Psychological Treatments

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Psychology has recently identified itself as a health care profession and codified this change in the bylaws of the American Psychological Association. Although psychologists make a number of contributions to the nation's health—and mental health—the most identifiable activity focuses on treating physical or psychological pathology with psychological interventions. Recently, health care policymakers have established that evidence supporting the efficacy of these interventions is more than sufficient for their inclusion in health care systems around the world. To promote faster and more widespread dissemination of these interventions specifically targeting problems severe enough to be included in health care systems and to solidify the identification of psychology as a health care profession, perhaps it is time for a change in terminology. It is proposed that psychologists label these procedures psychological treatments so as to differentiate them from more generic psychotherapy, which is often used outside of the scope of health care systems.

Stunning developments in health care have occurred during the last several years. Widely accepted health care strategies have been brought into question by research evidence as not only lacking benefit but also, perhaps, as inducing harm. In response to this new evidence, health care practices have changed, in some cases dramatically. Much of the evidence on which such changes have been based was first published in reports in two of the world's leading health care journals, *The New England Journal of Medicine* (*NEJM*) and the *Journal of the American Medical Association* (*JAMA*). Even more surprising than the fact that research evidence has changed standard health care practices is how *quickly* it changed health care policy—"more surprising" because knowledge dissemination in the provision of health services is a notoriously slow process taking between 15 to 17 years, according to the best estimates of the Institute of Medicine (2001) of the National Academy of Sciences.

Of course, 15 to 17 years is a vast improvement over the time it took to disseminate health care knowledge in previous eras. For example, in 1601 a British naval captain, concerned with the high mortality rate on long sea voyages and suspecting diet as the culprit, carried out a "controlled study." From a fleet of four ships under his command that were headed from Britain for India, three partook of the usual restricted diet while the crew members of the fourth ship were required to swallow three teaspoons of lemon juice daily. At the halfway point of the voyage, 40% (110 out of 278) of sailors on the "diet as usual" ships had died; in contrast, none of the crew drinking lemon juice had died. And yet, despite this astonishing result, it was 264 years before regulations were passed requiring Vitamin C in the diet of all on British navy and merchant ships (Berwick, 2003). Similarly, the widely accepted health care practice of bloodletting to relieve fever, based on available (humoral) theory of the time, took centuries to overturn and undoubtedly killed millions, including George Washington (Flexner, 1974). Of course, the large majority of feverish patients recovered despite bloodletting, but in the absence of evaluation, their improvement was attributed to the procedure nevertheless.

Brief descriptions of two recent examples will suffice to illustrate the current, more rapid diffusion of knowledge in health care: hormone replacement therapy (HRT) and arthroscopic knee surgery.

Hormone Replacement Therapy

In the past 15 to 20 years, postmenopausal HRT was, perhaps, the most frequently recommended and prescribed treatment in North America. As a result, few families were unaware of the presumed benefits of this widely accepted treatment. Among these alleged benefits was the prevention of osteoporosis and coronary heart disease as well as, of course, the distressing symptom of severe hot flashes. Now, results from a series of randomized clinical trials (Chlebowski et al., 2003; Manson et al., 2003) have clearly demonstrated that HRT not only does not prevent coronary heart disease but may even increase cardiovascular risk (Manson et al., 2003). Furthermore, among women using HRT, there seems to be a significant 26% increase in breast cancer incidence compared with those taking a placebo (Chlebowski et al., 2003). Thus, it seems that one of the most popularly prescribed treatments not only has failed to provide benefit (with a possible exception of fewer fractures and hot flashes) but has also led to significant harm in the population. These studies have rapidly influenced clin-

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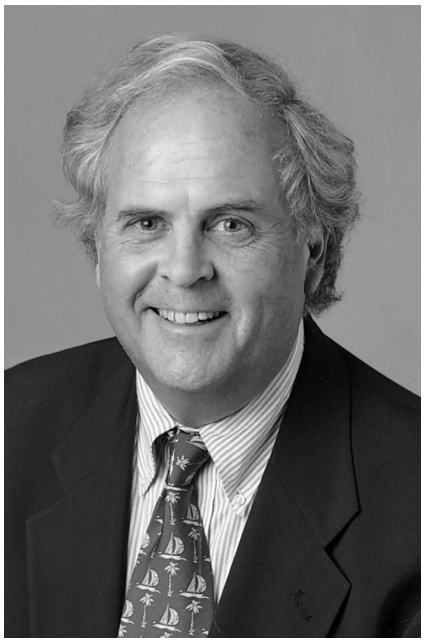

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ical care. Figure 1 presents data reflecting prescriptions for HRT in the province of Ontario, Canada, after a summary statement was published on some of these studies (Rossouw et al., 2002). In this report (Austin, Mamdani, Tu, & Jaakkimainen, 2003), the authors tracked medication use by all 1.3 million residents of Ontario older than 65 years. Prescriptions leveled off subsequent to the release of the summary statement, followed by a sharp downturn. Similar results have now been reported in the United States (Hersh, Stefanick, & Stafford, 2004).

Arthroscopic Knee Surgery

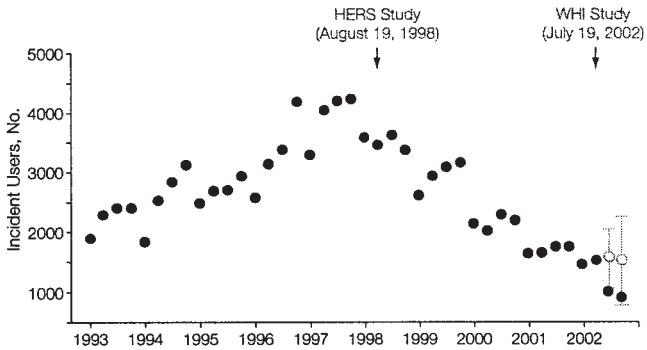
Osteoarthritis of the knee is among the most common degenerative conditions among older patients seeking medical care for pain and functional impairment of the lower extremities. Until recently, arthroscopic knee surgery was one of the most frequently recommended and performed treatments for the condition, largely because the majority of patients reported significant improvements in both pain and functional capacity following the surgery. However, results from researchers at the University of Houston have shown that the benefits derived from arthroscopic surgery (either debridgement or lavage) are in fact unrelated to the actual procedure performed (Moseley et al., 2002). In a double-blind clinical trial of 180 patients, all underwent anesthesia and an incision to the knee, followed by arthroscopic debridgement, arthroscopic lavage, or no procedure (the "sham surgery" control condition). Patients in each group derived benefits as indicated by several subjective measures of pain and both subjective and objective tests of functional capacity. There were no differences on any measures between groups! Even months after the surgeries, patients in all groups were pleased with the results and did not know whether they had received an arthroscopic procedure or a sham surgery. Not surprisingly, this finding astonished the medical community when it was published in *NEJM*. The common practice of arthroscopic surgery for osteoarthritis of the knee was quickly and widely questioned, and its frequency of recommendation and performance had already declined in just the first year following the release of the Moseley et al. study.

