

PART I

Overview and Foundational Issues

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Evidence-Based Practice in Adult Mental Health

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INTRODUCTION

There is widespread and growing awareness that behavioral and mental health care, like other sectors of health care, require rigorous practice standards and professional accountability (Institute of Medicine, 2001; Kazdin, 2008; President's New Freedom Commission on Mental Health, 2003). Evidence-based practice (EBP) and empirically supported treatments are a critical element of these standards for both child and adult populations (APA, 2006; Barlow, 2000; Spring 2007; Spring et al., 2008; Torrey et al., 2001; Weisz, Hawley, Pilkonis, Woody, & Follette, 2000). Unfortunately, interventions used in clinical, behavioral, and mental health practice settings are often not carefully based on empirical evidence, resulting in a discrepancy between research and practice (Cook, Schnurr, & Foa, 2004; P. W. Corrigan, Steiner, McCracken, Blaser, & Barr, 2001; Ferrell, 2009; Frueh, Cusack, Grubaugh, Sauvageot, & Wells, 2006; Gray, Elhai, & Schmidt, 2007;

Henggeler, Sheidow, Cunningham, Donohue, & Ford, 2008; Kazdin, 2008; Schoenwald & Hoagwood, 2001; Stewart & Chambless, 2007). In this chapter we provide an overview of EBP in adult mental health, including definitions, purpose, processes, and challenges.

DEFINING EVIDENCE-BASED PRACTICE

Evidence-based practice is an empirically based approach to identify and appraise the best available scientific data in order to guide the implementation of assessment and intervention practices. This entails making decisions about how to integrate scientific evidence with clinical practice, taking account of relevant practice setting, population, provider, and other contextual characteristics. Exact definitions of what constitutes an EBP have been proposed. Some have suggested that designation of an intervention as an EBP requires favorable empirical support from at least two randomized controlled trials (RCTs) conducted by independent researchers/labs (Chambless & Hollon, 1998), or seven to nine smaller experimental design studies each with at least three subjects conducted by at least two independent researchers (Chambless & Hollon, 1998; Lonigan, Elbert, & Johnson, 1998). These

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requirements were proposed in order to define specific treatment models as empirically supported treatments (ESTs). The ESTs are a subcategory of EBT that focuses on specific (usually manualized) treatment models for which substantial scientific evidence of efficacy or effectiveness has been accrued.

Others have proposed the value of expert consensus panels, meta-analyses, and/or Cochrane database reviews to overcome the potential biases of individual or critical reviews (Spring et al., 2008). Further, governments and health insurance companies have developed detailed EBP guidelines for specific psychiatric disorders, such as the UK's National Institute for Clinical Health and Excellence (NICE, 2005) and the United States' Institute of Medicine and National Research Council (IOM, 2007) guidelines for treating posttraumatic stress disorder (PTSD), in order to guide (or mandate) efficacious mental health-care practices.

EBP does not necessarily imply the designation of certain treatment models as "evidence based." An alternative way to conceptualize EBP is to place less emphasis on specific intervention protocols (e.g., manualized treatment models) and focus instead on empirically supported general content-domain practice elements (Chorpita, Daleiden, & Weisz, 2005; Rosen & Davison, 2003). For example, practice elements might include the development of a therapeutic working alliance and enhancing client motivation, teaching of skills for coping with symptoms, or facilitation of therapeutic processing of distressing emotions.

In addition, research evidence is not necessarily the only base for determining what constitutes EBP. The American Psychological Association Presidential Task Force on Evidence-Based Practice (2006) explicitly proposed requiring evidence from clinicians' real-world observations and from client values and preferences in addition to research evidence as a basis for establishing EBP. These added requirements reflect an attempt to ensure that EBP is not only likely to produce quantifiable

outcomes (based on the results of scientific research), but will also have utility for clinicians (First et al., 2003) and will be acceptable to and respectful of the recipients of the services. Regardless of the specific evidentiary requirements that are defined as necessary to establish a mental or behavioral health practice as evidence-based, EBP must be defined in terms of behaviorally specific practices that can be readily and reliably taught to and followed by clinicians. Both treatment models and trans-theoretical practice elements involve competencies that must be operationalized and replicable. Practitioner competencies for EBP fall into four broad areas, including: (1) assessment skills, (2) process skills (i.e., enhancing client motivation and the clinician-client working alliance), (3) communication skills for collaborative decision making, and (4) intervention skills (Spring et al., 2008).

