Evidence-Based Youth Psychotherapy in the Mental Health Ecosystem

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FUTURE DIRECTIONS

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Five decades of randomized trials research have produced dozens of evidence-based psychotherapies (EBPs) for youths. The EBPs produce respectable effects in traditional efficacy trials, but the effects shrink markedly when EBPs are tested in practice contexts with clinically referred youths and compared to usual clinical care. We considered why this might be the case. We examined relevant research literature and drew examples from our own research in practice settings. One reason for the falloff in EBP effects may be that so little youth treatment research has been done in the context of everyday practice. Researchers may have missed opportunities to learn how to make EBPs work well in the actual youth mental health ecosystem, in which so many real-world factors are at play that cannot be controlled experimentally. We sketch components and characteristics of that ecosystem, including clinically referred youths, their caregivers and families, the practitioners who provide their care, the organizations within which care is provided, the network of youth service systems (e.g., child welfare, education), and the policy context (e.g., reimbursement regulations and incentives). We suggest six strategies for future research on EBPs within the youth mental health ecosystem, including reliance on the deployment-focused model of development and testing, testing the mettle of current EBPs in everyday practice contexts, using the heuristic potential of usual care, testing restructured and integrative adaptations of EBPs, studying the use of treatment response feedback to guide clinical care, and testing models of the relation between policy change and EBP implementation.

Research on youth psychotherapy now spans five decades. Randomized trials since the 1960s have tested a broad array of increasingly well-documented treatments for youth mental health and behavioral problems. Many of the studies showed that structured, manual-guided treatments produce significant benefit when compared to control groups of various kinds. Meta-analyses synthesizing these studies across a broad array of treated problems (e.g., Casey & Berman, 1985; Kazdin, Bass, Ayers, & Rodgers, 1990; Weisz, Weiss, Alicke, & Klotz, 1987; Weisz, Weiss, Han, Granger, & Morton, 1995) have shown mean effect sizes in the medium to large range (i.e., .5–.8), by Cohen's (1988) standards. Expert teams in our field have reviewed the evidence and have identified numerous treatments—both specific name-brand protocols, such as Coping Cat (Kendall & Hedtke, 2006a, 2006b) and The Incredible Years (Webster-Stratton &

Reid, 2010), and generic approaches, such as cognitive-behavioral therapy (CBT) for depression—that meet criteria for the status of *evidence-based psychotherapies* (EBPs)—either *well established* or *probably efficacious* (e.g., Silverman & Hinshaw, 2008). That good news has helped to fuel a surge in efforts to disseminate EBPs on a broad scale (e.g., Sanders & Murphy-Brennan, 2010; Scott, 2010).

The news was more mixed, however, in a meta-analysis addressing the practical question of whether the various EBPs produce more benefit than usual clinical care. Usual care is an important standard of comparison, because it is arguably what EBPs have been designed to replace in the various dissemination efforts. Ideally, one would only replace the status quo with something that is reliably superior. The EBP versus usual care meta-analysis (Weisz, Jensen-Doss, & Hawley, 2006) found relatively modest outcome differences between EBPs and usual care, with a number of studies showing either negligible differences or differences favoring usual care over EBPs. The mean EBP versus usual care effect size of .30 was a substantial drop from the mean effect found in previous broad-based meta-analyses (see Figure 1). This effect size, translated into a ''common language effect size statistic'' (McGraw & Wong, 1992), yields a probability of only 58% that a randomly selected youth receiving an EBP would be better off after treatment than a randomly selected youth treated with usual care. In follow-up analyses with an expanded pool of EBP versus usual care studies, we are finding a very similar overall effect, and of importance, we also find a particularly small advantage of EBPs over usual care in (a) studies in which youths were

clinically referred for treatment (as opposed, e.g., to being recruited through ads), and (b) studies in which youths were required to have impairment significant enough to meet criteria for a formal *DSM* diagnosis. Because for many of us in the field, significantly impaired youths and those who are referred for treatment are target groups of primary interest, these particular findings are a cause for genuine concern.