The Influence of Evidence-Based Practice

The relatively rapid, if spotty, dissemination of new findings into the health care system resulting in dramatic changes in health care delivery is a relatively recent phenomenon owing in part to several developments. First, an understanding of the nature of various pathologies has advanced rapidly in recent years, which has led to the development of new, more precisely targeted interventions. Second, clinical research methodologies have improved substantially such that threats to internal and external validity are considerably reduced by careful measurement, sophisticated experimental design, greatly improved data-management procedures, and large, often multisite studies that promote generalizability of findings and reduce "allegiance" effects. Third, and most important, governments around the world and their health care systems, faced with demonstrably inadequate health care and spiraling costs, have decided that the quality of health care should improve, that it should be evidence based, and that it is in the public interest to ensure that this happens (Barlow, 1996; Institute of Medicine, 2001).

Evidence-based practice has been defined by Sackett, Straus, Richardson, Rosenberg, and Haynes (2000) as being the integration of the best research evidence with clin-

Figure 1
Prescriptions for Estrogen Replacement Therapy in Ontario, Canada, Before and After Publication of the Women's Health Initiative Study: Incidence of Use of Estrogen Replacement Therapy in Elderly Women



Note. HERS = Heart and Estrogen/Progestin Replacement Study; WHI = Women's Health Initiative. From "Prescriptions for Estrogen Replacement Therapy in Ontario Before and After Publication of the Women's Health Initiative Study," by P. C. Austin, M. M. Mamdani, K. Tu, and L. Jaakkimainen, 2003, *Journal of the American Medical Association, 289,* p. 3241. Copyrighted ©1993, American Medical Association. All rights reserved.

ical expertise and patient preferences and values, and this definition has been adopted by the Institute of Medicine (2001). By "clinical expertise," Sackett et al. referred to advanced clinical skills to diagnose, assess, and treat disorders using evidence-based practice; by "patient preferences and values," they meant including the patient fully in an analysis of the likelihood of benefit and risk of failure in evidence-based practice, using quantitative presentations when possible.

In its July 22, 2003, letter to President Bush that accompanied the final report of the President's New Freedom Commission on Mental Health (2003), the Commission, with substantial input from psychologists, recommended a "fundamental transformation of the Nation's approach to mental health care" (President's New Freedom Commission on Mental Health, 2003, p. 1). Among the commission's other important recommendations are 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" (President's New Freedom Commission on Mental Health, 2003, p. 25).

The Substance Abuse and Mental Health Services Administration (SAMHSA), an agency of the U.S. Department of Health and Human Services with an annual budget of around $3.2 billion in Fiscal Year 2003, has as its mission the dissemination of evidence-based treatments at the community level to improve the quality and availability of services (SAMHSA, 2003). In support of this goal, SAMHSA recently announced awards totaling $8.5 million over three years to nine states to implement and evaluate evidence-based practices for treating mental illness. National health services around the world are also undertaking this task (Barlow, 2002).

Psychology as a Health Care Profession

In 2001, the American Psychological Association (APA) revised its mission statement to affirm its current status and future aspiration as a health care profession, with the aim of participating fully in national health care schemes currently under development (APA, 2001, Article 1, No.1; Johnson, 2001). Indeed, most APA members would endorse the quickening momentum for universal health care coverage, full parity for psychological disorders as these disorders are integrated into health care, and the reduction of heavy administrative costs associated with the privatization of the health care system (Richmond & Fien, 2003). Although the ways in which psychologists fulfill the APA mission as health care professionals are many and varied, the practice of what is generally referred to as "psychotherapy," directed at different manifestations of psychopathology or psychological components of physical disorders, constitutes the core identity of most practicing psychologists.[1] Major obstacles to greater inclusion of psychologists in developing health care systems have included existing stigma against mental disorders or psychological aspects of physical disorders (Corrigan & Watson, 2002), a strong push for substantially increased use of pharmacological treatments for most disorders (e.g., Olfson et al., 2002), and questions focusing on the effectiveness of psychological interventions for these often chronic conditions.

Thus, a set of somewhat curious findings appearing in *JAMA,* depicting trends in the delivery of psychotherapy, were unsurprising to many following these developments (Olfson et al., 2002). Taking the treatment of depression from 1987 to 1997 as a point of reference, Olfson et al. reported that the number of people treated increased significantly. But the proportion of treated individuals who used antidepressant medication increased from 37.3% to 74.5%, whereas the proportion who received psychotherapy declined from 71.1% to 60.2%. And, as Olfson et al. conceded, their definition of psychotherapy is overly broad, encompassing as it does any provision of "mental health counseling" for part of a session focused, perhaps, on drug compliance (Rifkin, 2002). Perhaps more important, the types of clinicians delivering psychotherapy also shifted over that decade, largely from mental health professionals to primary care clinicians. Specifically, the proportion of patients who received outpatient "psychotherapy" for depression by a physician rose from 68.9% to 87.3%. The proportion treated by psychologists declined from 29.8% to 19.1%. The corresponding number of sessions of therapy also dropped dramatically.

Evidence for Psychological Treatments in Health Care Systems

However, in *JAMA* and *NEJM,* the same two journals in which evidence that changes health care policy is often first published, evidence on psychological interventions meeting the same extremely rigorous criteria that have forced reconsideration of the widely accepted treatments of HRT and arthroscopic knee surgery has appeared. It is interesting to note that although there is still much to learn, this evidence shows that a new generation of powerful psychological interventions are as effective, if not more effective, than extant pharmacological treatments or alternative psychotherapeutic procedures *when evaluated in the context of specific disorders*. Table 1 portrays the major studies presenting this information and focusing on both psychological and physical disorders published in *JAMA* and *NEJM* since 1998. As shown in this table, several studies have demonstrated the success of psychological treatments for stress incontinence in women when compared with medications or alternative therapies, both immediately after the end of treatment as well as at follow-up (Burgio et al., 1998; Goode et al., 2003). Another study demonstrated the efficacy of psychological treatments compared with medi-

[1] Of course, among individuals not afflicted with recognizable physical or psychological pathology, psychotherapy for the promotion of better adjustment, resolution of problems in living, or personal growth has a long and distinguished tradition. But this activity, although enriching for many individuals, falls outside the parameters of any health care system and will not be further considered here.

