

INVITED COMMENTARY

Advances Toward Evidence-Based Practice: Where to From Here?

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Evidence-based practice has a long history; however, attempts to bridge the gap between science and practice have been only partially effective and much work remains to be done. Part of the problem has been the unilateral approach associated with dissemination of research findings to clinical practitioners. In this special series, Goldfried and colleagues (2014–this issue) suggest a two-way bridge, in which practitioners are afforded the opportunity to disseminate their rich clinical experiences to researchers as well. In this manner, a more collaborative working relationship is espoused. Surveys of practitioners on the use of CBT procedures in the treatment of panic disorder, social anxiety disorder, and generalized anxiety disorder are described. The findings are reviewed and limitations associated with the surveys are noted. Finally, future directions are suggested for rapprochement, hopefully resulting in a greater synthesis of research and practice.

Keywords: evidence-based practice; science-practice gap; dissemination

A LITTLE OVER 60 YEARS AGO, Eysenck (1952) published his now (in)famous review on the effects of adult psychotherapy. Boldly, he asserted, psychotherapy practices at that time were no more effective than the simple passage of time. Shortly thereafter, Levitt (1957, 1963) reviewed the child psychotherapy literature and arrived at a similar conclusion. These reviews were not only long overdue; more important, they were highly controversial and led many clinicians and researchers to question the continued viability of the psychotherapy enterprise.

Fortunately, and as noted some years ago by Kazdin (2000), they also served as a wake-up call and led to a host of developments including advances in our understanding of diverse psychopathologies, improvements in our psychiatric diagnostic nomenclature, enhancements in assessment and treatment practices, and developments in experimental designs for the study of processes and outcomes associated with our psychosocial treatments. In turn, these advances resulted in well over thousands of clinical trials and spawned major meta-analyses that critically examined the effects of psychotherapy (see Hofmann, Asaani, Vonk, Sawyer, & Fang, 2012, for a recent meta-analysis of 269 meta-analytic studies). Consistently, these reviews and meta-analyses demonstrate that active psychotherapies (largely cognitive behavioral therapies [CBT], but not exclusively so) perform better than waiting-list and attention-placebo conditions (and, in several studies, outperform pharmacological interventions); moreover, in several studies, it is becoming clear that some forms of psychotherapy work better than others for certain kinds of problems. As a result, much progress has been made and the field of psychotherapy has moved well beyond the simple question, “Does psychotherapy work?” to identify the efficacy of *specific* treatments for individuals who present with *specific* behavioral, emotional, and social problems. The field has also advanced to include questions of *how* these psychotherapies work and the conditions *under which they work* (i.e., questions of mediation and moderation). This is a most exciting time in the field of psychotherapy practice and research. As a profession, we truly have much to offer!

It should be noted that this movement to identify treatments that work is part of a larger zeitgeist labeled “evidence-based medicine” (Sackett, Richardson, Rosenberg, & Haynes, 1997, 2000), which has come to be referred to as “evidence-based practice” in psychology (see [American Psychological](#)

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Association Presidential Task Force on Evidence-Based Practice, 2006). Evidence-based practice is at its core an approach to knowledge and a strategy for improving the outcomes of treatment that uses research evidence to improve client care. It is not wedded to any one theoretical position or orientation. It holds that treatments, of whatever theoretical persuasion, need to be based on objective and scientifically credible evidence. To be sure, evidence-based practice highly values information obtained from randomized control trials (RCTs); however, it also values information obtained from basic research, research on psychopathology, open clinical trials, observational studies, logical intuition, personal experiences, and the testimony of expert clinicians. Some of these latter forms of evidence are not necessarily “bad” or “not useful.” Rather, they are simply less credible and acceptable forms of evidence from a scientific, evidentiary-based standpoint. Still, it must be quickly asserted that they are invaluable in the generation of hypotheses and questions for scientific scrutiny and verification.

The movement to develop, identify, disseminate, and use empirically supported psychosocial treatments (initially referred to as empirically “validated” treatments; see [Chambless & Hollon, 1998](#), and [Chambless & Ollendick, 2001](#), for reviews) has been a controversial one. On the surface, it hardly seemed possible that anyone could or would object to the initial report issued by the Society of Clinical Psychology of the American Psychological Association in 1995 or that the movement associated with it would become so controversial. Surely, identifying, developing, and disseminating treatments that have empirical support should be encouraged, not discouraged, especially by a profession that is committed to the welfare of those whom it serves. Sensible as this may seem, the task force report was not only controversial; moreover, and unfortunately, it served to divide the profession of clinical psychology and related mental health disciplines.

