Methods for Disseminating Research Products and Increasing Evidence-Based Practice: Promises, Obstacles, and Future Directions

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Although several different rationales for psychotherapy dissemination research have been well articulated, the most effective means for bringing research products to clinical practice have yet to be determined. Two commonly proposed methods are the dissemination of empirically supported treatments and the dissemination of general evidence-based stances to clinical decision making. Obstacles to either approach include (a) practical constraints on practitioners' ability to use research products, (b) lack of research on process and outcome of both empirically supported treatments and existing services in different practice contexts, (c) lack of research on acceptability of research products to end users including practitioners, clients, and administrators, (d) lack of research on training in the integration of science and practice at the undergraduate, graduate, and postgraduate levels, (e) systemic economic contingencies that favor or punish evidence-based decision making, and (f) the tendency to construct dissemination as a hierarchical and unidirectional process of transmission from research to clinical practice. Each obstacle is considered in detail and followed by recommendations for ways to broaden the scope of dissemination efforts.

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So much has been written about the relationships between research and practice in clinical psychology that it seems hardly possible to offer anything new. However, a number of unprecedented changes in both clinical research and practice over the last decade have sparked cautious optimism that science might aid practice (Seligman, 1996) and practice might aid science (Beutler, Williams, Wakefield, & Entwistle, 1995). The increase in master's level practitioners and paraprofessionals has forced doctoral level practitioners to create a distinctive professional niche; evaluation skills and training in evidence-based interventions is one such niche. The rise in managed systems of health care delivery has created incentive systems that potentially favor empirically documented accountability in clinical practice (Hayes, Barlow, & Nelson-Gray, 1999; Marques, 1998). Technical developments in psychotherapy outcome research have led to products such as psychotherapy treatment manuals and standardized outcome measures that can help disseminate empirically supported interventions (Addis, 1997; Hunsley & Runstein-McKean, 1999; Wilson, 1996). Granting agencies such as National Institute of Mental Health (NIMH) and National Institute on Drug Abuse (NIDA) are recognizing the need to tailor treatments to clinical practice realities by studying treatment dissemination as well as existing real-world clinical services. In short, relationships between research and clinical practice are experiencing a surge of interest and opportunity.

My purpose here is to critically evaluate procedures for disseminating research products to clinical practice. I choose the term "research products" rather than empirically supported treatments (ESTs) because it includes, in addition to the latter, all products that may be of use to clinical practice, including assessment instruments, treatment manuals, continuing education (CE) workshops, evidence-based decision-making strategies, and so on. The term "dissemination research" has been used to describe a relatively narrow focus on the effectiveness and
acceptability of ESTs in clinical practice. I use the term in its broadest sense to describe any process that ultimately results in the increased utilization of research products by those in the mental health helping professions. As I hope to show, successful dissemination necessarily involves consideration of treatment development, efficacy, effectiveness, acceptability, service utilization, and psychotherapy process research. From this broader perspective, I consider two commonly offered models for increasing the use of research products in clinical practice. The first attempts to disseminate specific treatments. The second seeks to disseminate a general scientific stance toward all clinical activities. I consider for both models their promises, associated obstacles, and future directions that should help in achieving particular dissemination goals.

TREATMENT DISSEMINATION: PROMISES
A number of developments over the last decade have generated increased interest in disseminating ESTs to clinical practice contexts. The American Psychological Association (APA) Division 12 Task Force on promotion and dissemination of psychological procedures (Task Force, 1995; Chambless & Hollon, 1998; Chambless & Ollendick, 2001), the increasing availability of treatment manuals for specific ESTs, and the proliferation of practice guidelines (Hayes, 1998; Nathan, 1998) have clarified both promises and obstacles associated with the clinical utility of ESTs. The central promise of EST dissemination is that it will enhance clinical outcomes by capitalizing on an actuarial approach to treatment planning and implementation (Wilson, 1993, 1996, 1998). Because ESTs are typically well specified (e.g., treatment manuals and associated training experiences), therapist adherence and competence can be assessed in clinical practice. Standardization of treatments for specific problems or disorders also promises to reduce unnecessary variability and aid in developing practice guidelines, critical pathways, and accountability in clinical practice (Marques, 1998). Thus, what guides this approach to dissemination is the general premise that widespread training of front-line practitioners in ESTs will improve the quality of clinical practice by guaranteeing that services are solidly research-based.