Table 1
Specific Psychological Treatments Versus Medication or Alternative Treatments, All Since 1998, From the Journal of the American Medical Association or the New England Journal of Medicine

Disorder/population	Results	Study
Stress incontinence in the elderly/women	PT > meds + control at posttreatment and follow-up	Burgio et al. (1998) Goode et al. (2003)
Insomnia	PT > meds, placebo at posttreatment and follow-up	Morin, Colecchi, Stone, Sood, & Brink (1999)
Depression, physical health in Alzheimer's patients	PT > routine medical care	Teri et al. (2003)
Gulf War veterans' illnesses	PT > usual care or alternative treatments at follow-up (modest effects)	Donta et al. (2003)
Depression	PT alone = meds alone (PT + meds) > either alone or at follow-up	Keller et al. (2000)
Panic disorder	Posttreatment: PT = meds; PT or meds > placebo Follow-up: PT > meds; PT > (PT + meds)	Barlow, Gorman, Shear, & Woods (2000)
Depression in low-income young minority women	PT or meds > community referral (at posttreatment; no long-term results)	Miranda et al. (2003)

NOTE. PT = psychological treatments; Meds = medication.

cations or placebo for insomnia both after treatment and at follow-up (Morin, Colecchi, Stone, Sood, & Brink, 1999).

More recently, a very important study demonstrated that psychological and behavioral interventions substantially improved depression and physical health and tended to delay institutionalization in a community study of patients with Alzheimer's disease (Teri et al., 2003). Yet another large trial highlighted the benefits of psychological interventions compared with usual care or alternative treatments for the multisymptom illness characterized by persistent pain, fatigue, and cognitive symptoms that is known as Gulf War Veterans' Illnesses (Donta et al., 2003).

For more common psychological disorders, a large clinical trial published in *NEJM* reported that a new psychological treatment for chronic depression was equally as effective as treatment with powerful antidepressant medications. It is noteworthy that the efficacy of the combination of psychological and medication treatment exceeded that of the individual treatments (monotherapies; Keller et al., 2000). For panic disorder, a study my colleagues and I conducted (Barlow, Gorman, Shear, & Woods, 2000) indicated once again that psychological interventions performed as well as powerful medications immediately after treatment and maintenance therapy for panic disorder, and both were superior to placebo. However, at follow-up the psychological treatments were more enduring in that fewer patients suffered relapse.

Finally, a recent study investigating the effects of treatment for depression in low-income young minority women also indicated that both psychological treatment and medications were superior to treatment as usual in community agencies in relieving depression in these young women. In this trial, however, medications had somewhat of an advantage at least immediately following treatment, because of issues related to compliance with the psychological treatments (Miranda et al., 2003). Follow-up from this study has not yet been reported. What is apparent from Table 1 is that the targets of treatment are very diverse, ranging from incontinence to depression, and the psychological treatments with proven effectiveness also necessarily differ from each other because they are specifically tailored to the problems at hand.

Furthermore, during the past 10 years, literally hundreds of studies have appeared that evaluate psychological treatments. Although healthy debates continue about appropriate criteria and methodologies for these studies (e.g., Baskin, Tierney, Minami, & Wampold, 2003; Westen & Morrison, 2001; Westen, Novotny, & Thompson-Brenner, 2004), the fact is that these studies meet the stringent criteria currently required to influence health care policy and practice. These criteria include sophisticated measures of outcome; broad inclusion criteria encompassing both comorbid and noncomorbid subjects; proper controls for allegiance effect, often using multisite designs in which investigators with differing allegiances conduct the treatment (Luborsky et al., 2002); and the most up-to-date data-management procedures. These studies, in turn, have been subjected to summary analyses (including meta-analyses) conducted by the National Institute of Mental Health, other health services around the world such as the National Health Service of the United Kingdom (Roth & Fonagy, 1996), state associations (e.g., Chorpita et al., 2002), and other government agencies and guild groups such as the American Psychiatric Association (2000). Results of these analyses, across a wide range of adults' and children's psychological and physical disorders, ranging from phobias through cardiovascular disease and cancer, have been reviewed extensively elsewhere (e.g., Barrett & Ollendick,

2003; Chorpita et al., 2002; Gatchel & Turk, 2002; Gatz et al., 1998; Kazdin & Weisz, 2003; Nathan & Gorman, 1998, 2002; Roth & Fonagy, 1996, 2004; Smith, Kendall, & Keefe, 2002). These reports consistently show that when properly designed psychological treatments are matched to specific forms of pathology in psychological or physical disorders, robust effects are apparent.

As is evident from these reports, diverse but specifically designed psychological treatments emerging from different theoretical persuasions have established proven efficacy when they are compared with alternative treatments, including alternative psychological treatments. For example, in major depressive disorder, both drugs and psychological treatments seem to have approximately equal effects, although on the basis of the large trial mentioned earlier, these treatments still exceed the nonspecific effects of placebo tablets (Keller et al., 2000). But in this case, advances in knowledge of the psychopathology of mood disorders seem to be making it clear that the wrong target is being addressed. That is, it is now known that major depressive episodes will respond to most reasonable treatments in the short term or will remit on their own, but they will almost always recur (Judd, 1997). To be truly effective, treatments, whether psychological or pharmacological, must prevent recurrence of future depressive episodes. On the basis of the most recent evidence, psychological treatments alone seem to provide their durable benefits after treatment discontinuation, even for severe depression (e.g., Fava, Rafanelli, Grandi, Conti, & Belluardo, 1998; Hollon & Beck, 2004; Hollon, Thase, & Markowitz, 2002; Paykel et al., 1999; Teasdale et al., 2000).

Although these psychological treatments vary considerably from one another, they are characterized by three principal features. First, as noted previously, they are specifically tailored to the pathological process that is causing the impairment and distress on the part of the patient. Treatments for trichotillomania, panic disorder, chronic pain, irritable bowel syndrome, or insomnia necessarily differ, and few would now argue that diversity in procedures to address specific aspects of pathology is not necessary. Thus, any analyses that attempt to average across various manifestations of pathology will not provide meaningful results, nor are data for any kind of interventions, psychological or medical, analyzed in this way by health care policymakers.