As we have noted elsewhere (Weisz, Jensen-Doss, & Hawley, 2006), one possible reason EBPs may not fare so well with referred youths who have serious problems, in comparison to usual care in practice settings, may be that so little of the treatment research in our field has been done with clinically referred youngsters treated in everyday practice settings. In an examination of the youth randomized trials research database (Weisz, Jensen-Doss, & Hawley, 2005), we found that fewer than 2% of all the studies we identified in a systematic search had involved referred youths, treated by practitioners, in clinical practice settings (see Table 1). One likely effect of this state of affairs is that we researchers have not had much opportunity to learn what is needed to make our well-documented, manual-guided treatments work well in the crucible of everyday youth mental health care—a context in which many real-world factors are at play that we cannot control experimentally. A number of paths may have led us to this state of affairs. One of the most significant may be that the press for a high level of experimental control and precision has been such a powerful part of our discipline, and the research funding needed to carry out randomized trials has tended to require controlled conditions that are easier to achieve in a laboratory clinic context
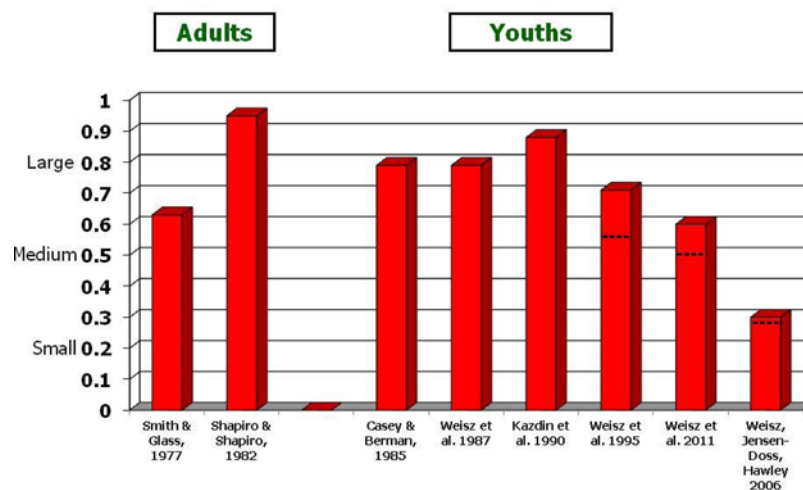
FIGURE 1   Mean effect sizes found in two broad-based meta-analyses of adult psychotherapy effects (Shapiro & Shapiro, 1982; M. L. Smith & Glass, 1977), four broad-based meta-analyses of youth psychotherapy effects (Casey & Berman, 1985; Kazdin et al., 1990; Weisz, Kuppens, & Eckshtain, 2011; Weisz et al., 1987; Weisz et al., 1995), and the Weisz, Jensen-Doss, and Hawley (2006) meta-analysis of RCTs comparing evidence-based youth psychotherapies to usual care. *Note:* Dashed lines in the last three bars show mean effect size when calculated using weighted least squares, adjusting for sample size. Reprinted with permission from John R. Weisz. (Figure appears in color online.)

TABLE 1
Clinical (Un)Representativeness of the Youth Treatment Evidence Base: Youths, Therapists, and Treatment Settings Employed in Outcome Studies

	Anxiety	Depression	ADHD	Conduct	All Studies
How Youths Were Enrolled in the Study:					
% Recruited, Not Treatment-Seeking	90.24	77.78	87.50	60.42	76.69
% Treatment-Seeking, Clinic-Referred	3.66	16.67	12.50	19.79	12.71
% Required Via Court/Justice System	1.22	0.00	0.00	17.71	7.63
% Studies Not Reporting	4.88	5.56	0.00	2.08	2.97
Who Provided the Treatment:					
% Any Researchers/Grads Included	57.32	47.06	45.00	38.54	47.21
% Any Paraprofessionals Included	20.73	11.11	12.50	22.92	19.49
% Any Practicing Clinicians Included	1.22	55.56	10.00	30.21	18.64
% Studies Not Reporting	28.05	11.11	40.00	19.79	25.42
Setting Where Treatment Took Place:					
% Research Settings	50.00	44.44	42.50	48.96	47.88
% Clinical Service Settings	2.44	5.56	0.00	7.29	4.24
% Correctional Settings	1.22	0.00	0.00	7.29	3.39
% Studies Not Reporting	46.34	50.00	55.00	37.50	44.49
Representativeness Sum:					
% Reporting No Rep Factors	92.68	38.89	77.50	55.21	70.76
% Reporting One Rep Factor	7.32	50.00	22.50	34.38	24.15
% Reporting Two Rep Factors	0.00	5.56	0.00	8.33	3.81
% Reporting All Three Rep Factors	0.00	5.56	0.00	2.08	1.27

Note: ADHD = attention deficit hyperactivity disorder. Adapted from Weisz, Jensen-Doss, and Hawley (2005). Reprinted with permission from *Annual Reviews.*

than in everyday clinical practice. Whatever the various reasons for our traditionally heavy focus on highly controllable study contexts and conditions, it should probably come as no surprise that when we move our treatments—however strong their efficacy evidence may be—into everyday care contexts and pit them against the treatments currently used by practitioners in those contexts, our EBPs may not look so dominant.

As a complement to the large body of efficacy trial evidence, based on conditions in which researchers have a high level of control, a smaller but expanding body of research over the past two decades has been based in real-world treatment settings and has focused on clinically referred youngsters treated by practitioners. As participants in that work, and consumers and fans of related work by others, we have a number of ideas about why the EBPs that look relatively strong in so many efficacy trials may show less impressive effects in representative treatment contexts, and when compared to clinically representative *usual care* conditions.

WHEN EBPs MEET THE YOUTH MENTAL HEALTH ECOSYSTEM

One way to think about the challenges EBPs face when used in everyday treatment contexts is that they are being moved from an efficacy experiment context into the much more complex and dynamic youth mental health eco-system. This system includes multiple layers, some of

which we identify here (see also Table 2). To fill out the picture, we illustrate with examples from our experience implementing EBPs in everyday clinical practice settings, most often public community mental health clinics.

Clinically Referred Youths

Considerable research shows that the youths who are referred for treatment in service settings tend to differ in several ways from those seen in research settings, including university-based research clinics. Referred youths often have high levels of comorbidity and co-occurring problems (Angold & Costello, 1993; Angold, Costello, & Erkanli, 1999). Although some important randomized trials in our field have also included significant numbers of comorbid youths, and a number have examined comorbidity as a predictor and moderator of effects (as reviewed by Ollendick, Jarrett, Grills-Taquechel, Hovey, & Wolff, 2008), direct comparisons suggest that youths in community clinics have higher rates of comorbidity and externalizing behaviors, and higher rates of reported problems than youths from research clinics (e.g., Ehrenreich-May et al., 2011; Southam-Gerow, Chorpita, Miller, & Gleacher, 2008; Southam-Gerow, Weisz, & Kendall, 2003).