TREATMENT DISSEMINATION: OBSTACLES
Despite the promises associated with ESTs, there are numerous obstacles to dissemination (Addis, Wade, & Hartgis, 1999; Barlow, Levitt, & Butka, 1999; Hatgis et al., in press). First, two central empirical questions remain to be answered. Will the positive effects of ESTs found in controlled research trials generalize to a range of different clinical practice contexts? If the effects do generalize, will treatment dissemination enhance clinical practice outcomes compared to existing services?

An increasing number of benchmarking studies suggest that comparable outcomes can be achieved when ESTs are conducted in clinical service settings versus controlled research trials. For example, Wade, Treat, and Stuart (1998) trained practitioners in a community mental health setting to conduct a manual based EST for panic disorder and found outcomes comparable to efficacy studies of the same treatment. Similar results have been reported for cognitive behavioral therapy (CBT) in the treatment of depression (Organista, Munoz, & Gonzalez, 1994; Persons, Bostrom, & Bertagnoli, 1999), bulimia (Tischchen-Caffier, Pook, & Frank, 2001), obsessive compulsive disorder (Franklin, Abramowitz, Kozak, Levitt, & Foa, 2000), agoraphobia (Hahlweg, Fiegenbaum, Frank, Schroeder, & von Witzleben, 2001), and parent-child interventions in the treatment of oppositional–defiant disorder (Taylor, Schmidt, Pepper, & Hodgkins, 1998; Tynan, Schuman, & Lampert, 1999). These findings suggest that, for the treatments studied, the often cited differences between research and clinical practice contexts do not appear to influence patient outcomes.

Findings demonstrating that ESTs can fare as well in clinical practice as in controlled research do not guarantee that clinical practice outcomes will be improved by disseminating these treatments. Very few studies have directly compared training in ESTs to existing services in a population of front-line service providers. Morgenstern, Blanchard, Morgan, Labovitz, and Hayaki (in press) provided training in a cognitive behavioral EST for substance abuse to a diverse group of practitioners with varying levels of professional training. The researchers found no differences between a structured version of the EST, a flexibly implemented version, and treatment as usual (TAU) on any outcome measures, suggesting that dissemination of this particular substance abuse treatment did not enhance clinical practice outcomes.

The available research on child psychotherapies paints a slightly different picture. Meta-analyses comparing outcomes in clinical practice to research-based therapies typically find poorer outcomes in clinical than in research settings (Weiss & Weiss, 1995; Weiss, Donenberg, Han, &
Weiss, 1995). Weesing and Weisz (in press) benchmarked community care for depressed youths against outcomes of youths treated in CBT trials. Outcomes for youths treated in the community more closely resembled control conditions in the clinical trials. These results indicate that child outcomes in clinical settings could potentially be improved by dissemination of ESTs. However, meta-analytic and benchmarking studies do not experimentally test the effects of disseminating treatments.

The effectiveness of ESTs compared to existing services likely will depend on the clinical population, the particular problem being treated, the practice setting, and the practitioners. This raises an additional obstacle to a more targeted approach to treatment dissemination. At this point, we know very little about the nature of services offered under the broad rubric of “treatment as usual.” The nature of TAU is likely to change from setting to setting. In some settings, for some problems, existing services may be effective and treatment dissemination unnecessary. However, without detailed knowledge of the particular interventions used in a specific service context, it is impossible to know where treatment dissemination will likely enhance outcomes.

Our knowledge base regarding the actual practices of front-line clinicians in service settings is scant. A handful of studies have examined the array of psychosocial treatments provided from the perspective of patient self-report. In a study of patients in a multcenter anxiety disorders study, Goisman, Steketee, and Warshaw (1993) found that behavioral methods were used less frequently than supportive therapy, medication, or psychodynamic therapy. Among behavioral methods, relaxation and imaginary exposure were used less than in vivo exposure. In a later study, Goisman, Warshaw, and Keller examined psychosocial treatments received as self-reported by a sample of 362 anxiety-disorder patients from 1991 to 1996. The percentage of patients receiving any sort of psychosocial treatment either stayed the same or declined. Dynamic psychotherapy remained the most commonly used psychosocial method despite its lack of empirical support. These data suggest that the usual psychosocial care for patients suffering from anxiety disorders is less than optimal. However, the fact that the data are based on patient self-report makes it difficult to know what sorts of interventions were actually offered. Linden (1996) conducted a content analysis of 1,344 case reports for application for cognitive-behavioral psychotherapy in the former West Germany. All persons were eligible to receive up to 25 sessions of CBT. Case reports were required for more than 25 sessions and required therapists to complete an extensive treatment plan including treatment goals and a behavioral analysis. Based on the content of the treatment plans, Linden concluded that the predominant treatment strategies used by therapists were cognitive. However, it is difficult to know from case reports exactly which interventions patients actually receive. This may be even more true in the United States, where reimbursement contingencies may lead practitioners to report treatment plans that have little to do with actual therapy sessions.