Second, most of the techniques incorporated into these treatments emerge from the laboratories of psychological science—more specifically, cognitive science and behavioral science—with strong input from the fields of social psychology and interpersonal processes. These techniques are then adapted to the treatment of psychological disorders (Bouton, Mineka, & Barlow, 2001).

Third, these treatments emanate from diverse theoretical approaches, and these approaches are becoming less clearly demarcated as treatments inevitably begin to blend theoretically driven strategies based on emerging evidence of effectiveness. For example, it is interesting to note that motivational interviewing, one of the psychological treatments of choice for alcohol and drug abuse at the current time because of its established efficacy and short duration, derives in part from nondirective Rogerian procedures (Burke, Arkowitz, & Mencola, 2003; Miller & Rollnick, 2002). It is also clear from recent analyses of the effects of psychological treatments on psychological disorders that the studies on which these conclusions are based overrepresent those individuals with more severe psychopathology; thus, the conclusions may not apply to individuals whose symptoms rate lower on the dimension of severity (Stirman, DeRubeis, Crits-Christoph, & Brody, 2003).

Psychological Treatments and Psychotherapy

What should these treatments be called? In fact, they have been called by many names or labels that usually reflect their past theoretical derivation. These names include, among others, *assertive community treatment, cognitive–behavioral therapy, community reinforcement approaches, dialectical behavior therapy, family focused therapy, motivational interviewing, multisystemic interpersonal therapy, parent training* (for externalizing disorders in children), *personal therapy for schizophrenia,* and *stress and pain management procedures*. Furthermore, while retaining the strengths of traditional psychotherapy, including the importance of therapeutic alliance, the induction of positive expectancy of change, and remoralization, these treatments build on these strengths by including specific psychological procedures targeted to the psychopathology at hand. Thus, the most appropriate name to characterize these new treatments and to differentiate these efforts from more generic psychotherapy may be *psychological treatments.*

These are important developments! The strength of the existing data supporting psychological treatments, although far from ideal, is such that if similar data were available to major pharmaceutical companies in support of new drugs, several actions would be taken immediately. First, these companies would allocate tens of millions of dollars to major marketing campaigns to educate prescribers on the newly established benefits of their treatments. Second, the companies would be increasingly likely, on the basis of current trends, to go directly to the public with the message that anyone suffering from one disorder or another is likely to benefit from this treatment and that the benefit is likely to endure long after the treatment has stopped. Of course, those developing and providing psychological treatments do not have the infrastructure to initiate this kind of marketing campaign; but if that were so, it would seem that the trends in the health care system toward less psychological care and more medication could and would be reversed. This conclusion is based partly on the fact that survey after survey, across a variety of specific disorders, has demonstrated clearly that when given a choice, the public prefers psychological interventions to pharmacological interventions, even at sites known primarily for expertise in pharmacological intervention (e.g., Hazlett-Stevens et al., 2002; Hofmann et al., 1998; Mitchell et al., 1990; Wilson & Fairburn, 2002; Zoellner, Feeny, Cochran, & Pruitt, 2003).

Questions and Challenges

Because these psychological treatments remain relatively new, questions have emerged on a number of fronts. Some questions represent misunderstandings of these approaches. Others focus on areas where knowledge is lacking, and these represent future challenges.

Role of Relationships and Patient–Treatment Matching

Contrary to some assumptions, recent data indicate that psychological treatments require considerable clinical expertise and a strong therapeutic relationship to maximize efficacy, at least for patients on the more severe end of the spectrum of psychopathology (Klein et al., 2003; Norcross, 2002). Analyses, including one that my colleagues and I conducted (Huppert et al., 2001), have shown that therapist variables such as experience contribute to successful outcome in these treatments. Furthermore, it seems that specific strategies that experienced therapists choose to undertake when confronted with a variety of different patient styles contribute to the determination of outcome (Beutler, Moleiro, & Talebi, 2002; Castonguay, Goldfried, Wiser, Raue, & Hayes, 1996). For example, in a study on panic disorder (Huppert, Barlow, Gorman, Shear, & Woods, 2004), expert therapists confronted with patients with low motivation who then became more nondirective were associated with better results than therapists who remained directive, a finding that echoes previous results on patient–treatment matching (Beutler & Harwood, 2000). But this research on therapist variables occurs in the context of considering, first and foremost, the presenting psychopathology of the patient.

Another indicator of the importance of a therapist, preferably a highly trained and experienced psychologist, is that simply providing the patient with a self-help book or manual is relatively ineffective, at least for individuals with more severe psychopathology. For example, Ehlers et al. (2003) treated patients with posttraumatic stress disorder (PTSD) following car accidents whose PTSD was severe enough that they were at risk for chronic symptoms and who did not show signs of recovery during the initial assessment or during three weeks of self-monitoring. Only then were patients randomized to treatment, a self-help book, or assessment only. At a nine-month follow-up, 11% of patients who received treatment still met the criteria for PTSD, compared with 61% of patients in the self-help group and 55% of those who underwent assessments only.

However, well-written self-help manuals, Internet resources, and telehealth programs containing up-to-date, easy-to-follow psychological treatments seem effective in reducing impairment for individuals with less severe manifestations of pathology (e.g., Kenardy et al., 2003; see Norcross et al., 2003, for an excellent compendium). Telehealth procedures typically refer to intervention and assessment using electronic communication such as telephone or Internet technologies. The President's New Freedom Commission on Mental Health (2003) strongly encouraged continued development in the area of health technology and telehealth to facilitate contact with untold numbers of individuals unable to access mental health professionals.

Thus, there are three overriding principles in evaluating the robustness of psychological treatments, as depicted in Table 2. First, it is important to match the psychological intervention to the psychological or physical disorder or problem. This is the strategy exemplified in the variety of meta-analyses and studies by government agencies and national health services referred to earlier. Second, it is important to match the treatment to patient and therapist characteristics, as detailed previously. Finally, the evaluation of treatments must be considered in the context of the actual settings in which the treatments are provided (effectiveness).

Emerging Research on Knowledge Transfer

Another question often raised about the new psychological treatments is their transportability. This question is usually phrased in the context of "efficacy" versus "effectiveness" or "clinical utility" (APA, 2002) in which it is noted that treatments, either psychological or pharmacological, would be of little use if they were effective only in large, controlled clinical trials and not in the front lines of clinical care where they are most needed. These questions are receiving considerable attention but need more attention focused not only on psychological treatments but also on the entire spectrum of health care innovations as governments around the world pour billions of dollars into evidence-based care efforts, with the promise of improving health care and ultimately reducing costs (Barlow, Levitt, & Bufka, 1999; Berwick, 2003; Institute of Medicine, 2001; President's New Freedom Commission on Mental Health, 2003). Although it is not the purpose of this review to consider this issue in great detail, a few observations are relevant.

