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EVIDENCE-BASED PRACTICE AND PSYCHOLOGICAL TREATMENTS

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A revolution in health care is occurring around the world. Health care strategies that have been the community standard for decades have been brought into question by research evidence, which has led to rapidly changing health care practices (see Barlow, 2004). Psychology has declared itself a health care profession (American Psychological Association [APA], 2001), and the diverse and heterogeneous practice of psychotherapy and related assessment procedures are being influenced by these changes. This chapter outlines historical developments leading to the emergence of the evidence-based practice (EBP) of psychology and summarizes related research and issues. We describe the psychological treatments, their efficacy and effectiveness. Then scientific evidence related to advances in clinical psychology that support the notion of EBP are discussed. These advances include the progress in psychological research informing treatment selection, the specificity of treatments for individual disorders or problems, recent findings suggesting that specific techniques interact with therapist factors, data suggesting that positive therapy characteristics should be complemented with effective techniques, and the development of treatment manuals to assist in the dissemination of psychological treatments and principles. Following the

discussion of these advances, we make a number of suggestions to further improve psychological EBP, including incorporating more process research into clinical trials; ensuring that supervision accompanies the use of treatment manuals and that new treatment manuals include more flexibility and principle-based direction; establishing practice networks; improving the design and reporting of clinical trials; and using stronger, ecologically valid control or comparison groups in research designs. Finally, we describe a possible emerging consensus that EBP will be most effective when integrating therapist skills with specific techniques for specific disorders.

DEVELOPMENTS LEADING TO EVIDENCE-BASED PRACTICE

It is a fairly recent development in the history of clinical psychology and indeed in all of health care¹ that treatments are now described in the context of EBP. Why is there a growing emphasis on EBP? Or, stated another way, why is more attention now being given to practitioners' accountability for the effectiveness and efficiency of health care practices? Several trends have converged in recent years. First, there has been a rapid advancement in the understanding of the nature of various pathologies in recent years, which has in turn led to the development of new, more precisely targeted interventions. Second, clinical research methodologies have improved substantially and have produced new evidence for the effectiveness of interventions. Third, and most important, governments around the world and their health care systems, faced with spiraling costs and specific inadequacies in health care quality, have decided that the quality of health care must improve and that it should be evidence based (Barlow, 1996; Institute of Medicine, 2001).

The costs of health care have steadily increased throughout the past 50 years. In the 1980s, costs reached new heights and appeared to continue increasing at rapid rates, which led stakeholders to the realization that something had to be done. The delivery of health care (including behavioral health care) quickly developed from an industry dominated by independent practitioners and fee-for-service arrangements into a highly organized, commercial industry (Hayes, Barlow, & Nelson-Gray, 1999). Managed care was initially somewhat successful in curbing the rise of health care costs, though often through denial of services. By reducing costs, it has altered nearly every aspect of health care provision, including the services and providers available, the types and numbers of service settings accessible to patients, and the "doses" of treatments that are reimbursable (e.g., the number of sessions for outpa-

¹Historically, the notion that psychotherapy needs to be evidence based can be traced to Eysenck's (1957) classic work on the effectiveness of psychotherapy, which was first received with great controversy. Since then, efforts have grown to demonstrate the efficacy of psychotherapy. In this section we specifically describe how those efforts have converged with health care policy and practice in general.

tient mental health). As is true for all business models, the viability of managed care depends on the maximization of profits. To increase profits while limiting costs and prices, in the early days managed care allowed compromises in or even abandonment of considerations of quality. As quality regulations have begun to be mandated through legislation and enforced through litigation, this issue is beginning to be addressed (National Committee for Quality Assurance, 2004). Many governments around the world have adopted far more active roles in the regulation of health care systems. In the United States, the hope is that the competitive nature of capitalistic enterprises will improve quality; as managed care organizations compete for larger market shares, those offering the best quality at the lowest price will win out. It is not yet clear that this strategy will work in the context of current systems of delivering health care.

The focus on quality of services has led to an increasing emphasis on evaluating the effectiveness of services (Hayes et al., 1999). Clinical practice guidelines for all areas of health care that have the government's stamp of approval are now easily accessible to professionals via the Internet (<http://www.guideline.gov>), and practitioners following these guidelines may in some instances reap various advantages such as increased referrals, differential reimbursements, or exemptions from malpractice liability in an increasing number of states (Barlow, Levitt, & Bufka, 1999). The President's New Freedom Commission on Mental Health (2003) recommended that the nation "advance evidence-based practices using dissemination and demonstration projects and create a public-private partnership to guide their implementation; [and] improve and expand the workforce providing evidence-based mental health services and supports" (p. 25).

