Psychodynamic Psychotherapy and Research Evidence: Bambi Survives Godzilla?

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Psychodynamic Psychotherapy and Research Evidence

Bambi Survives Godzilla?

Richard M. Glass, MD

In a now classic 1982 article,[1] Parloff surveyed the results of psychotherapy research evidence and its relevance for policy makers and treatment reimbursement decisions, characterizing that encounter as "Bambi meets Godzilla." He concluded that although research evidence in psychotherapy outcome at that time was "extensive and positive," it was not responsive to the policy makers' central question, "What kinds of psychotherapy are most effective for what kinds of problems?"

Since that time, there has been a substantial increase in evidence for the efficacy of specific forms of psychotherapy for specific psychiatric disorders.[2,3] In particular, the development of cognitive behavioral therapy (CBT),[4] a usually short-term psychotherapy focused on identifying and correcting cognitive patterns that underlie emotional and behavioral symptoms; interpersonal psychotherapy[5] (IPT), a time-limited individual therapy developed for treatment of major depression; and dialectical behavioral therapy[6] (DBT), a focused therapy developed for treatment of borderline personality disorder, have been characterized by empirical testing for efficacy in controlled trials. In recognition of this, Beck, the main developer of CBT, was honored with the Lasker Award for Medical Research in 2006.[7]

However, concern has often been expressed about evidence for the efficacy of long-term psychodynamic (also called psychoanalytic) psychotherapy (LTPP),[8] a treatment with origins in uncontrolled clinical experience and with subsequent developments often influenced by theories rather than empirical testing. The former is certainly not uncommon in medicine, but the latter has been a matter of concern, particularly in the era of evidence-based medicine. In this issue of *JAMA*, Leichsenring and Rabung[9] present the results of a meta-analysis that speaks directly to this concern.

The continuing interest in and attraction of psychodynamic psychotherapy are likely due to the considerable intuitive appeal of the underlying concept that facilitated self-understanding can lead to improvement of mental disorders. Despite that appeal, the issue of empirical demonstration of efficacy is of central importance to clinicians, patients, and policy makers; thus, Leichsenring and Rabung have performed a valuable service by collating and analyzing the available evidence on that issue. As these authors point out, there is evidence and abundant clinical experience indicating that despite the desire for brief, cost-effective interventions, patients with complex mental disorders, which they reasonably define as personality disorders, chronic disorders (duration of at least a year), and patients with multiple comorbid disorders, are often unlikely to respond to short-term treatments.

The authors used a definition of psychodynamic psychotherapy from Gunderson and Gabbard[10(p685)]: "A therapy that involves careful attention to the therapist-patient interaction, with carefully timed interpretation of transference and resistance embedded in a sophisticated appreciation of the therapist's contribution to the two-person field." Identification and interpretation of transference and resistance are distinctive features of psychoanalytic psychotherapies that are commonly misunderstood. Transference is defined as, "those perceptions of, and responses to, a person in the here and now that more appropriately reflect past feelings about,

See also p 1551.

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or responses to, important people earlier in one's life, especially parents and siblings."[11(p1854)] Transference occurs regularly in everyday life outside a psychotherapy setting. A strong reaction to a person or situation in which the intensity of the emotion is more than what would be attributable to the current situation may be a clue to the presence of transference. Resistance is the "patient's attempt to protect herself or himself by avoiding the anticipated emotional discomfort that accompanies the emergence of conflictual; dangerous; or painful experiences, feelings, thoughts, memories, needs, and desires."[11(p1854)]

Developing insight about transferences and resistances are essential elements of psychodynamic psychotherapy because their occurrence in the therapy provides a route to recognizing and understanding their sources and, most importantly, their occurrence and influence in the patient's life outside of therapy and the ways they underlie and maintain the patient's symptoms. To be successful, this requires both cognitive and affective experience for the patient during therapy because there is almost always ambivalence about change.[11,12] Both time intensity (typically several sessions per week over the course of several years) and the resulting intensity of the patient's transference to the analyst distinguish psychoanalysis from psychodynamic (psychoanalytic) psychotherapy. Psychodynamic psychotherapy typically involves 1 or 2 sessions per week.

For their literature search, Leichsenring and Rabung included randomized trials and other prospective studies of individual psychodynamic psychotherapy that met the definition cited above, used a prospective design and reliable outcome measures, had a duration of at least 1 year or 50 sessions, and were published between 1960 and May 2008. They included observational studies as well as randomized controlled trials. Their search yielded a total of 23 separate studies published from 1984 to 2008, comprising 11 randomized controlled trials and 12 observational studies that included a total of 1053 patients receiving LTPP.

The issue of comparison or control groups has long been a vexing problem in psychotherapy research.[1] Developing and implementing plausible "placebos" for active psychotherapies has proved to be difficult. In addition, use of an intentionally inactive control treatment may not be ethically defensible, particularly for long-term treatment. Only 8 of the trials in the meta-analysis had the data necessary for comparative analysis of LTPP with other forms of treatment. These comparison groups included different types of active therapy, shorter-term psychodynamic psychotherapy, and psychiatric treatment as usual.