Two other important concepts related to EBP require definition. *Dissemination* is the targeted distribution of synthesized scientific evidence and materials related to an intervention, practice, or clinical population to relevant key stakeholders (e.g., health-care administrators, clinicians, patients). *Implementation* is the use of specific strategies to ensure the successful adoption of disseminated EBPs and integration into practice patterns within clinical settings.

PURPOSE

The EBP in mental health care is important for several reasons. It allows for a shared vocabulary and conceptual framework to facilitate transdisciplinary research and high-quality practice in mental health care, providing a framework and process to ensure accountability and reduce the research-practice gap for the sake of the public health (IOM, 2001; Kazdin, 2008). Additionally, the conceptual framework provided by EBP allows for improved communication among professionals and disciplines, thus facilitating the dissemination and implementation of the very best available clinical practices with sufficient fidelity to ensure high-quality services.

THE PROCESS OF EVIDENCE-BASED PRACTICE

Because EBP is multifaceted and constantly evolving as empirical knowledge is accumulated, it requires an ongoing process. This process, a central tenet of EBP, involves several steps (as outlined by Spring 2007 and Spring et al., 2008).

1. *Ask patient-centered questions relevant at the individual, community, or population level.* For example, questions that have informed the development of EBP include: (a) Who are the patients who do *not* respond favorably to the best available treatments (e.g., those with Axis II personality disorders or more chronic symptoms), and how can adaptations of these treatments or alternative new treatments effectively address the barriers or problems that have limited these patients' ability to benefit? (b) What are the core symptoms or features of each disorder that must be addressed therapeutically in order to produce clinically significant change, and how can treatment be structured to directly address those symptoms or features? (c) What modifications in treatment models or practices can increase the pace at which change occurs, in order to relieve patients' suffering and increase their functioning in the most timely and least costly manner?

2. *Identify and acquire the best available empirical evidence to address relevant questions.* As noted earlier, the evidence should include the results of scientifically rigorous research, observations of how clinicians actually deliver services, and preferences expressed by patients that are relevant to effectively engaging and motivating them in treatment.

3. *Appraise the evidence critically* (see next section) in order to make appropriate implementation decisions.

4. *Apply the evidence in practice*, taking into account relevant factors such as limitations in the evidence base, clinical context,

patient values and preferences, and available resources.

5. *Assess outcomes*, adjust in an iterative (and ongoing) manner, and disseminate when appropriate.

EVIDENCE APPRAISAL IN EVIDENCE-BASED PRACTICE

In order to make the most effective practice decisions, the best available empirical evidence must not only be identified and acquired, but also critically appraised and integrated. Relevant data can take many forms, including single case, time series, or open trials; randomized clinical trials; meta-analyses; consensus panels or agency guidelines.

Single case, time series, open trials: Smaller, nonrandomized treatment studies are typically an important early step in the development and evaluation of new interventions or applications of established interventions to new populations or via novel service delivery modes. Such studies can provide important information about intervention feasibility, acceptance of the intervention by patients and providers, and potential for efficacy. Alone, however, these trials rarely provide sufficient evidence to support an intervention as an EBP.

Randomized clinical trials (RCTs): Larger, randomized trials that are designed to carefully control for alternative factors that may account for what appear to be the outcomes of a treatment are usually the "gold standard" required for acknowledging an intervention as an EBP. There are a number of key elements to consider when evaluating the quality and applicability of an RCT (Borkovec & Castonguay, 1998; Chambless & Hollon, 1998). These include: (1) study design, (2) methods and measures, (3) sample characteristics and size, (4) clinician characteristics, (5) dependent variable considerations, (6) data analyses, (7) results and effect sizes (statistical and clinical significance), and (8) potential side effects and adverse events outcomes and considerations. See also the

Consolidated Standards of Reporting Trials (CONSORT) statement, which was developed to improve the quality of reports of RCTs (Begg et al., 1996; CONSORT, 2009).