If ESTs prove more effective than existing services in particular practice settings, several logistical obstacles will still hinder widespread dissemination. First, the cost associated with training in these treatments can be prohibitive for individual practitioners. Two-day workshops can cost a few to several hundred dollars and follow-up expert supervision can run into the thousands. Managed care organizations are often reticent to absorb costs when employee attrition and loss of contracts are always possibilities (Strosahl, 1998). Moreover, what little research has been done suggests that CE courses are not effective in changing practitioner behavior (Davis, Thomson, Oksman, & Haynes, 1992; VandeCree, Knapp, & Brace, 1990). There are also no empirically supported methods for training ESTs at the pre- and postdoctoral levels. Calhoun, Moras, Pilkonis, and Rehm (1998) make several specific, though untested, recommendations for training in ESTs. These include use of videotapes for demonstration and supervision, regular use of adherence measures, training materials that illustrate common errors and difficulties with a treatment, group supervision, and instruction in ongoing evaluation of individual cases (see also Chambless, 1999).

Second, the length of most empirically supported treatments conflicts with many clinical practice settings where the average number of sessions rarely approaches the typical 8–20 required by ESTs. Third, many ESTs require weekly treatment sessions, which are increasingly uncommon in capitated managed care settings. Fourth, the majority of ESTs are diagnosis-specific, whereas many clients seen in clinical practice do not meet criteria for a specific Axis I disorder (Hayes, 1998; Strosahl, 1998). For clients who do meet diagnostic criteria, full diagnostic workups (i.e., structured interviews) can be costly and
may not be reimbursed. Fifth, the majority of front-line practitioners are increasingly master’s level clinicians unlikely to have the theoretical background necessary for flexible and adherent implementation of ESTs (Addis, Hatgis, Soysa, Zaslavsky, & Bourne, 1999).

A final obstacle to dissemination of ESTs is the potential credibility gap between practitioners, patients, and these treatments. A recent national survey of a large sample of practicing psychologists revealed both positive and negative attitudes toward manual-based treatments (Addis & Krasnow, 2000). Those endorsing negative attitudes felt that manuals detracted from the authenticity of the therapeutic interaction and turned therapists into technicians rather than caring human beings. Such perceptions of ESTs are largely at odds with how clinicians and research therapists experience the treatments (Hatgis et al., in press; Kendall, Chu, Gifford, Hayes, & Nauta, 1998) and suggest a potentially wide credibility gap. Addis and Krasnow (2000) found that positive and negative attitudes are predicted by what practitioners think a manual is. For example, those who think manual-based treatments are structural guidelines set in place by a managed care organization are more likely to have negative attitudes. Other practitioner concerns about ESTs include possible negative effects on the therapeutic relationship, failure to meet the needs of clients with comorbid problems, restriction of clinical innovation, and the possibility that ESTs will encourage “big brother” behavior by managed care companies and clinical administrators (Addis, Wade, & Hatgis, 1999; Barlow et al., 1999).

TREATMENT DISSEMINATION: FUTURE DIRECTIONS
There is a strong need for studies that compare outcomes of ESTs to existing services in clinical practice. Treatment should be conducted by front-line practitioners of varying professional backgrounds, theoretical orientations, and levels of exposure to empirically based practice. More generally, research designs should be tipped toward the generalizability side of the internal versus external validity continuum, particularly with regard to patient selection and service delivery parameters. For example, requiring that patients be given a full diagnostic battery followed by a specific number of weekly sessions may be consistent with a particular EST but impractical in some service contexts. If the clinical setting is modified considerably to meet these constraints, the results of a particular study may well fail to generalize to similar settings, or even to the study cite itself once the research is completed. Clearly, not all parameters of service delivery can be manipulated and their effects on treatment feasibility and outcomes assessed. Thus, there is a strong need to delineate the most relevant structural aspects of service delivery that may moderate the effectiveness of ESTs in clinical practice.