Current major factors impeding transfer and dissemination include administrative constraints and policies that preclude adequate time and resources for delivery of psychological treatments, resulting in an inadequate "dose" of treatment (Hansen, Lambert, & Forman, 2002; Hatgis et al., 2001). Generally, these policies favor the administration of drugs, which require only minimal time from health care professionals, despite evidence that psychological treatments are more cost-effective in the mid- to long-term for psychological disorders (Miller & Magruder, 1999) and

Table 2
Three Principles for Evaluation of Psychological Treatments

Principle	Treatment match
1	Match treatment to specific psychological or physical pathology
2	Match treatment to patient characteristics
3	Match treatment to setting (effectiveness research)

also for physical disorders, particularly in terms of health care cost offset (Kaplan & Groessl, 2002). Thus, it is encouraging that recent efforts to implement these specific psychological treatments comprehensively in front-line clinics, where some patients would not meet the inclusion criteria of many research studies, have produced results every bit as robust as those from research clinics when the treatments are administered in a sufficient dosage (adequate number of sessions) (Franklin, Abramowitz, Kozak, Levitt, & Foa, 2000; Hahlweg, Fiegenbaum, Frank, Schroeder, & von Witzblen, 2001; Juster, Heimberg, & Engelberg, 1995; Lincoln et al., 2003; Merrill, Tolbert, & Wade, 2003; Shadish et al., 1997; Stuart, Treat, & Wade, 2000; Wade, Treat, & Stuart, 1998). But this is only the beginning of this kind of research; the parameters of effective dissemination are sure to be complex.

It is also interesting that this question of transportability and dissemination has seldom been asked in the context of pharmacological or other treatments. Most often the assumption has been that if a treatment is proven effective in standardized clinical trials, it will then be approved by the Food and Drug Administration and disseminated widely. This assumption is seldom tested, but it needs to be.

In any case, a number of large-scale important efforts are underway to study and facilitate the transfer of evidence-based psychological treatments to the community. In 1994 the state of Hawaii settled a class-action lawsuit brought before federal court on behalf of children with special needs. This settlement was referred to as the Felix Consent Decree, and it stipulated that the state would be required to provide necessary services for children with mental health problems so that they might be able to take advantage of public education. To improve the quality and availability of effective services within the mental health system, the state established the Child and Adolescent Mental Health Division Empirical Basis to Services Task Force in October of 1999. It is important to note that participants in this task force included health care administrators, parents of children needing services, clinical service providers, and academicians from the areas of psychology, psychiatry, nursing, and social work.

With the consultation of many nationally known child and adolescent psychologists, this task force has already identified evidence-based psychological treatments, with particular attention to the cultural appropriateness of these treatments for the state of Hawaii, and is in the process of large-scale training and implementation of these programs (Chorpita et al., 2002). What is notable about this effort is the importance accorded psychological treatments, the clear guideline that psychological treatments be allowed the number of sessions necessary to effect maximum change, and the inclusion of all stakeholders in the process. Commissioners of mental health around the country are currently looking to this effort to guide initiatives in their own states (e.g., Hogan, 2002).

Another example is the SAMHSA-sponsored National Child Traumatic Stress Network. This recently established network currently consists of 54 centers whose purpose is to disseminate evidence-based clinical interventions that diminish the effects of trauma in children and families. The mission of this network is to support the development, dissemination, adoption, and adaptation of evidence-based practices for traumatized youth and their families nationwide. To accomplish this goal, some centers are "Treatment Development" centers while others are front-line delivery centers, and the goal of this network is to facilitate close collaboration of these centers in developing and adapting evidence-based psychological treatments to relieve the enormous burden engendered by exposure to trauma in children and adolescents. This initiative, funded by over 30 million federal dollars, should not only accomplish the kind of rapid dissemination of evidence-based knowledge that has occurred in the case of HRT and arthroscopic knee surgery but should also provide an invaluable laboratory for further study of the most efficient and effective ways to disseminate new information on psychological interventions. Finally, the National Institute on Drug Abuse (NIDA) has created and funded a large clinical trials network expressly to promote and evaluate evidence-based treatments in community substance abuse centers (NIDA, 2004).

Implications for Psychologists in Emerging Health Care Systems

Psychologists are strongly positioned to address the very real needs of millions of people suffering from psychological disorders and seeking treatment in the health care system. The ability to prescribe medications, which is likely to evolve over the next decade or two, is a treatment option that psychologists will share with many other health care professionals. But psychologists will be in a unique position as the primary providers of psychological treatments derived from psychological science and targeted to specific forms of psychopathology. At the very least, psychologists should be the principal architects of the health care service systems set up to deliver psychological treatments. Only psychologists, who have the depth of training in the various areas of cognitive and behavioral science and social and interpersonal processes, can be intimately familiar with these sophisticated treatments.

It is increasingly borne out in practice, at least in our own extensive efforts at dissemination and training, that it is more difficult for nonpsychologists to become sophisticated purveyors of psychological treatments, although there is marked individual variability within any profession. To confirm this impression, a program of research could examine the ease of dissemination and quality of administration of psychological treatments among psychologists and other health care professionals in front-line health care delivery systems. Much as a doctoral degree and a license in medicine are required for an individual to administer medical treatments for physical diseases, as these ensure a practitioner's firm grounding in biomedical science and practice, a case could then be made that a psychology doctorate and license are the sine qua non for the administration of psychological treatments for psychological disorders, as these ensure that a practitioner has

completed a rigorous sequence of course work and training in psychological principles and treatments.

In this regard, perhaps the time has come, as suggested previously, to clearly distinguish these interventions, designed and targeted as they are for specific forms of pathology or dysfunction, from the more generic term *psychotherapy* that is practiced by all professions (and nonprofessionals, if one looks in the yellow pages of the phone book). That is, although the practice of psychotherapy is not identified with any one profession, the development and administration of *psychological treatments* would be uniquely identified with the profession of psychology, practicing in the context of a health care system for the benefit of individuals presenting with problems of sufficient severity to place them in that system. This, of course, would include targeted efforts to prevent individuals from entering the system in the first place.