Clinical trials are often classified according to their phase (I to IV; NIH Guidelines, 2009) based on a system originally developed for medical outcome studies. A Phase I clinical trial involves testing a treatment model or practice with a relatively small number of recipients (in pharmacotherapy research this tends to range between 20 and 80) who are assessed before and after (and often during) the treatment in order to establish whether the treatment is safe and associated with sufficient benefits to warrant further testing. Phase I clinical trials may also test different variations of the treatment, such as fewer or more sessions (comparable to the dose of a medicine), and the mechanisms by which the treatment achieves outcomes (comparable to testing how a medicine is metabolized and affects the body). Phase II clinical trials test the efficacy of a treatment by rigorously comparing its outcomes versus those of usual clinical care or relatively innocuous alternative conditions that control for alternative possible sources of improvement (comparable to a placebo in medical research). Phase III clinical trials test the effectiveness of a treatment by administering it to much larger numbers of recipients (several hundred to thousands) in real-world circumstances that may include a comparison with the best available alternative treatment(s), careful monitoring of side effects, and follow-up assessments to determine if the benefits are sustained over time. Finally, Phase IV trials typically constitute postmarketing studies that are geared toward gathering more specific information about the risks, benefits, and optimal use of the intervention.

Critical reviews, meta-analyses, consensus panels, and agency guidelines: Reviews of empirical knowledge base can take a variety of forms, which can include objective efforts to quantifiably summarize and synthesize a large number of RCTs (e.g., meta-analyses).

Literature reviews can also help summarize what types of studies have been conducted and organize evidence to address a range of potentially important questions that extend beyond those addressed by a single RCT. These include questions regarding short- and long-term efficacy, efficacy for specific subgroups, effectiveness in practice settings, and comparisons across multiple interventions, limitations, and future directions for research and development.

Efficacy and effectiveness: Two conceptual forms of research studies represent two broad methods for evaluating outcomes, with efficacy study designs emphasizing internal validity (i.e., whether the intervention works in a controlled research setting) and effectiveness studies emphasizing external validity (whether the intervention works in real-world practice settings; Frueh, Monnier, Elhai, Grubaugh, & Knapp, 2004; Seligman, 1996). An RCT is a type of efficacy study that includes the use of manualized protocols with a fixed number of sessions and random assignment to different conditions. Although important for drawing inferences about causality, an inherent limitation of most RCTs is that they tend to emphasize laboratory rigor over real-world implementation. That is, RCTs generally include lengthy assessments that may or may not be practical in other settings, or they rely on interventions that may not easily translate to other settings due to varying provider and patient characteristics. Most RCTs to date have excluded patients with the most severe forms of the disorder being targeted, those with comorbid diagnoses, and those generally considered fragile or vulnerable. Additionally, most RCTs do not adequately represent ethnoracial minorities. These issues have raised questions among clinicians regarding the effectiveness of these interventions for the patients seen in their practice settings, many of whom have these characteristics.

Keeping up with the literature: Because scientific knowledge is constantly accumulating, EBP requires a continuous quality

improvement perspective (IOM, 2001). New treatments or practices are under development constantly in the mental and behavioral health field, with research supporting their efficacy and effectiveness often emerging quite rapidly (despite the fact that clinical trials usually require several years to complete each phase). For example, only two medication treatments (sertraline, paroxetine) are considered sufficiently safe, efficacious, and effective for adults with PTSD to warrant approval by the U.S. Food and Drug Administration (which establishes federal guidelines for EBP for all pharmaceutical treatments), despite over 30 years of vigorous clinical trials since that diagnosis was formally recognized by the American Psychiatric Association in 1980 in the *Diagnostic and Statistical Manual* (3rd revision)—and no medication has been FDA approved for the treatment of PTSD with children. However, between 2000 and 2002 a series of Phase I clinical trials were reported suggesting that an antihypertensive medication (Prazosin) was associated with reduced nightmares in PTSD, and from 2003 to 2008 several large Phase II clinical trials confirmed the efficacy of Prazosin for PTSD nightmares and for some of the core daytime symptoms of PTSD as well (Raskind et al., 2007; F. Taylor et al., 2006; H. Taylor et al., 2008).