Against this backdrop, much has been written about evidence-based practice and attempts to bridge the gap between science and practice in the last 15 to 20 years (cf. [Davison, 1998](#); [Kazdin, 2008](#); [Norcross, Beutler, & Levant, 2006](#); [Ollendick & King, 2012](#); [Sobell, 1996](#); [Weisz, Ugueto, Cheron, & Herren, 2013](#)). As a result, the gap between science and practice has grown smaller, although it surely still exists. In this provocative set of papers, [Goldfried et al. \(2014–this issue\)](#) have taken an innovative approach to this vexing problem: they argue that a two-way bridge is necessary to close the gap even further. To wit, they suggest it is not enough to simply disseminate research findings to the practitioner (as has typically been the case—a one-way

solution); rather, it is also important for practitioners to disseminate their clinical experiences to the researcher so that a joint consensus on “what works” can be determined (a two-way solution). Their approach is similar to that of the Food and Drug Administration (FDA), which encourages feedback from medical practitioners about how well drugs—once approved for use—fare in the clinical setting. With the FDA, medical practitioners are requested to file incident reports when they encounter problems in the use of any given drug in their routine clinical practice. So, too, here [Goldfried and colleagues](#) actively solicited (via online surveys) the experiences of practitioners on the use of various CBT techniques in the treatment of panic disorder ([Wolf & Goldfried, 2014–this issue](#)), social anxiety disorder ([McAleavey, Castonguay, & Goldfried, 2014–this issue](#)), and generalized anxiety disorder ([Szkodny, Newman, & Goldfried, 2014–this issue](#)). It should be noted that, very much in the spirit of evidence-based practice and all that it implies, the surveys were focused not only on the treatment itself but also on therapist, patient, and contextual variables that might serve as barriers to the effective use, and eventual efficacy, of these interventions. It should be further noted that surveys of clinician experiences with treatment for other disorders are expected to occur in the future. For now, however, the surveys are limited to these three major anxiety disorders. Moreover, they are limited to the experiences of practitioners using CBT. The reason for this restriction appears to be that the evidence base for use of CBT is stronger than it is for other interventions at this time (see [Hollon & Beck, 2013](#), for review). Again, this decision is not unlike that of the FDA, which welcomes feedback on “approved” drugs in routine clinical practice.

What can we conclude from these surveys? What are the limitations associated with the surveys? And, where do we go from here? As is evident in the individual papers, a similar set of questions were posed in the online surveys to the various practitioners (338 clinicians in the panic disorder survey, 276 in the social anxiety disorder survey, and 260 in the generalized anxiety disorder survey). Commonalities in responses across the disorders were evident: treatment techniques commonly used by the practitioners included psychoeducation about the respective disorders; use of cognitive restructuring, examination of behavioral avoidance, and in vivo exposures during the sessions; and assignment of homework activities between sessions and relapse prevention strategies following the interventions.

In reference to barriers to successful treatment, a significant percentage of the respondents (38% to 44%) indicated difficulties associated with arranging

in vivo exposures in the session itself and in between sessions for homework, 37% to 57% indicated patient “resistance” to the directiveness of treatment (e.g., completion of homework assignments, including the in vivo exposures), and 42% to 55% of the respondents indicated the presence of comorbid disorders as well as the chaotic lifestyle of their patients. Other significant barriers to treatment consisted of patient expectations that the “therapist will do all of the work to make things better” (51% to 65%) and that the patients believed their fears or anxiety were very realistic to them and hence difficult to change (52% to 56%). In addition, 30% to 49% of the respondents indicated they did not believe the therapeutic alliance was strong enough to facilitate significant change. Clearly, based on practitioner feedback, the surveys highlight many strengths associated with CBT interventions; interestingly, 78% of the practitioners indicated success in reduction of symptoms in their work with panic disorder patients, 77.6% in their work with social anxiety disorder patients, and 72% in their work with generalized anxiety disorder patients. Still, these high response rates notwithstanding, the surveys also identified problems and barriers associated with the implementation of these effective interventions, as described above. The authors of the individual papers commented on these strengths and weaknesses and offered recommendations to address them.

What are the limitations of the surveys? First, as noted by the individual authors, significant limitations are associated with the on-line survey method. That is, it is unclear whether the responses of the practitioners map onto their actual behavior in treatment sessions. In the psychotherapy supervision arena, it is well known that reports about what transpired in therapy sessions frequently do not match what actually occurred—hence, necessitating live supervision or at least review of videotapes of sessions. Such is also true in major RCTs of treatment outcomes, requiring careful assessment of treatment adherence and competence. Also, reliability of the responses to the surveys was not ascertained. It would have been desirable to have test-retest reliability for a subset of the respondents (even though the surveys were anonymous, a subset of the respondents might have been requested to complete the surveys a second time, say 2 to 4 weeks after the first completion of the survey).