In view of the demonstrated preference of the public for these treatments and the fact that these approaches are as good as, or better than, alternative nonpsychological treatments for many specific disorders, the development of psychological treatments is a positive development for the public and health care policymakers. More important, psychological treatments will be a growth area for the profession of psychology for years to come.

REFERENCES

American Psychiatric Association. (2000). Practice guideline for the treatment of patients with major depressive disorder (Revision). *American Journal of Psychiatry, 157(*Suppl.), 1–45.

American Psychological Association. (2001). Amendment to bylaws accepted. *Monitor on Psychology, 32.* Retrieved March 9, 2004, from www.apa.org/monitor/julaug01/amendaccept.html

American Psychological Association. (2002). Criteria for evaluating treatment guidelines. *American Psychologist, 57,* 1052–1059.

Austin, P. C., Mamdani, M. M., Tu, K., & Jaakkimainen, L. (2003). Prescriptions for estrogen replacement therapy in Ontario before and after publication of the Women's Health Initiative Study. *Journal of the American Medical Association, 289,* 3241–3242.

Barlow, D. H. (1996). Health care policy, psychotherapy research, and the future of psychotherapy. *American Psychologist, 51,* 1050–1058.

Barlow, D. H. (2002). *Anxiety and its disorders: The nature and treatment of anxiety and panic* (2nd ed.). New York: Guilford Press.

Barlow, D. H., Gorman, J. M., Shear, M. K., & Woods, S. W. (2000). Cognitive-behavioral therapy, imipramine, or their combination for panic disorder: A randomized controlled trial. *Journal of the American Medical Association, 283,* 2529–2536.

Barlow, D. H., Levitt, J. T., & Bufka, L. F. (1999). The dissemination of empirically supported treatments: A view to the future. *Behaviour Research and Therapy, 37,* S147–S162.

Barrett, P. M., & Ollendick, T. H. (Eds.). (2003). *Handbook of interventions that work with children and adolescents.* West Sussex, England: Wiley.

Baskin, T. W., Tierney, S. C., Minami, T., & Wampold, B. E. (2003). Establishing specificity in psychotherapy: A meta-analysis of structural equivalence of placebo controls. *Journal of Consulting and Clinical Psychology, 71,* 973–979.

Berwick, D. M. (2003). Disseminating innovations in health care. *Journal of the American Medical Association, 289,* 1969–1975.

Beutler, L. E., & Harwood, M. T. (2000). *Prescriptive therapy: A practical guide to systematic treatment selection.* New York: Oxford University Press.

Beutler, L. E., Moleiro, C., & Talebi, H. (2002). Resistance in psychotherapy: What conclusions are supported by research? *Journal of Clinical Psychology, 58,* 207–217.

Bouton, M. E., Mineka, S., & Barlow, D. H. (2001). A modern learning-theory perspective on the etiology of panic disorder. *Psychological Review, 108,* 4–32.

Burgio, K. L., Goode, P. S., Locher, J. L., Umlauf, M. G., Roth, D. L., Richter, H. E., et al. (1998). Behavioral training with and without biofeedback in the treatment of urge incontinence in older women: A randomized controlled trial. *Journal of the American Medical Association, 288,* 2293–2299.

Burke, B. L., Arkowitz, H., & Mencola, M. (2003). The efficacy of motivational interviewing: A meta-analysis of controlled clinical trials. *Journal of Consulting and Clinical Psychology, 71,* 843–861.

Castonguay, L. G., Goldfried, M. R., Wiser, S., Raue, P. J., & Hayes, A. M. (1996). Predicting the effect of cognitive therapy for depression: A study of unique and common factors. *Journal of Consulting and Clinical Psychology, 64,* 497–504.

Chlebowski, R. T., Hendrix, S. L., Langer, R. D., Stefanick, M. L., Gass, M., Lane, D., et al. (2003). Influence of estrogen plus progestin on breast cancer and mammography in healthy postmenopausal women. *Journal of the American Medical Association, 289,* 3243–3253.

Chorpita, B. F., Yim, L. M., Donkervoet, J. C., Arensdorf, A., Amundsen, M. J., McGee, C., et al. (2002). Toward large-scale implementation of empirically supported treatments for children: A review and observations by the Hawaii Empirical Basis to Services Task Force. *Clinical Psychology: Science and Practice, 9,* 165–190.

Corrigan, P. W., & Watson, A. C. (2002). The paradox of self-stigma and mental illness. *Clinical Psychology: Science and Practice, 9,* 35–53.

Donta, S. T., Clauw, D. J., Engel, C. C., Guarino, P., Peduzzi, P., Williams, D. A., et al. (2003). Cognitive behavioral therapy and aerobic exercise for Gulf War veteran's illnesses: A randomized controlled trial. *Journal of the American Medical Association, 289,* 1396–1404.

Ehlers, A., Clark, D. M., Hackmann, A., McManus, F., Fennell, M., Herbert, C., et al. (2003). A randomized controlled trial of cognitive therapy, a self-help booklet, and repeated assessments as early interventions for posttraumatic stress disorder. *Archives of General Psychiatry, 60,* 1024–1032.

Fava, G. A., Rafanelli, C., Grandi, S., Conti, S., & Belluardo, P. (1998). Prevention of recurrent depression with cognitive behavioral therapy: Preliminary findings. *Archives of General Psychiatry, 55,* 816–820.

Flexner, J. T. (1974). *Washington: The indispensable man.* New York: Little, Brown.

Franklin, M. E., Abramowitz, J. S., Kozak, M. J., Levitt, J. T., & Foa, E. B. (2000). Effectiveness of exposure and ritual prevention for obsessive-compulsive disorder: Randomized compared with nonrandomized samples. *Journal of Consulting and Clinical Psychology, 68,* 594–602.

Gatchel, R. J., & Turk, D. C. (2002). *Psychological approaches to pain management* (2nd ed.). New York: Guilford Press.

Gatz, M., Fiske, A., Fox, L. S., Kaskie, B., Kasl-Godley, J. E., McCallum, T. J., et al. (1998). Empirically validated psychological treatments for older adults. *Journal of Mental Health and Aging, 4,* 9–46.

Goode, P. S., Burgio, K. L., Locher, J. L., Roth, D. L., Umlauf, M. G., Richter, H. E., et al. (2003). Effect of behavioral training with or without pelvic floor electrical stimulation on stress incontinence in women: A randomized controlled trial. *Journal of the American Medical Association, 290,* 345–352.

Hahlweg, K., Fiegenbaum, W., Frank, M., Schroeder, B., & von Witzblen, I. (2001). Short- and long-term effectiveness of an empirically supported treatment for agoraphobia. *Journal of Consulting and Clinical Psychology, 69,* 375–382.