CULTURAL COMPETENCE IN EBP

Evidence-based practice by its very definition requires respect for diversity and knowledge about the limitations of EBPs as they pertain to various groups (Spring et al., 2008; Whaley & Davis, 2007). Because ethnoracial minorities are often not well represented in RCTs, concerns have been raised about the validity of EBPs for ethnoracial minorities and whether EBP standards are even relevant for many underserved/understudied groups. Certainly, more research needs to be conducted with such groups in a variety of practice settings, with a focus on effectiveness research. However, it is

not realistic to conduct efficacy or effectiveness trials for every possible configuration of intervention, comorbid condition, practice setting, and ethnoracial or socioeconomic status group. This alone is not reason enough to dismiss using theoretically sound and empirically supported interventions. Rather, it is important to follow the EBP process outlined earlier, reviewing, synthesizing, and adapting the best available empirical data to make contextualized practice decisions that take into account limitations of the existing knowledge base. In fact, the perspectives of cultural competence and EBP are complementary to each other in that they each emphasize the importance of thoughtfully adapting interventions from RCTs for use with specific populations and clinical contexts (Whaley & Davis, 2007). In this regard, extant empirical data can be used to tailor and refine interventions as needed to ensure that they are sensitive to and appropriate for specific clinical populations.

CHALLENGES TO DISSEMINATION AND IMPLEMENTATION OF EBP IN PRACTICE SETTINGS

Empirical evidence limitations: A major barrier to dissemination and implementation of EBP for many adult psychiatric disorders is that the empirical literature base remains undeveloped, especially with regard to co-occurring disorders and among underserved/understudied populations. We know very little about the efficacy of established interventions for patients with multiple psychiatric diagnoses, or with regard to the optimal timing of treating one disorder versus another among those with dual diagnoses. That is, for example, a clinician may rightly be hesitant to use a specific EBP intervention that has been shown in clinical trials to have efficacy for depressed patients with the clinicians' depressed and anxious patient, since it may be unclear how well the EBP's treatment effects

generalize to patients with anxiety comorbidity. Also, the clinician working in an independent practice may be leery of adopting an EBP that proved efficacious in an academic medical center's RCT (since RCTs often have strict eligibility and exclusion criteria, as well as tending to provide treatments in a time-limited format that often is not sufficient to fully address complicated clinical problems). However, evidence actually suggests that private practice and community setting patients show comparable gains to those published in academic medical centers' RCTs despite RCT's strict inclusion criteria. And, evidence suggests that diagnostic complexity does not appear to substantially alter the effectiveness of EBPs tested on only a single disorder. Collaboration between researchers and clinicians has resulted in innovative adaptations of ESTs designed to enhance their applicability to clinicians and patients in real-world settings (e.g., Cook et al., 2004; Fava et al., 2006; Kazdin, 2001; Stroup et al., 2006).

Barriers to dissemination and implementation of EBP in practice settings: There is little evidence that EBPs are yet effectively disseminated or implemented in the vast majority of real-world practice settings, or that EBPs are implemented in ways that are likely to support wider dissemination efforts (Drake et al., 2001; Gold, Glynn, & Mueser, 2006; Mueser, Torrey, Lynde, Singer, & Drake, 2003; Shumway & Sentell, 2004). The literature on effective dissemination practices emphasizes the need to provide clinicians the training, tools, and ongoing supervision to deliver empirically validated treatments (P. W. Corrigan, Steiner, McCracken, Blaser, & Barr, 2001; Friedberg, Gorman, & Beidel 2009; Henggeler et al., 2008; Torrey et al., 2001). Although necessary, however, these strategies are recognized as insufficient to overcome clinical and administrative barriers to the implementation and maintenance of EBPs in most practice settings, public and private. These barriers generally include a lack of motivation and resistance to change by providers, lack of skills and inadequate training among

providers, limited resources and incentives for providers, deficient incentives for providers and administrators, cost concerns regarding implementation and maintenance, lack of ongoing quality assurance or fidelity monitoring, limited involvement and commitment from key stakeholders, diffuse leadership, and insufficient accountability at multiple organizational levels (Addis & Waltz, 2002; P. W. Corrigan et al., 2001; P. Corrigan, McCracken, & Blaser, 2003; Drake et al., 2001; Frueh et al., 2009; Ganju, 2003; Mueser et al., 2003; Schoenwald & Henggeler, 2003; Schoenwald & Hoagwood, 2001; Torrey et al., 2001).