Our experience with community clinic youths has also been that their comorbidity is often combined with shifts in the nature of the most pressing problems during episodes of treatment. As an example, in some of our cases involving comorbid oppositional behavior and

TABLE 2

Components and Characteristics of the Youth Public Mental Health Ecosystem That Can Impact the Use of Evidence-Based Psychotherapies

Participants	Characteristics
Clinically Referred Youths	Comorbidity and co-occurring problems; high rates of externalizing problems; frequent crises and shifts in most pressing needs during treatment
Families & Caregivers	Relatively low-income; high stress; caregiver and sibling psychopathology; complex family systems and single-parenthood; ethno-cultural diversity; seeking help for youth problems of daily functioning not diagnoses
Practitioners	Differing theoretical orientations and educational backgrounds with limited exposure to EBPs; large caseloads; diverse caseload with broad array of problems; minimal to no time for treatment preparation, supervision, and additional training; fee for service or salaried with high productivity requirements
Provider Organizations	Extreme financial pressures resulting in staff layoffs; shrinkage in the percent of salaried employees and increases in the percent of fee-for-service employees; escalating productivity requirements; significant staff turnover; minimal incentives and potential financial risk for investment in EBP trainings
Network of Youth Service Systems (i.e., Primary Care, Juvenile Justice, Schools, Child Welfare)	Rules, regulations, and procedures of the systems make it difficult to work together; systems may work against each other based on tradition and policies; difficult to implement EBPs across various systems
Policy Context	Reimbursement is based largely on categories of care provided and amount of time provided, not on the nature of the intervention or whether it is supported by scientific evidence; no real policy or fiscal incentives to using EBPs; changes in political leadership impact mental health care system

Note: EBP = evidence-based youth psychotherapies.

depression, therapists using behavioral parent training with a caregiver to address disruptive behavior in the home have had to shift focus to individual youth treatment when depression symptoms surged and risk of self-harm became very real. In another treatment situation, a boy was being treated for a primary depressive diagnosis but developed a severe fear of the ocean after hearing about a shark attack; a family crisis resulted when he refused to go to the beach with his family for a planned family vacation. The therapist shifted treatment to provide psychoeducation about anxiety and develop an exposure plan to address this new symptom. Shifts like these may be needed to address genuine risk or serious family concerns, but such shifts may not match up well with most EBPs, which tend to focus on single disorders or homogeneous clusters of problems and may not have the flexibility needed to address extreme comorbidity or to shift focus when young clients' treatment needs shift midcourse. So, even in cases where these EBPs are being *used with* comorbid youths, the capacity of these interventions to actually *treat* the comorbid conditions may be limited.

Caregivers and Families

The caregivers who bring their children to service settings are often quite different from the caregivers who respond to ads or solicitations for participation in a randomized trial, in part because the latter know from the outset that their son or daughter will be in a study *and* that the treatment will be focused only on

depression, anxiety, or some other specific target of the study. Caregivers who bring their children to service settings ordinarily have not planned to be in a study and may well not be thinking in terms of a diagnosis but instead are seeking help with specific problems of daily living, and often multiple and diverse problems—for example, their child's disruptive behavior in school, poor social skills, and unwillingness to sleep apart from parents. In addition, families seeking youth services at neighborhood clinics tend to be more ethnically diverse, lower in income, and more likely to be managed by a single parent than families seeking services at research clinics (Ehrenreich-May et al., 2011; Southam-Gerow, Weisz, & Kendall, 2003). Our experience has been that EBPs often lack the kind of content that clinicians would need in order to address the full array of treatment challenges that such family variations can present. EBPs that have the flexibility to address rather diverse caregiver backgrounds and concerns may fare better than EBPs that are more narrowly focused and more standardized in their approach.

Even with relatively flexible EBPs, it has been our experience that parental stressors, including parents' own mental health challenges, can significantly interfere with the effectiveness of treatment. In some cases, therapists could not conduct behavioral parent training with caregivers because the parents' own difficulties and coping challenges were so significant that they could not participate in treatment. One caregiver suffered from incapacitating depression and attempted suicide multiple times during her child's treatment. Another

caregiver, an extreme hoarder, was distracted by worry over the investigation by social services to determine whether the home was suitable for her child. A third caregiver was a recently paroled drug and alcohol addict whose struggle for sobriety made it hard to focus on her child's problems. In these cases and others, it was difficult to effectively treat youth externalizing behavior, for which the best evidence favors behavioral parent training, because such training requires active involvement, skill learning, and follow-through by the caregiver. Lack of caregiver involvement has also impacted our use of individual youth CBT for anxiety and depression, when it has meant reduced caregiver support and encouragement for youths in their efforts to learn good coping skills and practice the skills via homework.

Challenges like these are compounded when multiple stressors converge on multiple family members. Stressors such as divorce, job loss, catastrophic illness, and child welfare system involvement (see next) can produce shifting household composition, multiple generations under the same roof, unrelated youths living with foster parents, frequent changes in household composition, additional changes in who the neighbors are, and even which schools the youngsters attend. Clinicians providing usual clinical care in such situations may blend agility, flexibility, and considerable case management in efforts to help youngsters and families reach a few specific practical goals that are sometimes only tangentially related to the identified patient's diagnosis. Often this seems to be exactly what families are seeking. It may be quite different from the diagnosis- and symptom-focused objectives so often associated with most EBPs, and thus it may offer a strong comparison condition for research comparing the benefits of EBPs and usual care.