Hansen, N. B., Lambert, M. J., & Forman, E. M. (2002). The psychotherapy dose-response effect and its implications for treatment delivery services. *Clinical Psychology: Science and Practice, 9,* 329–343.

Hatgis, C., Addis, M. E., Krasnow, A. D., Zaslavsky Khazan, I., Jacob, K. L., Chiancola, S., et al. (2001). Cross-fertilization versus transmission: Recommendations for developing a bidirectional approach to psychotherapy dissemination research. *Applied & Preventive Psychology, 10,* 37–49.

Hazlett-Stevens, H., Craske, M. G., Roy-Byrne, P. P., Sherbourne, C. D., Stein, M. B., & Bystritsky, A. (2002). Predictors of willingness to

consider medication and psychosocial treatment for panic disorder in primary care patients. *General Hospital Psychiatry, 24,* 316–321.
Hersh, A. L., Stefanick, M. L., & Stafford, R. S. (2004). National use of postmenopausal hormone therapy: Annual trends and response to recent evidence. *Journal of the American Medical Association, 291,* 47–53.
Hofmann, S. G., Barlow, D. H., Papp, L. A., Detweiler, M. F., Ray, S. E., Shear, M. K., et al. (1998). Pretreatment attrition in a comparative treatment outcome study on panic disorder. *American Journal of Psychiatry, 155,* 43–47.
Hogan, M. F. (2002). A partly built bridge between science and services: Commentary on the Hawaii Empirical Basis to Services Task Force. *Clinical Psychology: Science and Practice, 9,* 200–203.
Hollon, S. D., & Beck, A. T. (2004). Cognitive and cognitive-behavioral therapies. In M. J. Lambert (Ed.), *Garfield and Bergin's handbook of psychotherapy and behavior change: An empirical analysis* (5th ed., pp. 447–492). New York: Wiley.
Hollon, S. D., Thase, M. E., & Markowitz, J. C. (2002). Treatment and prevention of depression. *Psychological Science in the Public Interest, 3,* 39–77.
Huppert, J. D., Barlow, D. H., Gorman, J. M., Shear, M. K., & Woods, S. W. (2004). *Expectancy, motivation, therapist adherence and outcome in cognitive behavioral therapy for panic disorder: Results from a multi-center trial*. Manuscript submitted for publication.
Huppert, J. D., Bufka, L. F., Barlow, D. H., Gorman, J. M., Shear, M. K., & Woods, S. W. (2001). Therapists, therapist variables, and cognitive–behavioral therapy outcome in a multicenter trial for panic disorder. *Journal of Consulting and Clinical Psychology, 69,* 747–755.
Institute of Medicine. (2001). *Crossing the quality chasm: A new health system for the 21st century*. Washington, DC: National Academy Press.
Johnson, N. G. (2001). President's column: Psychology's mission includes health: An opportunity. *Monitor on Psychology, 32*(4). Retrieved January 5, 2004, from www.apa.org/monitor/apr01/pc.html
Judd, L. L. (1997). The clinical course of unipolar major depressive disorders. *Archives of General Psychiatry, 54,* 989–991.
Juster, H. R., Heimberg, R. G., & Engelberg, B. (1995). Self-selection and sample selection in a treatment study of social phobia. *Behaviour Research and Therapy, 33,* 321–324.
Kaplan, R. M., & Groessl, E. J. (2002). Applications of cost-effectiveness methodologies in behavioral medicine. *Journal of Consulting and Clinical Psychology, 70*, 482–493.
Kazdin, A. E., & Weisz, J. R. (2003). *Evidence-based psychotherapies for children and adolescents.* New York: Guilford Press.
Keller, M. B., McCullough, J. P., Klein, D. N., Arnow, B., Dunner, D. L., Gelenberg, A. J., et al. (2000). A comparison of nefazodone, the cognitive behavioral-analysis system of psychotherapy, and their combination for the treatment of chronic depression. *New England Journal of Medicine, 342,* 1462–1470.
Kenardy, J. A., Dow, M. G. T., Johnston, D. W., Newman, M. G., Thomson, A., & Taylor, C. B. (2003). A comparison of delivery methods of cognitive–behavioral therapy for panic disorder: An international multicenter trial. *Journal of Consulting and Clinical Psychology, 71,* 1068–1075.
Klein, D. N., Schwartz, J. E., Santiago, N. J., Vivian, D., Vocisano, C., Castonguay, L. G., et al. (2003). Therapeutic alliance in depression treatment: Controlling for prior change and patient characteristics. *Journal of Consulting and Clinical Psychology, 71,* 997–1006.
Lincoln, T. M., Rief, W., Hahlweg, K., Frank, M., von Witzleben, I., Schroeder, B., et al. (2003). Effectiveness of an empirically supported treatment for social phobia in the field. *Behaviour Research and Therapy, 41,* 1251–1269.
Luborsky, L., Rosenthal, R., Diguer, L., Andrusyna, T. P., Berman, J. S., Levitt, J. T., et al. (2002). The dodo bird verdict is alive and well—Mostly. *Clinical Psychology: Science and Practice*, *9,* 2–12.
Manson, J. E., Hsia, J., Johnson, K. C., Rossouw, J. E., Assaf, A. R., Lasser, N. L., et al., for the Women's Health Initiative Investigators. (2003). Estrogen plus progestin and the risk of coronary heart disease. *New England Journal of Medicine, 349*, 523–534.
Merrill, K. A., Tolbert, V. E., & Wade, W. A. (2003). Effectiveness of cognitive therapy for depression in a community mental health center: A benchmarking study. *Journal of Consulting and Clinical Psychology, 71,* 404–409.
Miller, N. E., & Magruder, K. M. (1999). *Cost-effectiveness of psychotherapy: A guide for practitioners, researchers, and policymakers.* London: Oxford University Press.
Miller, W. R., & Rollnick, S. (2002). *Motivational interviewing* (2nd ed.). Guilford Press.
Miranda, J., Chung, J. Y., Green, B. L., Krupnick, J., Siddique, J., Revicki, D. A., et al. (2003). Treating depression in predominantly low-income young minority women: A randomized controlled trial. *Journal of the American Medical Association, 290,* 57–65.
Mitchell, J. E., Pyle, R. L., Eckert, E. D., Hatsukami, D., Pomeroy, C., & Zimmerman, R. (1990). A comparison study of antidepressants and structured intensive group psychotherapy in the treatment of bulimia nervosa. *Archives of General Psychiatry, 47,* 149–157.
Morin, C. M., Colecchi, C., Stone, J., Sood, R., & Brink, D. (1999). Behavioral and pharmacological therapies for late-life insomnia: A randomized controlled trial. *Journal of the American Medical Association, 281,* 991–999.
Moseley, J. B., O'Malley, K., Petersen, N. J., Menke, T. J., Brody, B. A., Kuykendall, D. H., et al. (2002). A controlled trial of arthroscopic surgery for osteoarthritis of the knee. *New England Journal of Medicine, 347,* 81–88.
Nathan, P. E., & Gorman, J. M. (1998). *A guide to treatments that work.* London: Oxford University Press.
Nathan, P. E., & Gorman, J. M. (2002). Efficacy, effectiveness, and the clinical utility of psychotherapy research. In P. E. Nathan & J. M. Gorman (Eds.), *A guide to treatments that work* (2nd ed., pp. 643–654). New York: Oxford University Press.
National Institute on Drug Abuse. (2004). *Clinical trials network.* Retrieved March 10, 2004, from the NIDA Web site: www.nida.nih.gov/ctn
Norcross, J. C. (2002). Empirically supported therapy relationships. In J. C. Norcross (Ed.), *Psychotherapy relationships that work: Therapist contributions and responsiveness to patients* (pp. 3–16). London: Oxford University Press.
Norcross, J. C., Santrock, J. W., Campbell, L. F., Smith, T. P., Sommer, R., & Zuckerman, E. L. (2003). *Authoritative guide to self-help resources in mental health* (Rev. ed.). New York: Guilford Press.
Olfson, M., Marcus, S. C., Druss, B., Elinson, L., Tanielian, T., & Pincus, H. A. (2002). National trends in the outpatient treatment of depression. *Journal of the American Medical Association, 287,* 203–209.
Paykel, E. S., Scott, J., Teasdale, J. D., Johnson, A. L., Garland, A., Moore, R., et al. (1999). Prevention of relapse in residual depression by cognitive therapy: A controlled trial. *Archives of General Psychiatry, 56,* 829–835.
President's New Freedom Commission on Mental Health. (2003). *Achieving the promise: Transforming mental health care in America* (Final report; DHHS Pub. No. SMA-03–3832). Rockville, MD: Department of Health and Human Services. Retrieved from www.mentalhealthcommission.gov/reports/FinalReport/toc.html
Richmond, J. B., & Fien, R. (2003, September 26). Health insurance in the USA. *Science, 301,* 1813.
Rifkin, W. (2002). Comment on Changes in the treatment of depression in the United States: 1987–1997. *Journal of the American Medical Association, 287,* 1803–1804.
Rossouw, J. E., Anderson, G. L., Prentice, R. L., LaCroix, A. Z., Kooperberg, C., Stefanick, M. L., et al., for the Writing Group for the Women's Health Initiative Investigators. (2002). Risks and benefits of estrogen plus progestin in healthy postmenopausal women: Principal results from the Women's Health Initiative randomized control trial. *Journal of the American Medical Association, 288,* 321–333.
Roth, A., & Fonagy, P. (1996). *What works for whom? A critical review of psychotherapy research*. New York: Guilford Press.
Roth, A., & Fonagy, P. (2004). *What works for whom? A critical review of psychotherapy research* (2nd ed.). New York: Guilford Press.
Sackett, D. L., Straus, S. E., Richardson, W. S., Rosenberg, W., & Haynes, R. B. (2000). *Evidence-based medicine: How to practice and teach EBM.* New York: Churchill Livingstone.
Shadish, W. R., Matt, G. E., Navarro, A. M., Siegle, G., Crits-Christoph, P., Hazelrigg, M. D., et al. (1997). Evidence that therapy works in clinically representative conditions. *Journal of Consulting and Clinical Psychology, 65,* 355–365.
Smith, T. W., Kendall, P. C., & Keefe, F. J. (2002). Behavioral medicine