Practitioner beliefs and resistance: Practitioner beliefs about and resistance to EBP is a major concern. Clinicians often have concerns regarding the effectiveness of EBPs, including a possible compromised therapeutic relationship when using potentially "sterile" treatment manuals, when individual patient needs are not met, when treatment credibility is undermined by a formulaic lockstep approach, when there is contraindication in the most typical patients (e.g., those with comorbid conditions, ethnic-racial minorities; see the aforementioned), when clinical innovation is hampered, and the belief that service innovations may reflect the interests and needs of administrators or payers of services rather than patients (Addis, 2002; Barlow, Levitt, & Bufka, 1999; Frueh, Cusack, Grubaugh, Sauvageot, & Wells, 2006; Gold et al., 2006; Hoagwood, Burns, Kiser, Ringeisen, & Schoenwald, 2001). Additionally, even with positive attitudes toward EBP, logistical challenges frequently hamper implementation efforts. These include difficulty in learning new skills, lack of infrastructure to provide clinicians with training, ongoing supervision and feedback (i.e., maintain fidelity of implementation), and lack of researcher-clinician partnerships (Cook et al., 2004; P. W. Corrigan et al., 2001; Schoenwald et al., 2003; Sullivan et al., 2005; Torrey et al., 2001). In fact, a survey of practicing psychologists demonstrates that fewer than half have a clear idea of treatment manuals, most mistakenly

believing that they are cookbook approaches imposed by insurers (Addis & Krasnow, 2000).

Practitioner implementation: Even when practitioner beliefs and expectations regarding EBP are positive, this does not necessarily translate into actual or effective implementation. Studies evaluating attitudes toward and use of EBP among mental health professionals show that although only a minority of participants report negative views of EBPs, favorable EBP attitudes are not strongly correlated with reported clinical behaviors (e.g., Gray, Elhai, & Schmidt, 2007). Even respondents who tend to rely on treatments that are not empirically based report positive opinions about EBPs, suggesting that practitioners may hold widely varying evidentiary standards (Frueh et al., 2006).

Limited practice accountability at provider, facility, and system levels: Unfortunately, practice accountability, treatment quality, and outcomes are not systematically linked at all levels in most mental health clinics and systems (Gold et al., 2006). Performance standards usually focus on counting the number of patients treated (e.g., “billable hours”), general procedure categories administered, and medical record keeping tasks (e.g., progress notes completed). While these administrative criteria are important in terms of documenting that work is being accomplished, they do not ensure (and may actually shift the clinician’s attention away from) the delivery of quality care and the attainment of meaningful benefits by patients. Some health-care programs and systems (such as the U.S. Veterans Affairs health-care system) also include measurement of patient attendance and drop out, scheduling of follow-up appointments, and referrals, all of which are meaningful variables. However, mental health systems rarely monitor actual clinical outcomes at the individual patient or aggregate level, improvements in social and occupational functioning, or specific details of clinical practice behaviors (e.g., treatment fidelity monitoring) to ascertain whether EBP is used at all or used appropriately. Thus, frontline clinicians, facility directors, and system administrators are rarely

held accountable for using EBP. Without such accountability, large-scale adoption of EBP is unlikely to develop fully.

STRATEGIES FOR DISSEMINATION AND IMPLEMENTATION OF EBP IN PRACTICE SETTINGS

To effectively disseminate EBP in real-world practice settings, a multipronged effort targeted at every level of the organization (provider, facility, and system) is needed. Proposed strategies (Frueh et al., 2009) for overcoming such identified challenges are: set clear goals; nurture broad-based organizational commitment and key stakeholder involvement; implement specialty training efforts to provide information and change attitudes; provide ongoing technical assistance and clinical supervision; conduct fidelity and competence monitoring; and ensure accountability to the extent possible.

1. Set clear goals: It is important to set goals that are clear, specific, and realistic—and to then communicate these goals effectively to relevant change agents and key stakeholders. Goals should be objectively measurable so that progress in relevant domains can be empirically tracked, and goals can be revised accordingly. For example, a dissemination and implementation goal might be to train a cohort of clinicians to deliver an EST with 90% fidelity (or greater) to the model based on independent quality assurance review of videotaped treatment sessions, and to sustain this level of fidelity through weekly consultation meetings in which tapes are reviewed by the clinicians and expert supervisors. An outcomes goal might be to enable patients to reduce the severity of the symptoms of their primary disorder(s) to within the subclinical or nonclinical range when a sufficient “dose” (e.g., length of treatment or number of sessions) of the EST has been received.