Practitioners

It is sometimes assumed that a major barrier to implementation and dissemination of EBPs is the resistance of practitioners to these new approaches. This has not been our experience. The practitioners we have encountered have certainly come from a variety of training backgrounds, often with limited exposure to EBPs, and a small number have resisted change, but most have been quite open to learning new methods and expanding their skill set. Where there has been resistance, it has more often reflected a tension between the complexity of referred children and their families (see previous paragraphs) and what is sometimes perceived as the rather restricted focus and relative rigidity of EBP treatment manuals, together with the perception that the role of clinician judgment and decision making is sharply restricted in most EBPs.

A much more central challenge, in our experience, has been the fact that practitioners who work in service settings differ along so many career-related dimensions from the research therapists (e.g., faculty members, postdoctoral fellows, graduate students, researcher-employed therapists) who often treat participants in efficacy trials (see details in Weisz & Addis, 2006). Practitioners have made very different career choices than research therapists, and accordingly have very different career objectives; they may also have less patience with the minutia of experimental control for reasons that become clearer as one understands their working conditions and pressures. It is important to note that the caseloads of most youth practitioners encompass a broad array of disorders and referral problems, and this may limit the perceived value of investing lots of time to learn an EBP that focuses on only one disorder or a homogeneous cluster of a few problems. More broadly, most practitioners operate within a markedly different incentive and regulatory system than that of research therapists. The latter may be paid by a research grant to immerse themselves in learning and practicing the one specific treatment manual being tested, preparing for each session with the manual, and devoting significant time to case consultation-supervision, to hone their skills in the one specific treatment being tested, for one specific problem or disorder; and doing these things fits their career objectives quite well. By contrast, practitioners, in their everyday work, are commonly expected to treat a broad variety of conditions—such that one specific treatment for one disorder could never suffice—and under an increasingly restrictive compensation system that includes productivity requirements for salaried therapists (e.g., 70% of all work time must be billable hours) and an increasingly common model called "fee-for-service" employment, in which therapists are paid *only* for hours that are actually billed, with no pay for no-shows or for clinical activity that is not authorized for reimbursement by insurers. (Although we refer here to public practice, as in community mental health clinics, much of this discussion applies to private practice as well.)

Under these conditions, practitioner time devoted to training in a new treatment model, time spent in supervision on cases treated with that model, or time devoted to preparing for treatment sessions using that model—none of which would be billable—could result in failure to meet productivity requirements, loss of income, or both. The loss of income is not a minor consideration. In one of the states involved in our research, fee-for-service practitioners earn about $30 per treatment hour (most of the reimbursement for every hour goes to the clinic, to pay for building and operating costs); there is no reimbursement when a youngster misses an appointment. In clinics where the no-show rate is 50%, these

clinicians earn an effective wage of about $15 per hour. Any EBP implementation effort that threatens such a modest level of compensation by adding more nonbillable hours to the practitioner's workday may be seen as simply unrealistic. Efforts to disseminate EBPs that cannot find ways to address such practitioner disincentives may not be able to build the level of expertise in the EBP that is required for effective treatment.

Provider Organizations

Many of the factors that can make EBPs tough for practitioners to implement effectively are actually the downstream effects of conditions in the organizations where the practitioners work. The research of Glisson and colleagues (2008) has shown that organizations with norms and expectations characterized by high levels of rigidity (i.e., little flexibility in carrying out jobs) and resistance (i.e., little interest in new ways of providing services), and low levels of proficiency (i.e., up-to-date knowledge), are less likely to support efforts to implement EBPs. In contrast, organizations that promote high levels of proficiency show an increased likelihood of adopting and sustaining EBPs (Aarons et al., 2012). Moreover, youth outcomes have been found to vary with characteristics of the organizational culture and climate (Glisson & Green, 2011). In general, the research suggests that organizational characteristics can influence whether new practices will be taken up by practitioners in the first place and, if taken up, how faithfully they will be implemented and how effective they will be in improving outcomes.[1]

Beyond the culture and climate created by internal forces within organizations, a variety of external factors can have massive impact. Survey research by the Research Network on Youth Mental Health (Schoenwald, Kelleher, Weisz, & the Research Network on Youth Mental Health, 2008) documents the financial pressures faced by youth mental health provider organizations and the very real risk of deficit and default that hovers over these organizations. For example, Schoenwald and colleagues found that more than 20% of their national sample of 200 youth-serving mental health provider organizations ended their most recent year in deficit (Schoenwald et al., 2008). As the fiscal leash tightens within these organizations, a cascade of effects results, potentially including staff layoffs, shrinkage in the percentage of salaried employees, concomitant increases in the percentage working fee-for-service,

escalating productivity requirements, and escalating staff turnover as practitioners find the pressure and financial stress unworkable and move to private practice or different lines of work. Clinical service organizations facing financial threat may be reluctant to invest funds and resources in EBP training and skill building for their staff, particularly given the knowledge that a significant percentage of the newly trained staff may leave the organization each subsequent year. Our most recent tally of community clinic partners in our implementation research shows that 66% of the practitioners trained in EBPs left their clinic over the most recent 4-year period, illustrating why clinic CEOs and administrators may be reluctant to invest heavily in EBP training. For those organizations that do take the plunge, fiscal and personnel concerns may lead to a very cautious, limited effort on the EBP implementation front, and this in turn may limit the potential for beneficial effects.