and clinical health psychology [Special Issue]. *Journal of Abnormal Psychology, 70*(3).

Stirman, S. W., DeRubeis, R. J., Crits-Christoph, P., & Brody, P. E. (2003). Are samples in randomized controlled trials of psychotherapy representative of community outpatients? A new methodology and initial findings. *Journal of Consulting and Clinical Psychology, 71,* 963–972.

Stuart, G. L., Treat, T. A., & Wade, W. A. (2000). Effectiveness of an empirically based treatment for panic disorder delivered in a service clinic setting: 1-year follow-up. *Journal of Consulting and Clinical Psychology, 68,* 506–512.

Substance Abuse and Mental Health Services Administration (2003). *SAMHSA agency overview*. Retrieved January 9, 2004, from www .samhsa.gov/about/about.html

Teasdale, J. D., Segal, Z. V., Williams, J. M. G., Ridgeway, V. A., Soulsby, J. M., & Lau, M. A. (2000). Prevention of relapse/recurrence in major depression by mindfulness-based cognitive therapy. *Journal of Consulting and Clinical Psychology, 68,* 615–623.

Teri, L., Gibbons, L. E., McCurry, S. M., Logsdon, R. G., Buchner, D. M., Barlow, W. E., et al. (2003). Exercise plus behavioral management in patients with Alzheimer Disease: A randomized controlled trial. *Journal of the American Medical Association, 290,* 2015—2022.

Wade, W. A., Treat, T. A., & Stuart, G. L. (1998). Transporting an empirically supported treatment for panic disorder to a service clinic setting: A benchmarking strategy. *Journal of Consulting and Clinical Psychology, 66,* 231–239.

Westen, D., & Morrison, K. (2001). A multidimensional meta-analysis of treatments for depression, panic, and generalized anxiety disorder: An empirical examination of the status of empirically supported therapies. *Journal of Consulting and Clinical Psychology, 69,* 875–899.

Westen, D., Novotny, C. M., & Thompson-Brenner, H. (2004). The empirical status of empirically supported psychotherapies: Assumptions, findings, and reporting in controlled clinical trials. *Psychological Bulletin, 130,* 631–663.

Wilson, G. T., & Fairburn, C. G. (2002). Treatments for eating disorders. In P. E. Nathan & J. M. Gorman (Eds.), *A guide to treatments that work* (2nd ed., pp. 559–592). New York: Oxford University Press.

Zoellner, L. A., Feeny, N. C., Cochran, B., & Pruitt, L. (2003). Treatment choice for PTSD. *Behaviour Research and Therapy, 41,* 879–886.