2. Nurture broad-based organizational commitment and key stakeholder involvement:

Successful dissemination and implementation of any new program within most large mental health agencies and practice settings requires broad-based organizational commitment, including representation and “buy-in” from the full range of key stakeholders, including patients (whose voices can be powerful and persuasive) (Cusack, Wells, Grubaugh, Hiers, & Frueh, 2007; Frueh et al., 2009; Gold et al., 2006). While administrators, clinicians, and other stakeholders are committed to improving patient outcomes, they must be convinced that proposed assessment procedures and interventions can do so cost effectively. After obtaining stakeholder buy-in, empirical data should guide decisions regarding how services will be implemented. These decisions should be flexible to ensure practices are appropriate and sensitive to the needs of both patients and providers within a particular facility. Similar to a bottom-up approach, provider feedback and concerns regarding the intervention should be solicited and appropriately addressed. Importantly, it has been proposed that making treatment manuals more user friendly and obtaining clinician input and refining treatment procedures to address high priority challenges (e.g., preventing and managing psychiatric crises; engaging and achieving progress with refractory patients) is key. Such feedback could alter aspects of the intervention but will ultimately increase the likelihood that the intervention will be successful by promoting a sense of ownership and collaboration among providers (Sullivan et al., 2005).

3. Incorporate specialized training efforts to provide information and change attitudes: Specialized training is necessary to help clinicians make the leap from learning new practices or treatments to actually incorporating the skills and knowledge into their clinical repertoire. Refresher training also is important to enable clinicians to keep up with refinements in the EBP as well as broader advances in their field, and to identify and address knowledge deficits. Available empirical data can be used to

persuade stakeholders to accept the need for developing or changing clinical practices, and to provide direction on how those practices might be structured. For example, introducing specific measures or treatment manuals that are relatively user friendly and providing resources and instruction on their use can be extremely helpful to well-intentioned clinicians who want to change their practice but are unsure of where to begin. It is also important to include relevant instructional approaches that are tailored to specific audiences. Further, the use of multi-channel approaches (e.g., video, Web-based, behavioral role plays) to clarify and reinforce key points is important to facilitate and consolidate learning. In combination, these training efforts can help to increase knowledge, expand skill sets, and dispel inaccurate practitioner beliefs.

4. Provide ongoing supervision and peer review: It is not sufficient to merely provide education and training to clinicians (Henggeler et al., 2008). The dissemination and implementation literatures suggest that single or compressed training sessions in practice settings seldom result in meaningful or lasting changes. Ongoing clinical supervision is an essential component of effective dissemination and implementation efforts, providing clinicians with role modeling and guidance by experts and assistance in competently adapting the EBP or EST to their setting and patients while maintaining fidelity to the model or practices (P. W. Corrigan, Steiner, McCracken, Blaser, & Barr, 2001; Torrey et al., 2001). Obstacles in training and supervision of EBPs have hampered real-world implementation in practice settings, requiring special attention and innovative models of dissemination (Friedberg, Gorman, & Beidel, 2009; Sudak, 2009).

5. Conduct fidelity monitoring: It is well-recognized that fidelity monitoring is essential to ensure effective long-term implementation of EBP (Backer, Liberman, & Kuehnel, 1986; McGrew, Bond, Dietzen, & Salyers, 1994). Without such monitoring, protocol deviations inevitably occur, including the introduction of

theoretically incompatible, unsupported, or inert treatment strategies. For example, we found that clinicians being trained in the use of cognitive-behavioral treatment for PTSD were often tempted to fall back on old habits (e.g., avoiding discussion of trauma exposure details or PTSD symptoms) or to use elements of other incompatible interventions (Frueh et al., 2009). Fidelity efforts will be most effective if they are relatively quick, user friendly, and cost efficient (Schoenwald & Henggeler, 2003). Strategies include checklists to ensure session content areas are covered, peer review, and formal supervision in group or individual format. Optimally, actual observation of delivery of treatment by the supervisor (e.g., behind a one-way window) and the clinician (e.g., reviewing videotapes of treatment sessions) provides real-time samples of the patient-clinician interaction that can be discussed in terms of the clinician's successes in adhering to EBP as well as deviations that are opportunities for reexamining the purpose and benefits of the EBP and recommitting to it.