Recent developments in psychological health care in the United Kingdom may provide a glimpse of future directions in the United States (keeping in mind, of course, the substantial differences in the organization of health care systems in these two countries). In 1988, the government outlined a policy for mental health services that reinforced the importance of ensuring high-quality evidence-based services for the population and followed it up with a National Service Framework that described how people should be able to gain access to primary care more quickly. In 1996 the National Health System (NHS) Executive Review described the variety of "psychological therapies" used to treat adults and children in the NHS and reviewed evidence for the effectiveness of these treatments. This group concluded that these approaches were effective on the basis of evidence available at that time and offered advice to commissioners, providers, employers, and trainers about how to promote the agenda to provide evidence-based psychological services. This review also acknowledged that access to psychological therapies was limited and uncoordinated and that this situation required increased attention.

In 2001 the NHS underwent a substantial reorganization based on perceptions that quality of care was diminishing, particularly in regard to other

countries with national health services, and the National Institute for Clinical Excellence was established with a mandate to create guidelines for the United Kingdom (see <http://www.nice.org.uk>). The NHS plan that emerged took the process a step further and provided an extra annual investment of over £3,000,000 by 2003 or 2004 to push forward these ambitious goals. Because of the strong evidence for the effectiveness of psychological treatments, and partly because of diminished roles envisioned for psychiatrists in providing psychological treatments, the NHS projected a sizeable gap between supply and demand for psychologists in the near term. To address this problem, the British Psychological Society, in collaboration with the Department of Health and the Home Office, attempted to specify the extent of this projected gap (British Psychological Society, 2004). They concluded that the demand for psychological care had grown significantly and was likely to increase again substantially with the implementation of the National Service Framework. They recommended that the number of clinical psychologists be increased 15% each year over the near term. As a result of the enhanced visibility and demand for clinical psychologists in the NHS, a proposal is now on the table to increase their compensation to bring it on a par with that of physicians in many instances. If clinical psychology in the United States were to fully embrace EBP of psychological treatments, U.S. clinical psychologists may have greater success in receiving increased funding, recognition, and parity with psychiatry.

Definition of Evidence-Based Practice

EBP is the aspiration today for all health care professionals, third-party payers, and policymakers. Evidence-based practice should be differentiated from “empirically supported treatments,” which are only one part of EBP. EBP was defined early on as the “conscientious, explicit and judicious use of current best evidence in making decisions about the care of individual patients” (Sackett, Rosenberg, Gray, Haynes, & Richardson, 1996, p. 71). More recently, this definition has been broadened to include the integration of clinical expertise and patient values with the best research evidence available (Institute of Medicine, 2001; Sackett, Straus, Richardson, Rosenberg, & Haynes, 2000). By *clinical expertise*, Sackett et al. (2000) referred to advanced clinical skills to assess, diagnose, and treat disorders; by *patient preferences and values*, they meant the full inclusion of the patient in an analysis of the likelihood of benefit and risk of failure in EBP using quantitative presentations where possible.

EBP in our view does not mean practice based on probabilistic evidence alone; rather, our current conceptualization of EBP recognizes that clinical skills and experience are necessary to apply the relevant research evidence to individual patients with unique preferences and needs. The expert ability of clinical psychologists to evaluate the strength of the available

research evidence, and from this determine the course of treatment most likely to benefit their specific patients, sets them apart from other behavioral health care practitioners who may also have considerable clinical expertise and sensitivity to patients' individual values.

Clinical Practice Guidelines

EBP was quickly embraced by health care services and policymakers, and the methods for ascertaining empirically supported procedures that emerged, often with the involvement of government agencies, were called "best practice algorithms" or, more frequently, "clinical practice guidelines." The creation of new guidelines has flourished around the world, and they are becoming increasingly sophisticated. Nevertheless, it became apparent early on that it would be necessary to develop procedures to evaluate the adequacy of these guidelines, particularly early guidelines emanating from managed care companies that were little more than thinly disguised cost-cutting mechanisms. Anticipating these problems, the APA created a task force to develop criteria for evaluating guidelines pertaining to psychological interventions (APA, 1995) and updated this effort in 2002 (APA, 2002). The criteria created by the original task force and organized by the dimensions of treatment efficacy and clinical utility are presented in Exhibit 6.1.

