeed, the dialectic has to be considered in the light of treatment manuals that require numerous sessions to be delivered in a fixed order before the intervention is complete. How the process is conceived and implemented will likely need to vary with treatment target, time required for various treatments to show an effect, reliability of the available assessments, and a variety of other factors. For the long view, though, it is worth noting that identifying lists of ESTs may be but the beginning of an extended process in the development of fully evidence-based care.

DOES DISSEMINATION OF ESTs ENSURE IMPROVED OUTCOMES FOR CHILDREN? HYPOTHESIS TESTING NEEDED

An assumption guiding much of the movement for evidence-based mental health care is that the introduction of empirically supported treatments into clinical practice will improve client outcomes. A truly evidence-based perspective, though, would regard this notion not as a given but rather as a proposition in need of testing. As discussed in the next section (and in Weisz, 2004; Weisz, Jensen, & McLeod, in press), there are good reasons to suspect that moving treatments from efficacy trials into clinical practice may not invariably improve outcomes beyond those found in usual clinical care. This possibility underscores the importance of directly testing the impact of efficacy-tested treatments in the practice contexts to which they are relocated. A case can be made that the most valuable test is one comparing the new treatment to the usual care procedures provided in the practice setting. After all, the bottom line question is whether bringing evidence-based treatments into practice can in fact improve outcomes compared to those of current practice. If not, then why change current practice?

That critical question is, surprisingly, one of the most rarely addressed in the treatment literature. Indeed, in our ongoing reviews of the clinical trials evidence with children and adolescents, our research team finds very large numbers of studies in which an active treatment is compared to a wait-list or no-treatment condition, a substantial number in which two active treatments are compared to one another, but few studies in which an EST has been taken into a clinical practice context and had its outcomes compared to those of usual clinical care in that setting. This is surprising, in view of the primary purpose of bringing ESTs into practice and in view of the fact that achieving good outcomes is a consensus goal shared by researchers and practitioners. In our view, a critical element of evidence-based practice should be pairing dissemination efforts like those so well described by Herschell et al. (this issue) with tests of whether the dissemination generates better outcomes than the interventions already in place. Without this step, our research may tell us only whether dissemination can be done, not whether it helps.

RETHINKING THE MODEL THAT GUIDES TREATMENT DEVELOPMENT AND TESTING

Perhaps the kinds of tests just described will show rather consistently that empirically supported treatments produce better outcomes in clinical practice than usual clinical care does; but our group’s efforts to bring empirically supported treatments into community mental health clinics for use by staff clinicians with referred youths has highlighted for us the challenges involved in moving from efficacy trials to practice applications. This experience has raised questions about whether the model that has guided treatment development and testing in our field is well suited to the task of dissemination. Most of the research that has led to our current collection of tested treatments for youth has implicitly followed the strategy that has guided medical and pharmaceutical research for decades (see descriptions in Greenwald & Cullen, 1984; National Institutes of Health, 1994). This medical-pharmaceutical (MP) model involves a sequence in which treatments are first developed in the laboratory and then tested via a series...
of efficacy experiments; it is only in the late stages of testing, after extensive efficacy research, that the intervention is brought into community settings “to measure the public health impact” (Greenwald & Cullen, p. 330). This model may work reasonably well for interventions that operate directly on the biological system (e.g., psychoactive drugs and medical procedures for cancer treatment) or other targets of impact in which efficacy trial and clinic practice conditions do not differ widely. In such cases, relegating effectiveness tests to the last stages of treatment research may be reasonable, because the intervention may need relatively little adaptation to be downloaded and brought to scale successfully in real-world practice contexts (recent evidence on stimulant treatment of ADHD in community settings, however, suggests that the “bringing to scale” process may not be simple even for some medications; MTA Cooperative Group, 1999).

However, the gap between efficacy trial and clinical practice conditions may be significantly broader for psychotherapies than for biologically focused treatments. For psychotherapies, the gap may include differences in characteristics of the treated individuals (e.g., problem severity and comorbidities) and their families (e.g., income, cultural barriers, life stressors that may interfere with treatment participation); reasons for seeking treatment (e.g., response to ads versus community referral prompted by serious problems or family crisis); the settings in which treatment is done (e.g., organizational factors influencing what treatments and how much can be provided); the therapists who provide treatment (e.g., graduate students committed to the treatment developer and her or his evidenced-based treatment program versus unconstrained clinic staff who may prefer other methods); the incentive system (e.g., paid by the treatment developer to deliver the evidence-based treatment with high fidelity to the manual versus paid by the clinic to see many cases and with no method prescribed); and the conditions under which therapists deliver the treatment (e.g., as part of graduate student training requirements versus as an add-on in the context of productivity requirements, paperwork to complete, and little time to learn a manual and use it to prepare for sessions in advance).

An evidence base comparing efficacy trials and clinical practice has begun to take shape (see e.g., Southam-Gerow, Weisz, & Kendall, 2003) but will require further development, and it will certainly show that differences between efficacy trial conditions and clinical practice conditions are not uniform across all trials or all practice settings. Moreover, it is possible that for some treatments any differences between therapy in efficacy trials and therapy in clinical practice can be bridged through thoughtful refinements in procedure at the time of a dissemination trial. But it seems likely that, for other treatments, these differences between efficacy trial (or “lab”) conditions and clinic conditions may be too substantial to be bridged as simply the final step at the end of a long series of efficacy experiments. In these cases, the number of dimensions along which treatments must be altered to bridge the lab-to-practice gap may make the task of moving from efficacy trials to clinical applications so complex that the task must be made an integral part of the treatment development process. In fact, the same real-world factors that experimentalists may sometimes see as impediments (e.g., extensive child comorbidity, life stresses that produce no-shows and dropouts, therapists with heavy caseloads) and thus attempt to avoid (e.g., by recruiting and screening cases, applying exclusion criteria, hiring their own therapists) may in fact be precisely what must be included, understood, and addressed if we are to develop treatments that work well in practice. Interventions that cannot cope with these real-world factors may not fare well in practice, no matter how strong they look in efficacy trials.