Such barriers in the outpatient mental health clinic setting highlight the value of making multiple youth service settings potential targets for implementation of EBPs, including some whose primary mission is not mental health care. Some excellent work has been done, for example, in pediatric primary care settings, child welfare departments, juvenile justice programs, home-based initiatives, and schools. Each of these settings has ecological validity as a context in which young people experience mental health problems and in which at least some effort at mental health care is already being undertaken. It is in schools, for example, where some research suggests that a majority of youths who receive mental health services received their initial intervention (Farmer, Burns, Phillips, Angold, & Costello, 2003; Leaf et al., 1996). Moreover, some of the most encouraging findings in our field involve improvements in youth functioning when EBPs are introduced into juvenile justice systems (Henggeler & Schaeffer, 2010) and child welfare programs (D. K. Smith & Chamberlain, 2010), suggesting genuine potential for successful EBP implementation.

The Network of Youth Service Systems

Young people with mental health problems are often embedded within a complex network of agencies, service programs, and contexts that focus on dimensions other than mental health—including most of the entities identified in the previous paragraph. These programs and systems do not always operate in concert, and they may sometimes work at cross-purposes with one another and with specialty mental health services. The rules, regulations, policies, traditions, and procedures of the various service systems—together with difficulties in communication between their personnel—can at times make it difficult to implement EBPs in the ways they are designed to be used.

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[1]Although school-based mental health care is not the focus of this article, we should note that schools are important components of the youth mental health ecosystem, and another context in which organizational factors may have a substantial impact on EBP implementation, as thoughtfully discussed by many experts (see, e.g., Domitrovich et al., 2008; Forman, Olin, Hoagwood, Crowe, & Saka, 2009; Schaeffer et al., 2005).

Examples of these system clash difficulties abound in our implementation and effectiveness research. One adolescent boy being treated for anxiety was a ward of his state's child welfare program and had been placed with a series of foster care providers. With a recent relocation for a new foster placement in late summer, the boy's most severe fear was that he would not be able to start his new school at the beginning of the fall term, and would thus enter school behind in school work and after other teens had formed social networks that did not include him. His fear turned out to be well founded; problems in coordination between child welfare and school district personnel led to a 3-month delay in school entry, major academic and social problems—just as the boy had anticipated—and real difficulties in his ability to use CBT effectively. In another case, a child with serious conduct problems was assigned a therapist who planned to use behavioral parent training with the child's adoptive parent. The parent appeared at the first session with the child's caseworker, who explained that it was the child who had the problem, not the parent, so the parent would not be doing any of the treatment. In a third example, a child advocate persuaded a judge to rule that behavioral parent training had to be stopped because this advocate, an individual who had no clinical training, did not consider that to be the right treatment. In each of these examples, and many others we could cite, evidence-based interventions were made more challenging—or halted altogether—by conflicts within the service system network, often between honorable people trying to do good work, each within the framework and values of his or her particular profession and program.

The Policy Context

As documented in extensive research (see Schoenwald, 2010), diverse dimensions of public policy can set the context—for good or ill—within which EBP implementation efforts take place. In most states, the default policies for mental health care are driven by insurance programs, including Medicaid. Under these programs, reimbursement is based largely on the categories of care provided, and on the amount of time devoted to the care, without regard to the nature of the intervention or whether it is supported by any scientific evidence. Under these conditions, there are no real policy or fiscal incentives for financially strapped service organizations or individual practitioners to devote scarce resources to building skills in EBPs, or taking all the steps needed to ensure that the EBPs are delivered with high fidelity. Instead, there are significant *dis*incentives to taking these steps, as noted previously.

In our experience, political changes at the state level can dramatically impact the mental health system. Statewide elections, for example, can lead to massive turnovers at the top, and sometimes the vast middle, of the mental health personnel pyramid. Following one particular election, state leaders with whom we had built relationships and with whom we shared a vision of broad EBP implementation were suddenly out, and a whole new team was in place—a team composed of people we had never met, who knew nothing of all the prior planning with their predecessors. The implementation vision thus had to be scaled back, and important elements cancelled or put on hold.

Even when state and area leaders remain in place, state, county, and municipal budgets can be highly variable from year to year. During hard times, which many states are now facing, cost-cutting can lead to reduced reimbursement rates, hiring freezes and thus increased workloads for clinicians and clinic administrators, and paralysis in any discussion of methods for advancing implementation. Indeed, when resources shrink, the focus often shifts to maintenance and survival, with reduced prospects for any new ventures, including those focused on youth mental health.

RESEARCH STRATEGIES FOR ADVANCING EBPs WITHIN THE ECOSYSTEM

In our view, identifying, understanding, and learning how to address EBP challenges in the youth mental health ecosystem should be high on the research agenda for clinical child and adolescent psychology. Several strategies may hold promise, including those we describe here.

Using the Deployment-Focused Model of Treatment Development and Testing

One of the general strategies we have followed for the last decade and a half has been—stated simply—to make treatment outcome research look as much like everyday treatment within the ecosystem as possible. This approach, which we call the *deployment-focused model* of treatment development and testing (Weisz, 2004; Weisz & Gray, 2008; Weisz, Jensen, & McLeod, 2005), entails focusing intervention research—from an early point in its evolution—on the treated individuals, treating clinicians, and practice settings for which the intervention is ultimately intended by the developer. In our case, this has meant doing most of our research with clinically referred children (not children recruited through solicitations or ads), with the treatment carried out in clinical service settings in the community (not in a university), by practitioners who do treatment for a living (not faculty, students, or research employees).