Second, even assuming the reliability and validity of the responses from the surveys, it is quite unclear how “practitioners” were defined and how variability among practitioners was addressed in interpreting the findings. For example, across the three disorders and the three surveys, approximately 20% of the respondents had less than 5 years of experience in conducting psychotherapy (and some were even

graduate students); in addition, about 20% had treated fewer than 10 patients of any one of the selected anxiety disorders and about 33% of the practitioners spent less than 10 hours per week in clinical practice. Moreover, only about 11% of the practitioners spent over 30 hours a week in clinical practice. Are the perceptions of the beginning therapist different from the seasoned therapist? Are the opinions of a therapist who spends less than 10 hours per week in clinical practice different from a therapist who spends over 30 hours a week? It would be interesting if the authors could merge their findings about barriers to treatment across the disorders and to explore their relations in greater detail to levels of experience and average number of hours spent in clinical practice per week. Such could prove quite interesting.

Third, the respondents might constitute a non-representative sample of practicing clinicians, however defined. As noted in the various papers, 50% to 60% of the respondents held the Doctor of Philosophy degree in clinical psychology (whereas only about 5% held the Doctor of Psychology degree and about 10% held the Master’s degree in clinical psychology). According to [Norcross and Karpiak \(2012\)](#), a majority of full-time practitioners these days hold Doctor of Psychology degrees and/or Master’s degrees, not the Doctor of Philosophy degree. One wonders how they—the majority of practitioners—might have responded to these same questions. Of course, given the purpose of the survey to sample practicing clinicians with expertise in CBT, this may have precluded their participation to some extent.

These limitations are not meant to discredit the findings of the surveys or the very important steps that [Goldfried and colleagues \(2014—this issue\)](#) are making to bridge the gap between science and practice by reaching out to clinicians and creating the two-way bridge. To the contrary, this is a most important endeavor, one that is supported by recent efforts of [Stewart and Chambless \(2010\)](#) and by other professional groups (cf. treatments for maltreated children; [Allen, Gharagozloo, & Johnson, 2012](#)). In this latter effort, a nationwide survey of clinicians serving maltreated children in the United States was undertaken. It was shown that many clinicians were not able to identify evidence-based treatments (such as trauma-focused CBT) and, in fact, many were using treatments considered not to be effective (such as nondirective play therapy). Upon follow-up, many of the clinicians indicated they were using the treatments they learned in graduate school and with which they felt most comfortable. Many desired training in the more evidence-based interventions—they were simply using those treatments with which they had familiarity. Thus, reaching out to practitioners is a most important endeavor.

Where to from here? Fifteen years ago, in a 1999 presidential column for Division 12 of APA, I invoked the good words of one of our most important American philosophers, Yogi Berra. In his typically understated fashion, he is said to have quipped, “If you don’t know where you are going, you will end up somewhere else.” In musing upon the gap between science and practice, I stated: “It will be very important for practitioners and researchers to harness their collective energies to resolve the many riddles that remain. Such knowledge is likely to be obtained from working with clients and clinicians in the clinical setting to design practices that hug the terrain of clinical reality and are not merely superimposed upon it” (Ollendick, 1999, p. 2). Such remains true today. It seems like we know where we want to go—scientists and practitioners alike agree that we want what is best for our clients and what works for them; still, we struggle with how to get there.

Building upon the good work of Goldfried and colleagues (2014—this issue) as well as that of Kazdin (2008) and Stewart and Chambless (2010), we need to continue to extend the reach between researchers and practitioners. The ideas for continued rapprochement suggested in this special series may all prove useful and productive: follow up the surveys with a subset of practitioners in focus groups to obtain more qualitative information about the barriers to effective implementation, arrange for clinical roundtables cochaired by practitioners and researchers at major conferences, and encouraging papers in our major journal *from clinicians* on this topic all seem reasonable and doable. In doing so, it also seems critical that we form a good working relationship between practitioners and researchers. It is interesting that 30% to 48% of the practitioners identified a weak therapeutic alliance as one of the barriers to the successful implementation of CBT interventions. How can we take what we know about therapeutic relationships and therapeutic alliances and apply them not only to the successful implementation of CBT interventions but also to address the gap between research and practice to solve this vexing problem? We must work together and “harness our collective energies” to solve this riddle. This is a direction that will require considerable thought and energy, but one that holds considerable promise.

Conflict of Interest Statement

The author declares that there are no conflicts of interest.