PSYCHOLOGICAL TREATMENTS

Psychology is a health care profession, and the evidence base that has developed on the efficacy of psychological treatments points to psychologists as the principal purveyors of these procedures. Elsewhere (Barlow, 2004) it has been suggested that psychologists delineate the heterogeneous nature of psychotherapy to better distinguish the subgroup of procedures that are particularly applicable, on the basis of the best available evidence, to individuals with pathology (either physical or psychological) severe enough to gain entry into the health care system. The proposal is to term these techniques "psychological treatments" (Barlow, 2004) to distinguish them from more generic psychotherapy with a different target such as promoting growth, the ability to love and be loved, and the ability to pursue an integrated and happy life. This endeavor is a very noble undertaking with a history going back thousands of years to Socrates, who stated that "an unexamined life is not worth living," as recorded by Plato (trans. 1996) in his *Apology* (4th century BC, section 38a). However, despite the best efforts of the psychology profession, it is likely that without directly targeting the remediation or prevention of psychopathology or pathophysiology, procedures for addressing this target will not be included in most health care systems. The potential market for life-enhancing psychotherapy certainly exceeds that for psychological treat-

EXHIBIT 6.1

Criteria for Evaluating Treatment Guidelines

TREATMENT EFFICACY CRITERIA

1. Guidelines should be based on broad and careful consideration of the relevant empirical literature.
2. Recommendations on specific interventions should take into consideration the level of methodological rigor and clinical sophistication of the research supporting the intervention.
3. Recommendations on specific interventions should take into consideration the treatment conditions to which the intervention has been compared.
4. Guidelines should consider available evidence regarding patient–treatment matching.
5. Guidelines should specify the outcomes the intervention is intended to produce, and evidence should be provided for each outcome.

CLINICAL UTILITY CRITERIA

6. Guidelines should reflect the breadth of patient variables that may influence the clinical utility of the intervention.
7. Guidelines should take into account data on how differences between individual health care professionals may affect the efficacy of the treatment.
8. Guidelines should take into account information pertaining to the setting in which the treatment is offered.
9. Guidelines should take into account data on treatment robustness.
10. Guidelines should take into account the intervention's level of acceptability to the patients who are to receive the service.

Note. From "Criteria for Evaluating Treatment Guidelines," by the American Psychological Association, 2002, *American Psychologist*, 57, pp. 1054–1057. Copyright 2002 by the American Psychological Association.

ments in emerging health care systems but will likely need alternative models for remuneration.

Efficacy of Psychological Treatments

In accord with the APA Task Force on evaluating guidelines, we now turn to a discussion of the evidence for first the efficacy and then the effectiveness, or clinical utility, of psychological treatments. In the case of psychological interventions, there is now enough evidence on efficacy to influence policy. More and more studies using sophisticated methodological designs and statistical analyses and broad inclusion criteria to maximize generalizability have shown robust effects of psychological treatments for specific psychopathology. The Task Force on Promotion and Dissemination of Psychological Procedures of APA's Division 12 (Society of Clinical Psychology) made an early effort to outline the criteria necessary to determine the extent of empirical support for a particular psychological treatment (APA, 1995). Using these criteria, treatments were classified as "well-established treatments," "probably efficacious treatments," or "experimental treatments."

This effort has been updated several times (Chambless et al., 1996, 1998). Well-established treatments now exist for a wide range of disorders and problems, including anxiety disorders, depression, behavioral problems of childhood, marital discord, sexual dysfunction, chemical abuse and dependence, eating disorders, schizophrenia (in combination with medication), smoking cessation, various physical disorders, and borderline personality disorder, to name a few (Barlow et al., 1999; for descriptions and analyses of specific psychological treatments, see extensive reviews by Barrett & Ollendick, 2003; Kazdin & Weisz, 2003; Nathan & Gorman, 2002; Roth & Fonagy, 2004).