Large-scale process and outcome studies of existing services in a variety of practice settings would be particularly helpful in describing the range and effectiveness of different services. Knowing what therapists actually do in clinical practice should allow for more targeted treatment dissemination rather than the current broad shotgun approach. It is a positive sign that the integration of treatment and services research branches at the NIMH has led to an identified interest in practice research aimed at examining what happens in community care settings (National Advisory Mental Health Council [NAMHC], 1999; Norquist, 2001).

Though documenting the outcomes of ESTs in practice is crucial, several process issues deserve attention. Process here refers not only to treatment but also to the process of different dissemination models and the way in which dissemination is received and embedded in different practice contexts. For example, systemic issues within an organization can have as much or more of an impact on the viability of a treatment as the behavior of clinical practitioners (Backer, Liberman, & Kuehnle, 1986; Clarke, 1995; Hatgis et al., in press; Hoagwood, Hibbs, Brent, & Jensen, 1995; Strosahl, 1998). Organizations that facilitate learning ESTs by providing release time or in-house training are more likely to help the dissemination process than organizations primarily concerned with short-term cost containment. Practice contexts with high burnout rates are unlikely to be conducive to learning ESTs, which often, like all new skills, requires stepping outside one’s comfort zone and trying new interventions with the support and consultation of colleagues.

Treatment process studies based on audio or videotapes of front-line practitioners implementing empirically based treatments can illuminate particular aspects of a treatment that are relatively easy to disseminate and those that deserve more careful consideration. One central issue is the need for reliable and valid ways to distinguish technical adherence from skillful competence in conducting an EST (Addis, Hatgis, et al., 1999; Waltz, Addis, Koerner, & Jacobson, 1993). There is some evidence that
technical adherence so a manual can have deleterious effects on the therapeutic relationship under conditions of strain in the alliance (Castonguay, Goldfried, Wiser, Raue, & Hayes, 1996). However, several studies also demonstrate positive correlations between adherence and outcome in ESTs (Barber, Crites-Christoph, & Luborsky, 1996; DeRubeis & Feeley, 1991; Foley, O'Malley, Rounsaville, Prusoff, & Weissman, 1987; Frank, Kupfer, Wagner, McEachran, & Cornes, 1991; Schulte, Kunzel, Pepping, & Schulte-Bahrenberg, 1992; Shaw et al., 1999). Because variability in therapist behavior will likely be greater in clinical practice than in efficacy studies, delineating competence from rigid adherence becomes all the more important.

Practitioners have much knowledge to offer about the viability of using ESTs in clinical practice contexts. They can provide feedback about the helpfulness of different training experiences, particular clients or situations that present opportunities or obstacles to using ESTs, and the systemic contingencies that affect use of these treatments. Involving practitioners as equal partners in disseminating ESTs requires researchers to create specific contexts that foster and reward collaboration. While being a research therapist is one common form of collaboration, therapist input rarely makes it to the point of publication or dissemination (Hagit et al., in press; Kendall et al., 1998). Demonstration studies of possible partnership models between clinical researchers, clinical practice organizations, and clinical practitioners should help in this respect. Borkovec et al. (2001) describe one such study in which community practitioners collaborated with researchers to create a large practice network for evaluating clinical outcomes. Clinician feedback about the evaluation process was fed directly into the design and implementation of the study.

It would also be helpful to develop more broad-based ESTs that are not specific to particular disorders. In some ways, this has already happened since many ESTs (particularly cognitive-behavioral approaches) share common techniques. However, current training in ESTs requires practitioners to learn discrete treatment packages for particular disorders as opposed to common empirically supported techniques, even though the treatment utility of diagnostic assessment has not been directly tested (Hayes, Nelson, & Jarrett, 1987). Nosological systems are necessary for treatment development and basic research. However, there is no need for the current psychiatric system to dominate and constrain the dissemination of empirically supported interventions. Some common interventions (e.g., problem-solving training, supportive psychotherapy, cognitive restructuring) are used to treat a variety of problems in living and can provide a research-based foundation for treatment that is not diagnosis-specific.