References

- Allen, B., Gharagozloo, L., & Johnson, J. C. (2012). Clinician knowledge and utilization of empirically-supported treatments for maltreated children. *Child Maltreatment, 17*, 11–21.
- American Psychological Association Presidential Task Force on Evidence-Based Practice. (2006). Evidence-based practice in psychology. *American Psychologist, 61*, 271–285.
- Chambless, D. L., & Hollon, S. D. (1998). Defining empirically supported therapies. *Journal of Consulting and Clinical Psychology, 66*, 7–8.
- Chambless, D. L., & Ollendick, T. H. (2001). Empirically supported psychological interventions: Controversies and evidence. *Annual Review of Psychology, 52*, 685–716.
- Davison, G. C. (1998). Being bolder with the Boulder model: The challenge of education and training in empirically supported treatments. *Journal of Consulting and Clinical Psychology, 66*, 163–167.
- Eysenck, H. J. (1952). The effects of psychotherapy: An evaluation. *Journal of Consulting Psychology, 16*, 319–324.
- Goldfried, M. R., Newman, M. G., Castonguay, L. G., Fuertes, J. N., Magnavita, J. J., Sobell, L., & Wolf, A. W. (2014). On the Dissemination of Clinical Experiences in Using Empirically Supported Treatments. *Behavior Therapy, 45*, 3–6 (this issue).
- Hofmann, S. G., Asaani, A., Vonk, I. J. J., Sawyer, A. T., & Fang, A. (2012). The efficacy of Cognitive Behavior Therapy: A review of meta-analyses. *Cognitive Therapy and Research, 36*, 427–440.
- Hollon, S. D., & Beck, A. T. (2013). Cognitive and cognitive-behavioral therapies. In M. J. Lambert (Ed.), *Bergin and Garfield’s handbook of psychotherapy and behavior change* (6th ed., pp. 393–432). Mahwah, NJ: Wiley.
- Kazdin, A. E. (2000). Developing a research agenda for child and adolescent psychotherapy. *Archives of General Psychiatry, 57*, 829–836.
- Kazdin, A. E. (2008). Evidence-based treatment and practice: New opportunities to bridge clinical research and practice, enhance the knowledge base, and improve patient care. *American Psychologist, 63*, 146–159.
- Levitt, E. E. (1957). The results of psychotherapy with children: An evaluation. *Journal of Consulting and Clinical Psychology, 21*, 189–196.
- Levitt, E. E. (1963). Psychotherapy with children: A further evaluation. *Behaviour Research and Therapy, 60*, 326–329.
- McAleavey, A. A., Castonguay, L. G., & Goldfried, M. R. (2014). Clinical Experiences in Conducting Cognitive-Behavioral Therapy for Social Phobia. *Behavior Therapy, 45*, 21–35 (this issue).
- Norcross, J. C., Beutler, L. E., & Levant, R. F. (2006). *Evidence-based practice in mental health: Debate and dialogue on the fundamental questions*. Washington, DC: American Psychological Association.
- Norcross, J. C., & Karpiak, C. P. (2012). Clinical psychologists in the 2010s: 50 years of the APA Division of Clinical Psychology. *Clinical Psychology: Science and Practice, 19*, 1–12.
- Ollendick, T. H. (1999). Clinical science and clinical practice: Where to from here? *The Clinical Psychologist, 52*, 1–3.
- Ollendick, T. H., & King, N. J. (2012). Evidence-based treatments for children and adolescents: Issues and controversies. In P. C. Kendall (Ed.), *Child and adolescent therapy: Cognitive-behavioral procedures* (pp. 499–519). New York, NY: Guilford Press.
- Sackett, D., Richardson, W., Rosenberg, W., & Haynes, B. (1997). *Evidence-based medicine*. London: Churchill Livingstone.
- Sackett, D., Richardson, W., Rosenberg, W., & Haynes, B. (2000). *Evidence-based medicine* (2nd ed.). London: Churchill Livingstone.
- Sobell, L. C. (1996). Bridging the gap between scientists and practitioners: The challenge before us. *Behavior Therapy, 27*, 297–320.
- Stewart, R. E., & Chambless, D. L. (2010). What do clinicians want? An investigation of EST training desires. *The Clinical Psychologist, 63*, 5–10.

- Szkodny, L. E., Newman, M. G., & Goldfried, M. R. (2014). Clinical Experiences in Conducting Empirically Supported Treatments for Generalized Anxiety Disorder. *Behavior Therapy, 45*, 7–20 (this issue).
- Weisz, J. R., Ugueto, A. M., Cheron, D. M., & Herren, J. (2013). Evidence-based youth psychotherapy in the mental health ecosystem. *Journal of Clinical Child and Adolescent Psychology, 42*, 274–286.

- Wolf, A. W., & Goldfried, M. R. (2014). Clinical Experiences in Using Cognitive-Behavior Therapy to Treat Panic Disorder. *Behavior Therapy, 45*, 36–46 (this issue).

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