Some of this research on the efficacy of specific psychological treatments in comparison to medication or alternative treatments has been published in the most rigorously reviewed medical journals, from which health care policy often emanates (see Barlow, 2004). When one also considers the vast amount of accumulating evidence in the top journals in psychology and psychiatry, it is clear that the state of the science is impressive and continually improving. Furthermore, as governments and health care systems increasingly support EBP efforts with extensive funding, the infrastructure for extending research into practice is slowly but surely developing.

Treatments that have proven to be efficacious vary in many ways, but they share at least two characteristics. First, these treatments are specific: They are targeted to the particular manifestations of psychopathology or psychological aspects of physical pathology that are distressing the patient and impairing his or her functioning. Second, the techniques are grounded in knowledge gleaned from basic psychological science laboratories and thus incorporate approaches from across schools of psychotherapy on the basis of their evidentiary support. As more psychological treatments are developed and tested in such ways, the lines distinguishing “pure” theoretical camps are blurring. Psychologists now have the tools and research available to select treatments on the basis of what works, rather than what they believe is consistent with their own theories. Unfortunately, policy and practices are only slowly catching up with the research evidence (e.g., see Olfson et al., 2002).

Clinical Effectiveness of Psychological Treatments

In addition to treatment efficacy, which focuses on internal validity, or whether a treatment works in a controlled research setting, it is important in any discussion of practice to consider clinical utility, or effectiveness, which refers to the generalizability, feasibility, and usefulness of interventions in the local settings where they are offered to the public (APA, 2002). Although at this point more evidence is available for efficacy than for effectiveness, the existing effectiveness evidence is promising. For example, in trials of treatments for social phobia and obsessive-compulsive disorder, patients excluded from randomized controlled trials evidenced improvements comparable to patients included when they received the iden-

tical intervention (Franklin, Abramowitz, Kozak, Levitt, & Foa, 2000; Juster, Heimberg, & Engelberg, 1995). Other studies have examined exporting treatments to frontline clinical practice with great success in both acute and long-term outcomes. For example, patients treated with cognitive-behavioral therapy (CBT) for panic disorder in a community mental health center by current staff had remarkably similar outcomes to those reported in research studies, despite the absence of exclusionary criteria (Stuart, Treat, & Wade, 2000; Wade, Treat, & Stuart, 1998). Similar studies for a variety of disorders are either now published or in progress (e.g., Merrill, Tolbert, & Wade, 2003), and the results appear quite consistent: Treatments established in the laboratory also apply to the real world. Continued research in this area is essential.

Funding for collaborative efficacy and effectiveness research also illustrates the increasing recognition of the need to advance knowledge about the generalizability of efficacious interventions and of the importance of continual communication between research and service settings. For example, the Substance Abuse and Mental Health Services Administration (2003) has established the National Child Traumatic Stress Network specifically to develop and disseminate empirically supported interventions to ameliorate trauma-related distress and impairment in children and their families. This initiative is unique in its balance of attention to efficacy and effectiveness research. It funds two types of centers, some for treatment development and evaluation and some for treatment delivery, feedback, and adaptation. Part of the centers' funding is specifically allocated to collaboration with other centers. This collaboration ensures that all treatment development centers are in continual communication with clinical service centers and that all clinical service centers have access to research expertise and the ability to provide feedback to influence treatment adaptations and refinements. The innovative structure of this initiative should enable it to serve eventually as an invaluable example of the most useful ways to link research and practice and to disseminate empirically supported treatments directly to the front lines of patient care. Other large-scale efforts to study and implement EBP have been funded by the National Institute of Drug Abuse in its clinical trials network initiative and by various state governments (e.g., Chorpita et al., 2002).

THE SCIENTIFIC BASE FOR EVIDENCE-BASED PRACTICE IN PSYCHOLOGY

Having considered evidence for efficacy and effectiveness of psychological treatments, we turn now to specifics about these interventions that will help integrate psychology into EBP more broadly construed. EBP should not widen the divide between practice and research, nor should it seed dis-

cord among therapists of different orientations; rather, it should protect and advance psychology by putting the profession's best evidence forward and cementing the role of psychologists in emerging health care systems around the world. A number of individuals have written cogent articles in support of EBP in psychology (e.g., Beutler, 2004; Chambless & Ollendick, 2000; Weissman & Sanderson, 2002). We do not repeat these points, except when pertinent to our discussion. Our purpose is to delineate a number of important points derived from research that should facilitate the integration of psychology with EBP.