To create the most robust, practice-ready treatments, the field may need to consider a shift from the traditional MP model to a model that brings treatments into the crucible of clinical practice early in their development and treats testing in the practice setting as a sequential process, not as a single final phase. This is the idea behind a deployment-focused model of intervention development and testing (Weisz, 2004), which our group has been implementing in some of our research (e.g., Weisz, Southam-Gerow, Gordis, & Connor-Smith, 2003). The model is geared to ensuring that tests in practice and service settings do occur, and thus to the production of interventions that work well in those settings. There are three primary aims: (a) producing treatments that fit smoothly into everyday practice, working well with clinic-referred individuals treated in clinic settings by
practicing clinicians; (b) generating evidence on treatment outcome in actual clinical practice, the kind of evidence clinicians need most in order to assess the likely utility of the treatments for their settings; and (c) producing a body of externally valid evidence on the necessary and sufficient components, moderators, and change mechanisms associated with treatment impact—evidence that is particularly relevant to practice conditions. The model entails six steps of intervention development and testing, briefly sketched here (for further details, see Weisz, 2004).

The initial step is the development, refinement, pilot testing, and manualizing of the treatment protocol, drawing from theory and evidence on the nature and treatment of the target condition, the clinical literature, and guidance from practitioners who treat young people with the condition concerned. In Step 2, an initial efficacy trial is used to assess whether the treatment (compared to a control group) can produce beneficial effects with recruited symptomatic youth who are treated under controlled conditions. The goal is to determine whether the program is sufficiently promising when delivered under optimal experimental conditions to warrant further development and testing in clinical practice settings with referred youth.

The third step is a series of single-case pilot tests with clinic-referred individuals, treated in clinical settings by research-affiliated therapists who know the protocol well. Guidance from the treatment developer, expert practitioners in the setting, and client families is used to encourage (a) faithfulness to the core principles and the model of change that guide the treatment protocol, and (b) goodness of fit with the clinical setting, practitioners, and clients. As problems of fit are identified, successive modifications are made in the specifics of the treatment protocol and procedures, to satisfy (b) while adhering to (a).

The fourth step involves a series of group-design partial effectiveness studies testing the newly adapted treatment protocol in the context of selected elements of representative clinical care. The idea is to explore, in stepwise fashion, the extent to which the protocol works (a) with referred youths, (b) in clinical care settings, (c) when used by representative practitioners, and (d) when compared to usual care. Inferential power is enhanced by focusing on the various elements of effectiveness testing—for instance, elements (a) through (d)—considered separately and in strategically selected combinations, eventually positioning the protocol for a full test of effectiveness and disseminability in Step 5.

The fifth step entails a series of group-design clinical trials, with the treatment provided to referred clients in the practice setting, by practitioners in that setting who have been trained in the protocol, and with the target treatment compared to usual care. The sixth step of the model is a series of studies focused on the relation between the treatment program and the practice contexts in which it is employed. One aim is to assess the protocol’s staying power—in essence, its continued use, with treatment fidelity and youth outcomes maintained—over time, after the researchers have left the scene. Such staying power, according to the model, will increase to the extent that the treatment program has been designed to mesh well with the clients, therapists, settings, and conditions of real-world clinical practice. Throughout Steps 4–6 variations in design and measurement are used to (a) identify the necessary and sufficient components of the treatment, (b) identify moderators of outcome, (c) assess whether proposed mechanisms of change do in fact operate as mediators, (d) assess treatment costs in relation to benefits, and (e) address other questions about the nature of the treatment and its effects.

Significantly, the deployment-focused model is applicable whether the treatment program in question has been initially derived from practice or from research. Treatments that have emerged from clinical practice may have a head start in that much of the work of fitting treatment to setting has already been done. However, such treatments may require development of a manual and supporting materials, and certainly will require the steps of testing described in the model. In contrast, treatments derived through research are likely to already have a manualized protocol and to have been tested via one or more efficacy trials. In some cases, some of the trials may have elements of clinical representativeness—for example, they may have involved clinically referred youths with severe problems. What may remain is a need to bring the treatments more fully into practice contexts, perhaps beginning with field cases (Step 3) and then proceeding to effectiveness and dissemination tests (Steps 4 and 5). In brief, elements of the deployment-focused
model can be used to facilitate collaboration between researchers and practitioners for treatments derived from research, as well as for treatments derived from practice.

Key to the deployment-focused model is active, ongoing collaboration between practitioners and researchers in the creation of practice-ready interventions. Implementation of the model will require very significant shifts in the ways practice and research are carried out, and very likely a shift in the ways treatment research is construed and funded.

CONCLUDING THOUGHTS: WHERE WE ARE HEADED AND WHAT WE NEED TO KNOW
The work so well described by Herschell et al. (this issue) and the ideas offered in this commentary point to the beginning of a new generation of practice-research collaboration and research. In this process, there is a great deal we all will need to learn if we are to bridge the research-practice gulf that has developed over the past century. We need to begin learning which of the intervention procedures that have grown out of experience in clinical practice are in fact effective. We need to understand what changes are needed in tested interventions to enhance uptake and effective use by clinicians in practice. And we need to learn what aspects of these tested treatments are not changeable without loss of treatment benefit. In a sense, we are standing in the middle ground between practice and science, seeking ways to capitalize on the strengths and wisdom of both communities, to the benefit of children, adolescents, and their families.

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