Dissemination of ESTs needs to be grounded in an understanding of different clinical practice contexts, including different incentive systems operating (Addis, Wade, & Hargis, 1999). As one example, practitioners contracting with a capitated managed care organization on a fee-for-service basis can face disincentives for utilizing empirically supported treatments. When these treatments require weekly sessions, between-session preparation, or extrasession interventions (e.g., in vivo exposure), practitioners may be financially punished for not meeting quotas of new intakes or maintaining large existing caseloads. Developing a useful understanding of different practice contexts requires flexibility in methods of inquiry. Focus groups, clinician and administrator interviews, and cost-effectiveness analyses are just some of the methodologies that will help to develop viable models of EST practice in different contexts. For example, focus groups can help uncover the systemic contingencies that make it difficult for practitioners to utilize particular treatments. Such studies may fall under the category of treatment acceptability research (American Psychological Association [APA], 1995; Hayes, 1998), but researchers should be careful to make the process bidirectional rather than unidirectional. In other words, the emphasis is not solely on whether a research product (e.g., an EST) is acceptable to a clinical practice context. Rather, knowledge of different practice contexts should feed directly into the development and evaluation of different treatment methods.

**DISSEMINATION OF AN EVIDENCE-BASED STANCE: PROMISES**

Recognizing the limitations of self-contained treatment packages for specific disorders, some authors have proposed models of integrating science and practice that promote a general evidence-based stance toward clinical decision making. For example, Peterson (1995) offers reflective action as a viable way to integrate research into clinical practice. He poses a tension between scientific rigor and clinical relevance and suggests that in forsaking the former for the latter practitioners need not "fly off into an intuitive never-neverland. Reflection in action draws on past research and documented theory wherever
pertinent research has been done and well-tested theories are available. Wherever high ground appears, we need to seize it, hold it, and work from it in the public benefit" (p. 980). Thus, Peterson's practitioner relies on empirical findings when research is available and is relevant to a particular clinical decision. The clinician is left to decide when empirical findings are present, when they are relevant, and how to proceed in the absence of relevant research.

Other authors have articulated a more process-oriented approach to integrating science and practice. Stricker and Terweiler (1995) draw on Cronbach (1975, 1982) in describing the similarities between research and clinical activities. In both contexts, for example, problems give rise to hypotheses that lead to data collection and evaluation of the hypotheses. Thus, Stricker and Terweiler's (1995) ideal local clinical scientist applies the scientific method to the process of treating individual clinical cases. Problem-solving (e.g., Maguth Nezu & Nezu, 1995; Nezu, Maguth Nezu, Friedman, & Haynes, 1997) and case formulation (Persons, 1989) models have also been developed as ways to reach clinical decisions that are both idiographic and valid.

DISSEMINATION OF AN EVIDENCE-BASED STANCE: OBSTACLES

Perhaps the biggest obstacle to assuming an evidence-based stance is time. Systematically gathering idiographic assessment data, consulting relevant research literature, and integrating the two sources of information probably exceed the abilities of most clinicians carrying a full caseload. This is especially true in managed care reimbursement contexts where extensive paperwork is required and time spent completing it is not compensated. In capitated self-contained clinic settings, practitioners often must schedule in excess of 30 client contact hours per week to both maintain existing caseloads and complete intake assessments.

A second problem is that the specific behaviors comprising an evidence-based approach often are not well defined. For example, Stricker and Terweiler (1995) suggest that local clinical scientists amass whatever data are relevant, combine these with the observations of the immediate setting and with experience gathered from years of local practice, and put it all together in the service of providing assistance to those in need. They become Sherlock Holmeses of the consulting room; learned and astute observers, consummate logicians, and effective agents in the local situation. (p. 998)

There are at least two problems with this model. First, the conditions of clinical mental health practice are not well suited to learning from experience because systematic feedback is rarely gathered and there are considerable time lags between interventions and outcomes (Dawes, 1994; Garb, 1998). The Sherlock Holmes analogy is also inappropriate. Holmes proceeds by falsification (when you have eliminated the impossible, whatever remains, however improbable, must be the truth), whereas clinicians in practice often fall prey to confirmatory biases (e.g., Garb, 1998). Thus, weekly (or monthly) outpatient psychotherapy does not easily lend itself to systematic hypothesis testing without some form of superimposed structure and feedback mechanism. The results of the Fort Bragg experiment are illustrative; in a population-based quasi-experimental study of clinical services for children and adolescents, clinician-driven treatment planning in the context of an expanded continuum of care was more costly and did not enhance outcomes compared to existing less extensive services (Bickman, 1996, 1997). If practitioners were able to make valid treatment decisions from an ongoing evidence-based stance, access to more and better services should have enhanced outcomes. Practitioners in this study were not instructed to adopt an evidence-based stance. However, theoretically, clinical decision making should have been improved by input from multidisciplinary teams operating in a context of expanded services (Bickman, 1996; p. 691). In fact, in a follow-up study, Bickman, Karver, and Schut (1997) found only chance agreement among clinicians on appropriate level of care for particular cases. In short, the available research suggests that practitioners are typically not consummate logicians and hypothesis testers in clinical settings (see Garb, 1998, for a thorough review).