Psychological Model of Treatment Outcome

A psychological model of treatment constitutes best practice within psychology. We advocate for a psychological model of psychotherapy, which is a middle ground between the contextual and medical models (c.f. Wampold, 2001). This model not only allows for the existence of therapist effects, allegiance effects, and common factors but also underscores specific treatment effects, the importance of flexible adherence, and differential efficacy. At the same time, it advocates and allows for an interface between psychologists and their medical colleagues and health service policymakers and increases the probability that psychological treatments will be seen as relevant to health care.

One method of facilitating relationships with other health care professionals is to present evidence for the effectiveness of psychological treatments, particularly in comparison to medications. Through such evidence, psychologists can persuade their colleagues in psychiatry and psychopharmacology to support psychotherapy, making a significant impact on behavioral health care policy. Many collaborative studies including psychological and drug treatments (e.g., Davidson et al., 2004; Foa et al., 2005) have demonstrated the efficacy of psychological treatments and may lead health care delivery systems to increase training in and dissemination of these treatments. Furthermore, the collaboration of psychologists with medicine extends far beyond psychiatry: Many treatments developed in the field of health psychology have been collaborative efforts with physicians and other health care practitioners to deal with many aspects of physical illness. These studies have yielded promising results (see Smith, Kendall, & Keefe, 2002, for a review) and are likely to be integrated into the health care system.

Specific Treatments for Specific Disorders

Some specific treatments have particular efficacy for specific disorders. When well-designed psychological treatments are matched to specific forms of psychological pathology, robust effects are apparent. Although some have suggested that all treatments are equally effective (Wampold, 2001), more

fine-grained analyses suggest otherwise (e.g., Beutler, 2002; Crits-Christoph, 1997). Even those who suggest that treatments may be equally effective still support the superiority of specific treatments for anxiety disorders, health-related behavioral pathology, or other problems (e.g., Lambert & Ogles, 2004). Providing further support for the notion that specific techniques matter, Howard (1999) reported findings from a managed health care system indicating that clinicians who reported having received specialty training in cognitive-behavioral treatments had better outcomes with patients with an anxiety disorder than clinicians who reported having no such training. It is clear that more research is required to better understand such findings. Fortunately, a number of newer studies are aimed at clarifying such questions within well-controlled studies (e.g., Addis et al., 2004; Merrill et al., 2003).

From the standpoint of EBP, it is more helpful and credible to specify treatments for specific disorders than to contend that a whole range of treatments under a single rubric (e.g., "psychotherapy works") are effective for any complaint. Such a notion leaves one without guidelines regarding what strategies to use and leads to the uncomfortable and unlikely conclusion that past life regression therapy, thought field therapy, or similar approaches without evidence are as effective as interpersonal psychotherapy for depression due to common factors operative in each. In medicine, a belief that "surgery works" would not guide the surgeon to know which procedure to select for any given condition or even whether to operate. Thus, analyses need to be conducted carefully with an understanding of the underlying complexities of the disorders and the treatments. Grouped analyses across treatments and conditions that ignore these interactions are at risk of obfuscating benefits.

The Importance of Therapist Techniques

The outcomes of psychological treatments are determined by the manner in which therapists execute specific techniques. Several researchers have suggested that only 10% of treatment effects are accounted for by techniques, and that more than 50% can be accounted for by the therapist (Lambert & Barley, 2002; but see Beutler, 2004, for a lower estimate). However, the definition of *therapist effects* is complex and may include aspects of technique not well captured in many discussions of the notion of therapist effects. We maintain that the interaction of a skilled therapist with effective techniques is crucial. Depending on the disorder, some treatments may show differential benefits of techniques and therapists immediately during treatment, whereas others are more likely to show such effects in the longer term. For example, in a recent study on the relative efficacy of CBT and medications for obsessive-compulsive disorder (OCD; Foa et al., 2005), therapist effects in CBT accounted for approximately 12% of the outcomes, whereas treatment effects (compared with placebo) accounted for 60% of the outcomes (Huppert, Franklin, Foa, Simpson, & Liebowitz, 2003). For this chapter, we examined