This has also meant that we create study designs that compare outcomes of the target interventions being studied to outcomes of the interventions youngsters in

these settings would be most likely to receive from the practitioners under usual care conditions. Such a design helps answer the critical question of whether a proposed new intervention—EBP or other—represents an improvement not just over an inert control condition but, instead, over an active intervention representing what the treated youths would have received under normal circumstances when professionals are genuinely trying to help them. That question—that is, can EBPs outperform usual care—is arguably at the heart of whether implementing EBPs warrants the time and cost involved. Our research following the deployment-focused model has presented us with all the challenges described in this article. However, it has also given us an invaluable opportunity to learn about, and begin addressing, the many obstacles EBPs will need to confront and overcome if they are to gain widespread use within the ecosystem on which this article is focused. As shown in Table 1, our 2005 analysis of the youth treatment outcome research literature (Weisz, Jensen-Doss, & Hawley, 2005) showed that research following the deployment-focused model was quite rare at that time. However, there seems to be considerable growth since then, and this could be very helpful in efforts to build EBPs that are effective within everyday practice contexts and conditions.

Our own applications of the deployment-focused model have led to an array of findings, some likely to be encouraging and others discouraging to EBP developers. In each case we have learned a great deal, as we describe next.

Testing the Mettle of Standard EBPs in Everyday Practice Settings

In two of our studies, we designed parallel tests of CBT for anxiety and CBT for depression in Los Angeles area community mental health clinics, using them exclusively with clinically referred youths treated by clinicians employed in those clinics. In each study we randomly assigned both children and clinicians to CBT or to usual care in the clinics. Clinicians in the CBT condition received CBT training and supervision—CBT for depression in one study (Weisz et al., 2009) and CBT for anxiety in the other (Southam-Gerow et al., 2010). CBT for depression required significantly less time and was less costly than usual care, and CBT for both depression and anxiety was associated with significantly less use of additional services (including medication in Weisz et al., 2009) than was usual care. However, in neither study did CBT produce significantly better clinical outcomes than usual care; instead, both groups in both studies showed clinical improvement rivaling that seen in prior efficacy trials of CBT. These studies, combined with other research comparing EBPs to usual care

(see, e.g., Weisz, Jensen-Doss, & Hawley, 2006), represent a potentially useful "stress test" for EBPs. As a field, we could profit from further tests in this form, helping us understand which of the treatments that look strong in efficacy studies do, and which do not, outperform those treatments that are already available in the youth mental health ecosystem.

Capitalizing on the Heuristic Potential of Usual Care

Two aspects of the EBP versus usual care comparison research suggest that, as a field, we may have a good deal to learn from careful study of usual care in its various forms. Although it has been discussed thus far as a potentially valuable control/comparison group in tests of EBPs, it is possible that some forms of usual clinical care may be effective, and thus may be a source of ideas on how to make treatment work within the youth mental health ecosystem. It is worth noting that in the CBT versus usual care studies by Weisz et al. (2009) and Southam-Gerow et al. (2010), both usual care and CBT groups improved markedly, with more than two thirds no longer meeting criteria for their primary diagnoses at the end of treatment; indeed, the improvements in both groups in both studies were comparable to gains seen for CBT in previous efficacy trials. In other words, from a benchmarking perspective, usual care may have been associated with genuine treatment success in these studies. An interesting aspect of our 2006 EBP versus usual care meta-analysis (Weisz, Jensen-Doss, & Hawley, 2005) was the number of individual studies that showed usual care either matching or outperforming EBPs. These findings, shown in Figure 2, suggest the possibility that some of the treatment approaches that have grown up within the youth mental health ecosystem may be effective within that system, and thus that they may have something to teach us about how to make treatment work in real-world contexts. Some of these treatments may have the potential to become EBPs in their own right, if properly tested. Although the idea is intriguing, implementing it is challenging because most studies in the EBP versus usual care genre have provided very little information on what usual care actually consists of.