If one obstacle is the practical difficulty of assuming an evidence-based stance, another is the perception that research oversimplifies clinical issues. Many practitioners associate scientific decision making with mindless rule-following. This perception in turn is associated with an ethical concern about clients' well-being. Idiographic clinical judgment is understood as the most conscientious guide for selecting interventions. Of course, an impressive body of literature demonstrates the superiority of actuarial decision making over clinical judgment (e.g., Dawes.
Faust, & Meehl, 1989). But simply citing this body of research is not adequate. Actuarial decision making can reduce practitioner confidence when prior training emphasizes case conceptualization, clinical judgment, and attention to the nuances and subtle differences of individual clients. Reduced confidence is also aversive and any behavior (such as making an actuarially based treatment decision) that precedes it is likely to be punished. Moreover, it is not simply hubris or faulty thinking that leads practitioner to value clinical judgment over actuarial decision making. Popular culture reinforces the notion that a psychotherapist explores the nuances of individual lives and uses his or her wisdom and training to help provide insight into the causes of patients’ problems. The psychotherapist as provider of research-based interventions is not the dominant construction.

Broader systemic contingencies may also fail to reward an evidence-based stance. Hayes (1996) shows how licensing of therapists is problematic because individuals rather than practices are licensed. Individual therapists are given license to make clinical judgments without necessarily following evidence-based approaches. To the degree that licensure is taken as evidence of the validity of clinical decision making, the practice may work against dissemination of evidence-based approaches.

Training experiences also provide obstacles to dissemination of an evidence-based stance. Although some doctoral programs provide specific experiences in integrating science and practice (Calhoun et al., 1998; Chambless, 1999), many graduate students experience an acute tension between research and clinical activities rather than a natural marriage of the two (Addis, 2000). There are several reasons why this is the case. Some programs strongly emphasize either research or clinical practice. The emphasis is apparent not only in concrete training experiences but also in the accomplishments and career choices rewarded by faculty members. Integrating science and practice is difficult to accomplish and the difficulty may not be adequately addressed. Rather, students may understand that they should take an evidence-based stance but often find it difficult or impossible to do so. Admonitions to assume an evidence-based stance, without repeated discussion of the difficulties in taking such a stance, are ineffective at best and can be iatrogenic when the goal is to disseminate science-based practice through graduate training.

A final, and perhaps most easily surmounted, obstacle is the lack of empirical research evaluating the efficacy and clinical utility of process-oriented empirically based decision models (Maguth Nezu & Nezu, 1995; Nezu et al., 1997). Without empirical support, the value of an evidence-based stance to clinical decision making remains a promissory note. Its value is indirectly supported by the research on clinical versus actuarial decision making, but these studies typically involve single predictions of discrete behavioral criteria. Such studies do not address the incremental validity of ongoing evidence-based clinical decision making for achieving better clinical outcomes.

**DISSEMINATION OF AN EVIDENCE-BASED STANCE: FUTURE DIRECTIONS**

Research on the efficacy and clinical utility of general evidence-based stances to clinical practice is an obvious first step. Lambert et al. (2001) recently evaluated the effects of simply providing therapists with ongoing objective feedback on patient progress during the course of therapy. Twice as many patients of therapists receiving feedback achieved reliable and clinically significant improvement compared to patients of therapists not receiving feedback. Utilization by patients expected to have positive outcomes was also reduced (fewer sessions) compared to positive prognosis patients in the control group. This study shows the value of disseminating a relatively simple research tool to clinical practice by using it in an evidence-based fashion. Future studies will hopefully follow suit and evaluate the effectiveness of general evidence-based approaches.