therapist and treatment effects at posttreatment and 1 year after acute treatment for panic disorder from a large clinical trial (Barlow, Gorman, Shear, & Woods, 2000). Therapist effects remained at approximately 10% between posttreatment and follow-up, but the treatment effects rose from 10% to approximately 40% (Huppert, 2004; Huppert et al., 2001). More data are needed to identify and understand the factors that contributed to outcomes. These data certainly suggest that researchers should not be quick to dismiss the importance of techniques simply because therapist effects may be found. We use an analogy from surgery: There is documented evidence of differential surgeon effects (New York State Department of Health, 2001) and hospital effects (e.g., Birkmeyer et al., 2002). Surgeons and hospitals with higher volumes of specific types of surgery tend to have better outcomes. Of course, the right techniques need to be in the right hands before this analysis can be done. Until researchers understand the specifics of what variables (i.e., what specific therapist actions) account for therapist effects, one cannot be sure that competency using a technique or the methods used to motivate a patient to comply with treatment are not what accounts for such effects when they are found (c.f. Huppert, Barlow, Gorman, Shear, & Woods, in press).

Therapeutic Relationship: Necessary but Not Sufficient

The therapeutic alliance, empathy, expectancy, and motivation are necessary, but they are not sufficient factors in producing positive therapeutic outcomes. The data support the notion that the alliance or other common factors are related to outcomes for many disorders or treatments, but most analyses ignore the important interactions with techniques that are possible reasons for such findings. In one study (Lindsay, Crino, & Andrews, 1997), patients with OCD who received exposure and response prevention benefited significantly more from treatment than patients who received stress management training, even though the two treatments were seen by the patients as highly credible and alliance was high in both conditions. In a study of treatments for cocaine abuse, Carroll, Nich, and Rounsaville (1997) found that alliance was not correlated with outcome within structured treatments, although it was strongly related to outcome in supportive psychotherapy. Others have found that some treatment factors, such as level of emotional arousal, are most effective in facilitating change in the context of a positive alliance (Beutler, Clarkin, & Bongar, 2000). Still others have found that both techniques and alliance are related to outcome (Klein et al., 2003; Pos, Greenberg, Goldman, & Korman, 2003). In a study of CBT for generalized anxiety disorder, alliance was related to immediate outcomes, but it was unrelated to long-term outcomes, suggesting that it is important to examine the long-term impact of alliance on outcomes (Durham et al., 2005).

More important, the mechanisms producing a good alliance are not clear, despite attempts to clarify this issue (e.g., Horvath & Bedi, 2002; Lam-

bert & Ogles, 2004). Some studies have suggested that a positive alliance leads to better treatment compliance (Blackwell, 1997), which suggests that the more powerful the treatment strategies, the greater the benefit from a strong alliance. However, the reverse is also possible: The more effective the strategy, the better developed the alliance may become. For example, providing psychoeducation about the nature of panic attacks and realistic treatment expectations based on outcome data may greatly improve the therapeutic alliance because the patient now feels understood and understands some of his or her experiences better and because psychoeducation provides an excellent framework for a realistic, hopeful relationship in which the patient expects to improve. Thus, empirically supported techniques (Castonguay & Beutler, 2005) that comprise the foundation of the empirically supported treatments used in EBP (Chambless et al., 1998) are likely to positively affect empirically supported relationships (Norcross, 2002). This is the essence of evidence-based practice.

Value of Treatment Manuals

Treatment manuals can help ensure that therapists are using appropriate techniques for a given disorder. Manuals and manualized treatment are tools and guidelines for practitioners, not fixed, unalterable software programs (c.f. Sackett et al., 1996). A treatment manual (e.g., Craske, Barlow, & Meadows, 2000) is meant to serve as a tool that provides clinicians with both the basic psychological principles that will help most patients with a specific problem and a combination of techniques that are proved to accomplish these principles. There are, of course, times that these techniques do not work and that the treatment plans need to be adjusted (e.g., Huppert & Baker-Morissette, 2003). In this regard, manualized psychological treatments can be viewed as similar to surgery (i.e., therapist as surgeon and treatment as tools for surgery). It is understood that no one can simply read a manual in any of these areas and apply the treatment proficiently or with expertise; furthermore, clinicians must be able to deal expertly with complications that may arise. Training, supervision, and practice are all necessary. There are a growing number of published efforts encouraging therapists to learn how to use manuals appropriately, with flexibility and sensitivity, while still adhering to the general psychological principles appropriate for the condition under treatment (see Huppert & Abramowitz, 2003).