6. Ensure accountability to the extent possible: The final, and perhaps most difficult to incorporate, component of dissemination and implementation is accountability at all levels of the organization. Once an organization has made the decision to change, has implemented new procedures and services, and clinicians are trained and prepared to implement EBP, accountability is necessary. This requires: (a) ongoing assessment of protocol adherence (e.g., fidelity monitoring) and clinical outcomes, which can be used to help ensure accountability; and (b) ongoing training and supervision to maintain currency with EBP. Strategies must also be developed to incorporate goal-obtainment accountability at provider, facility, and system levels. This should include both incentives for success and feedback, guidance, and ultimately consequences if goals are not met. This may be the most difficult challenge to surmount in most practice settings, and requires committed and creative leadership.

CONCLUSIONS

Widespread dissemination and implementation of EBP, including the conceptual framework and processes this entails, is critical to improving mental and behavioral health patient outcomes, yet is widely lacking in practice settings (Kazdin, 2008). Many clinicians still do not know that their jobs can be made easier and the benefits their patients accrue can be increased by incorporating EBP into their practice. Although EBP requires fidelity to a model of assessment and treatment and the tools for implementation (e.g., validated interview or questionnaire measures, replicable treatment strategies), the reality of clinical practice is that clinicians are using their own idiosyncratic implicit practice models. Utilizing EBP simply makes this explicit and open to thoughtful innovation, as opposed to the less desirable alternative of sporadic changes in practice or unquestioning adherence to practice as usual.

Thus, it is time that practitioners and mental health-care systems align their clinical services with the best available empirical data. Ultimately, each clinician will choose her or his own practice model, but with an explicit EBP or set of ESTs the array of choices is enlarged and each choice about assessment or treatment strategy can be made on a more fully informed basis. It is essential that EBPs are defined, researched, taught, and supervised in a manner that facilitates rather than artificially constricts the clinician's ability to adapt practices to best suit the setting and each unique patient or cohort of patients. Schoenwald and Hoagwood (2001) noted the "process of moving efficacious treatments to usual-care settings is complex and may require adaptations of treatments, settings, and service systems" (p. 1196). Accordingly, we have outlined a number of challenges to implementing EBP in clinical settings and suggested strategies for overcoming these challenges. These strategies include efforts at every level of the organization: clinician, facility, and system.

A great deal of change is still needed with regard to research and practice efforts. There is need to (a) enhance the empirical database on EBP for virtually all psychiatric disorders, especially with regard to comorbid conditions and understudied populations (e.g., ethnoracial minorities); (b) conduct and systematically evaluate related dissemination and implementation strategies and outcomes; (c) expand the empirical database on EBPs, as well as dissemination and implementation efforts for interventions in highly vulnerable populations (e.g., prisoners, veterans, low-income females, children, persons with substance abuse disorders); (d) examine and initiate widespread change efforts related to mental health practices in public-sector agencies; and (e) incorporate changes to graduate and medical training curricula to reflect the advances in EBP for adult psychopathology.

While this chapter has focused on the challenges and opportunities presented by the translation of scientific and clinical innovation into clinical practice, the true starting point for the widespread adoption of an EBP perspective to mental and behavioral health services is teaching EBP as a fundamental clinical practice framework in pregraduate and graduate education programs. When EBP is the rule and not the exception in clinical training across the mental and behavioral health professions, the dissemination and implementation of EBP in practice settings will be much closer to being the accepted and welcomed norm rather than a controversial externally imposed requirement. Precisely what EBP means in each setting and for each clinician will continue to be adaptable based on the best judgment of the clinician and the best interests of the patient, and as a result of utilizing an EBP framework those judgments and interests will be explicit and open to empirically guided enhancement. Considered in that light, EBPs provide a win-win opportunity for clinical innovation, if taught and applied in the spirit of humanistic empiricism that is their true foundation.

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