Evidence-based process models of decision making that are feasible in clinical practice are also likely to be useful in clinical training contexts. Beyond training in the mechanics of assuming an evidence-based stance, we need to take a close look at the experiences of our doctoral and master's trainees in relation to the role of science in clinical work (Davison, 1998). Why apparently are so few of our own trainees leaving their training able to take an evidence-based stance to clinical intervention? Focus groups and exploratory interviews would be extremely helpful in illuminating the contingencies that favor or punish empirically oriented decision making. Such data might then serve as framework for developing empirically testable training models. For example, are attitudes toward empirically based practice influenced by discussions about the ethics of different decision-making strategies? Is accountability more widely accepted by repeated discussion of the advantages and disadvantages of an evidence-based
approach in different contexts, or by repeatedly emphasizing the superior value of science? What sorts of training experiences reduce the use of cognitive biases and heuristics in clinical decision making and produce effects that generalize to clinical practice?

Continuing education has traditionally been used as a forum for disseminating specific treatment and assessment techniques. This same forum can be used to disseminate general evidence-based stances toward clinical decision making. It is surprising not to have seen advertisements for CE courses on “achieving accountability in clinical practice” or “integrating research findings into your clinical work.” The difficulty for such offerings is, of course, making them attractive to practitioners. Broader systemic contingencies such as managed care reimbursement strategies may stimulate an interest in research findings. Practitioners can use the empirical basis of a treatment plan as justification to insurance panels for more resources (e.g., extending the number of sessions a client is seen). Therapists with systematic evaluation strategies operating in their practices will also likely have a competitive edge in the professional market.

With few exceptions (e.g., Seligman, 1995), mental health consumers have rarely played a direct role in disseminating research products to clinical practice. The dominant model seems to be one in which researchers develop products, disseminate them to practitioners, and practitioners then disseminate the products to clients. In contrast, pharmaceutical companies have been extremely active in disseminating evidence-based interventions directly to clients via published literature, websites, and advertising campaigns. While psychotherapy research is certainly not funded with the same amount of money as drug research, it should be possible to develop websites and other means for educating the public about the potential role of research in clinical practice. For example, the Task Force on Promotion and Dissemination of Psychological Procedures has developed a consumer-oriented website providing information on empirically supported psychosocial treatments (www.apa.org/divisions/div12/rev_est/index.shtml). Efforts such as this should go a long way toward educating consumers about the availability of research-supported interventions.

Mental health consumers are a rich source of information about attitudes, expectations, and beliefs regarding mental health treatment. Studying lay theories and expectations about mental health obviously speaks directly to treatment acceptability issues (Addis & Jacobson, 1996; Rokke, Carter, Rehm, & Veltum, 1990; Rokke & Scogin, 1995). However, the rationale for involving consumers in research extends well beyond adopting a market-driven approach to dissemination. Because psychotherapy is a way of socially constructing explanations and solutions to problems in living, consumers’ theories and expectations shape the nature of our interventions, individually as well as culturally. For example, the stigmatization of mental and behavioral health problems in this country is a serious obstacle to disseminating evidence-based approaches. Problems that are considered shameful are among the most difficult to solve because the social context of shame requires them to stay hidden. Attributions of blame based on a popular mind-body dualism are another obstacle (Brickman et al., 1982; Fulton, 1998). In our culture, people are generally assumed to be responsible for “mental” problems but not “physical” ones. Drug companies have been extremely creative and proactive in disseminating pharmaceutical treatments partly because medical models of problems in living moderate self-blame by reducing the perceived gap between mental and physical disorders.

CONCLUSION
Throughout this article, I have explored the promises and obstacles associated with disseminating research products to clinical practice. The majority of the issues I have considered have been fairly concrete, involving links between research agendas, proposed models of dissemination, and the constraints of “real-world” clinical practice. A final critical issue has less to do with the specifics of how dissemination is conducted and more to do with how it is constructed in our scientific and public discourse.