IMPROVING RESEARCH IN PSYCHOLOGY TO ADVANCE EVIDENCE-BASED PSYCHOTHERAPY

To inform the continuing discussion regarding the best way to conceptualize and improve EBP, we have identified five issues that may allow for

better integration of psychological research into EBP and that should thereby improve quality of care. The paragraphs that follow outline these issues.

First, process research should be incorporated into clinical trials. In pursuit of the best evidence for the efficacy of psychological treatments and to retain the credibility of the psychology profession in developing health care policy, well-controlled randomized controlled trials (RCTs) are necessary, but they may not be sufficient to elucidate mechanisms of action. A significant amount of process research has been conducted from the National Institute of Mental Health Treatment for Depression Collaborative Research Project (TDCRP; a PsycLIT search of articles from 1987–2004 yielded 73 articles and dissertations involving the study), and other studies are beginning to report important process results (e.g., Arnow et al., 2003; Klein et al., 2003; Nemeroff et al., 2003). However, clinical trials should include measures of both common factors and specific techniques so that researchers can examine not only which treatment works but also why and for whom.

Second, treatment manuals should include a caveat about the need for expert supervision to maximize the benefits of their use. All manualized treatments from a variety of theoretical persuasions were developed by expert clinicians who put great effort into documenting what they believed were the core principles and efficacious techniques of their treatments (e.g., Clarkin, Yeomans, & Kernberg, 1999; Linehan, 1993). However, these treatments still require supervision. Under expert supervision, therapists learn to incorporate aspects of the treatment that are not articulated in the manual (e.g., Huppert & Abramowitz, 2003). This transmission of unwritten knowledge is similar to what happens in the training of physician specialists through their residencies or beginning psychology students in their clinical practica. Fortunately, a number of manuals already published or currently in progress attempt to clarify this unwritten knowledge (e.g., Segal, Williams, & Teasdale, 2002).

Third, practice research networks should be established to further evaluate techniques and disseminate them in clinical practice while informing future research directions (Borkovec, 2004; Borkovec, Echemendia, Ragusea, & Ruiz, 2001). Some have suggested that rather than developing a new generation of treatments and manuals from the laboratory, researchers should shift their focus to discerning what works in real-world practice (Westen, Novotny, & Thompson-Brenner, 2004). It would definitely be interesting to see the fruits of such an endeavor. At the same time, significant progress has been made using the incremental scientific paradigm, in which treatments evaluated in well-controlled RCTs to establish efficacy are then tested in real-world clinical settings and appropriate modifications made. Of course, many interventions ultimately tested in RCTs originated in practice settings, so it is something of a two-way street already (c.f. Clark, 2004). Nevertheless, several notable recent studies have suggested that usual and typical treatments in the real world (treatment as usual) are not as effective as those

conducted in research settings (Bickman, Noser, & Summerfelt, 1999; Hansen, Lambert, & Forman, 2002; Weisz, 2004).

Psychological treatments will best be advanced by a combination of information integration from psychological science (c.f. Bouton, Mineka, & Barlow, 2001; Foa & Kozak, 1997) and systematic study of techniques based on theory and science (Clark, 2004). Of course, knowledge gained from clinical practice should be fully integrated into treatment development at every stage, with practitioners as full partners in the process (Hollon et al., 2002), and studying outcomes in the real world after training can provide important results. It is fortunate that organized systems are arising to facilitate communication and interconnection between research facilities and clinical service settings. Practice research networks such as the Pennsylvania Practice Research Network are developing in an effort to create organized infrastructures for effectiveness research collaboration between researchers and practitioners (Borkovec et al., 2001), and government research initiatives are also promoting such efforts.

Fourth, improvements are needed in the design and reporting of clinical trials. Westen et al. (2004) suggested that improving the reporting of clinical trials in psychology is necessary to determine whether findings are generalizable to clinical practice. One would be hard-pressed to find a dissenter to that opinion. A recent study showed that most patients in community health centers would in fact meet criteria for at least one clinical trial (Stirman, DeRubeis, Crits-Cristoph, & Brody, 2003). Many patients are reasonably excluded because their disorders are not the primary focus of the study or sufficiently severe. Although there have been recent calls to include more suicidal patients in protocols (Hollon et al., 2002; Westen et al., 2004), such steps should be taken with extreme care so as not to increase the risk of harm for a patient in a trial.