This situation could change in the future, with the development of new methods for documenting the contents of usual care. These methods include a clinician self-report measure called the Therapy Procedures Checklist (Weersing, Weisz, & Donenberg, 2002) and a direct observation coding system called the Therapy Process Observational Coding System (McLeod & Weisz, 2005, 2010). To illustrate how such measurement approaches might be used to help us sharpen our understanding, consider our Los Angeles community clinic study comparing CBT for youth depression to usual
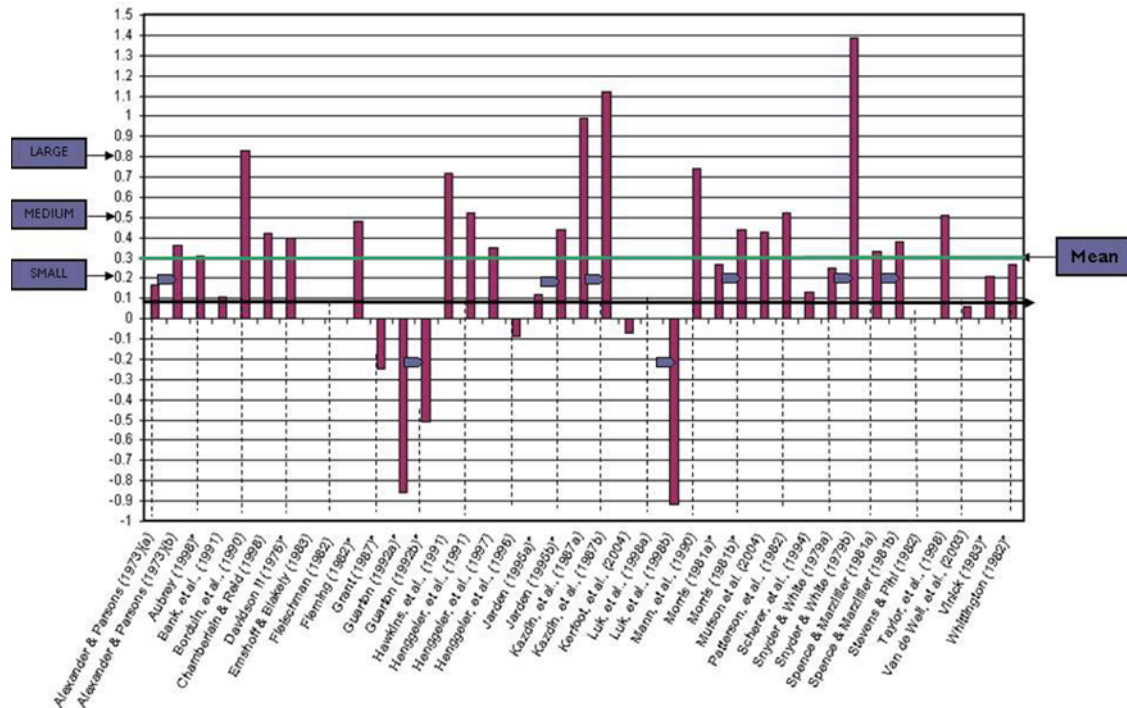
FIGURE 2   Effect sizes of individual studies comparing evidence-based psychotherapies to usual care, in a meta-analysis by Weisz, Jensen-Doss, and Hawley (2006). Horizontal bar at .30 shows mean effect size across the full study set. Reprinted with permission from John R. Weisz. (Figure appears in color online.)

care (Weisz et al., 2009). In a previous meta-analysis (Weisz, McCarty, & Valeri, 2006) we had found that the mean effect size in youth depression RCTs was disappointingly small, compared to the mean effect found for treatments of other youth disorders and problems. In light of this finding, it was interesting to discover, when we applied the Therapy Process Observational Coding System coding to the usual care sessions in our Los Angeles depression study, that therapist use of psychodynamic treatment methods (including, e.g., transference—i.e., noting how the youth's relationship with the therapist resembles other important relationships in the youth's life) predicted reduced parent-reported depression, whereas client-centered, family-focused, *and CBT* approaches did not show any association with outcome. One possible implication, should this finding be replicated in future work, might be that certain approaches to youth depression treatment that are commonly used but not often studied (e.g., psychodynamic approaches) may warrant empirical attention in their own right. In this and other ways, studying the treatments employed in usual care, when they prove effective, may be a way to bootstrap our way to the discovery of treatment methods that work well within the youth mental health care ecosystem—perhaps in part because those treatments were developed and refined within that ecosystem.

Testing Restructured and Integrative Adaptations of Evidence-Based Psychotherapies

The EBP versus usual care findings of Weisz et al. (2009) and Southam-Gerow et al. (2010) suggested to us that simply taking standard EBPs off the shelf and putting them into everyday practice settings may not address the many challenges posed by the youth mental health ecosystem. In many cases what may be needed is more substantial—potentially a redesign of the interventions themselves, focused on those aspects of the intervention that do not fit well into the ecosystem as they are currently constructed. This brings us to the work of the Research Network on Youth Mental Health (Schoenwald, Kelleher, Weisz, & the Research Network on Youth Mental Health, 2008; Weisz et al., 2012). Our network focused in part on structural aspects of many EBPs that might not match the characteristics of clinicians and youths in everyday clinical practice. To address the fact that most clinicians carry diverse caseloads and that comorbidity is common in most treated youths, we designed a treatment protocol that integrated common elements of EBPs for anxiety, depression, and conduct-related problems and disorders, within a flexible modular approach (see Chorpita & Daleiden, 2009; Chorpita, Daleiden, & Weisz, 2005a, 2005b; Weisz & Chorpita, 2012). To address the fact that youth

treatment needs can shift during episodes of care, and that youths are likely to respond well to some aspects of treatment and not so well to others, we developed flowcharts to guide clinician decision making during treatment, and a system of brief weekly assessments designed to provide weekly feedback on each child's treatment response (Chorpita & Weisz, 2009; Weisz & Chorpita, 2012).