The meaning of the term dissemination can be understood by exploring its use in different contexts. A sociologist, for example, might use dissemination to describe a cultural process of spreading particular ideologies and practices. An empirically oriented clinical researcher might use dissemination to describe models of enhancing utilization of evidence-based procedures in clinical practice. What is important about different ways of implicitly or explicitly using the term is that they both shape and reveal a variety of dissemination practices. For example, if dissemination is understood as the spreading of existing practices from one group to another, then the process will necessarily lean toward more unidirectional communication. The process will also be hierarchical. After all, why
else should you use my (fill in the blank), except that mine is better than yours, as is my way of knowing so? Bertrand Russell directly illustrated a hierarchical and unidirectional process of dissemination when he said:

In science men [sic] have discovered an activity of the very highest value in which they are no longer, as in art, dependent for progress upon the appearance of continually greater genius; for in science the successors stand upon the shoulders of their predecessors; where one man [sic] of supreme genius has invented a method, a thousand lesser men can apply it. (1976, emphasis added)

Russell’s quote raises the promises and the pitfalls of a model in which science informs practice but not vice versa. Promised are the considerable epistemological and ethical strengths of empiricism as an approach to human problem solving. But developing knowledge products and disseminating them are different activities in different contexts. In many dissemination contexts, Russell’s construction of the science–practice link becomes problematic. First, it locates us squarely back in the scientists versus practitioners dichotomy, wherein the former are characterized as enlightened critical thinkers and the latter as needing the former’s guidance. In fact, both practitioners and researchers seek to better the human condition, though they may differ in their criteria for what constitutes useful knowledge.3 As long as the “mine is better than yours” approach to dissemination prevails, we are likely to encounter power struggles over professional identity, autonomy, and respect.

The second problem with a hierarchical and unidirectional model of dissemination is that, even if one buys the premise that knowledge should originate in research and be transmitted to practice, constructing the process this way promotes reactance. Practitioners are more likely to adopt research products when they find them useful and can contribute creatively to their development and evaluation; at least more likely than if they are simply told they should adopt them because scientific knowledge is inherently better than clinical knowledge. In short, the pragmatic goal of increasing evidence-based practice is hindered by heavy-handed polemics about the inherent superiority of empirical research and the inferiority of clinical experience.

A quick perusal of some continuing education offerings, self-help books, and prime time talk show “experts” suggests that many clinicians are engaging in practices that have little or no empirical basis. There will always be fringe therapies and therapists who blatantly disregard research evidence while promoting their treatments as the cure-alls for life’s problems. Such practices should be vigorously critiqued in popular and scientific outlets. Doing so perhaps will raise public awareness about the importance of accountability in mental health practice. At the same time, it is a dangerous prospect to place all of our energy in defeating clinical quackery, without also developing a solid means for disseminating what we do have to offer. To start, it locates us squarely back in the research versus clinical practice discourse. In the process it places our energies primarily in attempts to communicate with those who are the least prepared to benefit from what clinical researchers have to offer. An alternative is to turn science toward a better understanding of effective ways to use scientific products. Whether clinical research should guide practice is a normative question, but how research products can aid practice is an empirical one. Good empirical research is guided by good theory. What is needed are creative concepts and studies that directly address the behavior of all parties involved in the research–practice system, including practitioners, clients, administrators, and clinical researchers. In over 50 years of considering the research–practice gap, the most often cited theory to account for its shortcomings is, in its kinder version, the premise that researchers and practitioners think differently, or in its more vitriolic form, the characterological assertion that psychotherapy researchers are out of touch ivory-tower rat runners and practitioners are mindless true believers desperately in need of guidance. This is not good theorizing and it will not lead to good empirical research. Alternatively, we might consider that behaviors such as utilizing an empirically supported treatment, or expressing interest in a practitioners’ clinical experiences, are shaped by current and past environments, attitudes, beliefs, and ways of talking about the problems at hand. We have done quite well as a field using such a framework to understand a variety of human problems and have even had some success developing ways to promote change. It may well prove useful to think similarly about dissemination.

NOTES

1. Practice guidelines are another commonly offered means for disseminating research products (Hayes, 1998; Nathan, 1998). Because guidelines typically encourage practitioners to
utilize specific treatments for specific problems, I've chosen to focus on issues relevant to dissemination of the treatments themselves. Without successful dissemination of treatments, the utility of practice guidelines is largely symbolic.

2. I find decisions based on population parameters to make me less anxious than those based solely on my own judgment of individual cases. I have bought into the idea that I can be easily misled by irrelevant information, and I view the results of actuarial research (e.g., randomized clinical trials) as a helpful guard against such biases. However, we need ways to effectively preach to those other than the converted. Respecting the potential anxiety practitioners experience in making actuarially based decisions is an important step in developing feasible ways to disseminate evidence-based stances.

3. I thank an anonymous reviewer for helping me to clarify this distinction.

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REFERENCES


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