In the meantime, promising results have been reported from case series and other studies on the generalizability of empirically supported treatments to excluded populations, such as those with comorbid alcohol abuse and panic disorders (Lehman, Brown, & Barlow, 1998) or schizophrenia and social anxiety (Halperin, Nathan, Drummond, & Castle, 2000). Furthermore, there are large bodies of research on a number of treatments that have been applied to multiple real-world settings (e.g., Program of Assertive Community Treatment [PACT]; Stein & Santos, 1998) for individuals with severe mental illness (Bond, Drake, Mueser, & Latimer, 2001; Gold et al., 2003). Overall, most data support the generalizability of these treatments into clinical practice (see Shadish, Matt, Navarro, & Phillips, 2000; see <http://www.psych.upenn.edu/~dchamb/ESTs/effect2.html>).

It is important to report clinical trials according to Consolidated Standards of Reporting Trials (CONSORT) guidelines (Moher, Schultz, & Altman, 2001), which stipulate the kinds of data from randomized clinical trials that should be reported. Westen et al. (2004) recently called for a simi-

lar guideline, perhaps with additional information such as completer response and dropout analyses, to account for all patients from study inception through follow-up. In addition to learning about patient selection for the studies, one may also learn important additional information about the treatment-seeking samples (e.g., Huppert, Franklin, Foa, & Davidson, 2003). However, it is an overstatement to suggest that because studies have not had 5-year follow-ups and reported on every patient excluded from the study, their results cannot guide practice (Westen et al., 2004), because results thus far suggest otherwise (see the section on Clinical Effectiveness of Psychology, this chapter).

Finally, attention must be paid to the use of proper control groups. Researchers should compare study treatments with those in widespread use in practice (Wampold, 2001; Westen et al., 2004). We wholeheartedly agree that ideal studies should include expert therapists performing both the treatment under evaluation and the “control treatment,” which should be treatment as usual in the community. It is essential that collaborative efforts such as those with psychiatry be undertaken with practitioners of psychodynamic, experiential, and eclectic treatments in the community to avoid any confounding allegiance effects accounting for differences that may occur (c.f. Luborsky et al., 1999), which has begun to happen (see Clarkin, Levy, Lenzenweger, & Kernberg, 2004; Crits-Christoph et al., 1999; Weersing & Weisz, 2002). Unfortunately, the dearth of non-CBT researchers and the difficulty in obtaining funding for such studies make this endeavor more difficult.

CONCLUSION

Governments and health care policymakers around the world have evaluated the evidence for the psychological treatment of various physical and psychological pathologies and have accepted this evidence as sufficient to include these procedures in a variety of officially authorized clinical treatment guidelines. Although the data have at times been misused by managed care organizations to limit reimbursement for continued treatment and also can lead to a clinician applying treatment manuals without considering the individual needs of the specific patient, such issues are against the principles of EBP in psychology as we see them. We have suggested in this chapter that emerging psychological treatments with proved efficacy are made up of an integral relationship between therapist skill and technique in the context of treating a specific disorder (or vulnerabilities for a disorder) and that these two factors cannot be usefully separated. Although much additional evidence needs to be developed, particularly focusing on the clinical utility or generalizability of these procedures to frontline clinical settings, many government agencies are invested in promoting this research. Fortunately, the results thus far are very encouraging, although researchers have a very long

way to go to fully understand this process. It is also clear that a full elucidation of clinical utility or effectiveness will depend on a close working relationship between clinical scientists developing these techniques and practitioners using them in the community. An iterative process is required whereby newly developed techniques are beta tested in the community with a resulting process of feedback and refinement that will lead to either the establishment of the procedures as useful in frontline practice settings or the abandonment of the procedures as not feasible. In this way, practitioners will become full partners in the research process (Barlow, Hayes, & Nelson, 1984; Hayes et al., 1999). The beginnings of this type of effort are found in practice research networks such as that established by the Pennsylvania Psychological Association (Borkovec et al., 2001). Indeed, perhaps it is time for the APA to establish its own nationwide practice research network.

Although health care systems in the United States are more disorganized than in a number of other nations, it seems clear to many observers (e.g., Richmond & Fien, 2003) that this country will ultimately move toward a more unified and perhaps even a single-payer system of health care. With the further development of evidence-based psychological treatments, the psychology profession will be poised to take advantage of these advances and to play a major role in the nation's health and well-being.

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