The new treatment protocol, together with the weekly feedback system—collectively called the Child STEPs model—was tested in a randomized effectiveness trial involving 10 outpatient treatment sites in Massachusetts and Hawaii. In that trial (Weisz et al., 2012), clinicians randomized to (a) the modular protocol for anxiety, depression, and conduct problems were compared to clinicians who had been randomized to (b) separate standard EBPs (clinicians were trained and supervised in CBT for depression, CBT for anxiety, and behavioral parent training for youth conduct problems), or (c) usual care. On most primary measures of the study—overall weekly symptom checklist, weekly severity ratings on the three ''top problems'' identified by youths and their caregivers, and standardized diagnoses obtained at pre- and posttreatment—children receiving the new modular treatment showed better outcomes than those receiving usual care, and better than those receiving standard EBPs on a number of the measures (see Weisz et al., 2012). By contrast, there was little evidence that standard EBPs fared better than usual care. The findings suggested that redesigning EBPs to fit aspects of the youth mental health ecosystem may hold promise as a general strategy for boosting the impact of EBPs in real-world clinical care. We should stress that our effort is not the first—and it certainly will not be the last—to redesign EBPs to fit the ecosystem. The excellent programs that helped inspire our work include Multisystemic Therapy, designed initially to fit the complex world of youths in the juvenile justice system (Henggeler, Schoenwald, Borduin, Rowland, & Cunningham, 2009), and multidimensional treatment foster care, designed to fit within the child welfare system (Chamberlain, 2003).

Studying the Use of Treatment Response Feedback to Guide Care

One aspect of the Child STEPs model that warrants separate attention is the use of ongoing feedback on individual clients' treatment response, throughout episodes of care. This is evidence-based psychotherapy in a very immediate sense of the term. Since not all components of all EBPs are likely to work all the time with all youths, ongoing feedback throughout episodes of care may help personalize the use of EBPs by helping clinicians understand, during treatment, how their clients are responding to different treatment components,

whether midcourse changes in treatment strategy are needed, which changes are effective, and when treatment gains have been achieved and treatment can end. Giving clinicians feedback on their *adult* clients has been shown to improve outcomes, reduce rates of treatment failure, and lead to longer-lasting treatment effects (Lambert et al., 2003; Shimokawa, Lambert, & Smart, 2010). There is less research on youth treatment, but one recent report (Bickman, Kelley, Breda, de Andrade, & Reimer, 2011) indicated that when clinicians treating 11- to 18-year-olds were provided with ongoing outcome feedback, the youths improved faster and showed a stronger dose–response connection than their peers whose clinicians did not receive the feedback. When Stein, Kogan, Hutchison, Magee, and Sorbero (2010) provided weekly feedback on youths' treatment response to clinicians of 4- to 10-year-olds, they found that caregivers who reported that clinicians discussed this feedback with them at a higher rate also reported higher levels of child functioning and better therapeutic relationships.

It is possible that ongoing feedback could be helpful not only to clinicians and supervisors but to others in the child mental health ecosystem. Studies of adult therapy have shown beneficial effects of feedback provided directly to the clients, including better outcomes in fewer sessions (Anker, Duncan, & Sparks, 2009; Hawkins, Lambert, Vermeersch, Slade, & Tuttle, 2004; Reese, Norsworthy, & Rowlands, 2009), suggesting that extending feedback to others (e.g., youths and their caregivers) might be beneficial. It should be noted that in most of the studies cited here, the treatments used were various forms of usual care. Recent findings with the Child STEPs model (Weisz et al., 2012) suggest the possibility that combining treatment procedures drawn from EBPs with the personalizing potential of frequent outcome feedback may be particularly powerful, warranting attention in future research.

Studying the Impact of Policy Change: Testing Top-Down, Slippery Slope, and Other Models

Because some of the most important barriers to implementation of EBPs lie within the world of public policy, as discussed previously, there may be value in research that focuses on the relation between policy change and implementation success. One can find examples of top-down shifts in which major policy changes appear to have major implications for dissemination of EBPs. Legislation in Oregon and evolving policies of the California Mental Health Services Act, for example, appear to have markedly incentivized training in and use of EBPs for youths and adults (Bambauer, 2005; Rieckmann, Bergmann, & Rasplica, 2011). In a rather different process, which might be called a ''slippery slope to success,'' the scientific success and public recognition

of some EBPs seems to have opened doors for policy change that reduced ecosystem barriers, thus enhancing implementation potential. An apt example can be found in Schoenwald's (2010) account of the evolution and spread of Multisystemic Therapy (Henggeler & Schaeffer, 2010). Growing evidence on the success of this approach, including its cost-effectiveness relative to most juvenile justice program alternatives, produced such a massive surge in demand that it was possible to overcome critical barriers (judicial, legislative, and fiscal) to widespread implementation. For example, approval of enhanced reimbursement rates was essential, because Multisystemic Therapy costs much more than standard mental health reimbursement rates could cover. As this and other barriers were addressed and overcome through negotiations with various policymakers, service systems, and funding sources, Multisystemic Therapy began to spread, such that it has now been adopted in more than 30 states in the United States, and in 10 nations (Schoenwald, 2010). A similar process now seems to be underway for Multidimensional Treatment Foster Care (Smith & Chamberlain, 2010).

Multisystemic Therapy and Multidimensional Treatment Foster Care have been successfully disseminated in part because of the strength of their scientific support, and in addition, because the usual care alternatives for their populations tend to be expensive and relatively ineffective, and the consequences of intervention failure are widely recognized as tragic; so there is a hunger for effective interventions. For many of the problems addressed by EBPs—for example, internalizing problems such as anxiety and depression—we may not have these conditions to build on, so the challenge may be greater. The potential for top-down policy change and slippery slope to success may be there as well—but the specific strategies may need to be different. This all suggests that understanding the interplay between scientific evidence on EBPs and the real-world policy changes that may be needed to get those EBPs out into the world of everyday practice could be a worthwhile goal for research in the years ahead. Of course, that kind of research would only be appropriate for treatments that are truly effective within the youth mental health ecosystem. Building a collection of such treatments is a critical first step.

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