The authors' thorough search methods, including the requirement for reliable outcome measures, and their careful assessments of heterogeneity and lack of evidence for publication bias are strengths of the study. The finding of no significant difference in effect sizes for the observational studies compared with the RCTs is reassuring.

In 7 of the 23 studies, some patients received concomitant psychotropic medications. Use of medication in these studies was based on clinical indications rather than random assignment, an important aspect of the finding that LTPP combined with psychotropic medication resulted in significantly lower effect sizes than LTPP alone. That result led the authors to include only studies of LTPP alone without concomitant medication in estimating the effects of LTPP in specific patient groups. The nonrandom assignment also precludes any conclusion about the effects of combined psychotherapy and drug treatment based on this meta-analysis.

A number of trials have compared drug treatment and psychotherapy, particularly for treatment of depressive and anxiety disorders. Some of these trials have reported a significant difference in outcomes favoring psychotherapy and others favoring medication, but most have not found significant differences between the 2 modalities, with both having better outcomes compared with pill placebo.[13] Interpretation of such trials is complicated by the absence of a psychotherapy placebo condition, because no such condition has been satisfactorily established.

The combination of drug treatment with psychotherapy is a common clinical approach for many psychiatric disorders. Some large trials and meta-analyses have found outcome differences favoring such combined treatment compared with one of those modalities,[13] but the lack of an adequate placebo psychotherapy condition and the associated problem of patients not being blinded to the active psychotherapy condition again complicate interpretation. Having outcome raters who are masked to treatment conditions, and even assessing whether the blind was maintained for the raters by having them guess the treatment assignments, does not completely resolve this problem. It is the patient-reported outcomes that are assessed by blinded raters and those outcomes, both objective and subjective, that can be influenced by treatment expectation effects associated with unblinded treatment. Because of the difficulties in blinding outcome ratings in psychotherapy trials, Liechsenring and Rabung modified the Jadad scale[14] to assess study quality by rating randomization and accounting for withdrawals and dropouts as usual but giving a score of 1 point if outcome was assessed by blinded raters or by reliable self-report instruments. With this modification, there were no significant correlations between study quality ratings and outcome effect sizes.

In addition to evidence for efficacy, another likely reason for the high frequency of combined drug and psychotherapeutic treatments for mental disorders in clinical practice is the notion that both biological and psychological aspects of the disorder are thereby separately addressed by biological (drug) and psychological (psychotherapy) treatments. However, there is increasing evidence from studies of the 2-way relationship between brain structure and function on the one hand and emotion and behavior on the other

indicating that such a notion of separate biological and psychological treatment effects is simplistic and inaccurate. The concept that drugs that affect brain function can influence emotions and behavior is certainly well known and apparent. In addition, recent research in brain imaging, molecular biology, and neurogenetics has shown that psychotherapy changes brain function and structure.[11,15] Such studies have shown that psychotherapy affects regional cerebral blood flow, neurotransmitter metabolism, gene expression, and persistent modifications in synaptic plasticity.[11] Whether such findings might eventually lead to improved ways to assess psychotherapies or drug therapies, or to match particular psychotherapies or combination therapies to fundamental patient needs is an exciting but uncertain possibility.[15]

For now, the question is: Does this new meta-analysis mean that LTPP has survived the Godzilla of the demand for empirical demonstration of its efficacy? The answer is a qualified yes. The meta-analysis was carefully performed and yielded a within-group effect size of 0.96 (95% confidence interval [CI], 0.87-1.05) for pretreatment-posttreatment overall outcomes, which would be considered a large effect. For the 8 studies that included a comparison group, the overall between-group effect size was 1.8 (95% CI, 0.70-3.4). However, as is true of any meta-analysis, the conclusions depend on the quality and limitations of the individual studies that provide the data for collation. The qualified conclusion results from the rather small number of studies and particularly the small number of patients: a total of 1053 treated with LTPP and a total of only 257 in the comparison groups. The problem of the adequacy of accounting for placebo effects also persists.

Clinicians who provide LTTP will find that the overall results of the meta-analysis comport with their clinical experience. One specific result that does not fit clinical experience is the finding that outcomes were not correlated with years of therapist experience. This was likely related to a limited range of experience on the part of the therapists in the trials. An important development in psychotherapy research has been the development and use of therapy manuals that specify techniques that are to be used in the therapy and others not to be used in order to standardize the treatment and provide confidence about the therapy process leading to the measured outcomes. In some trials, audio or video recordings are taken to verify that the treatment manual is followed. Such "manualized" treatment can certainly increase conformity with what is done but cannot necessarily eliminate variability in how well it is done, which is determined by training, experience, and natural ability. There is an art, as well as a science, of doing psychotherapy[16] that can be difficult to measure systematically but also occurs in other clinical areas and is often recognized by knowledgeable colleagues. One area in which this is clearly the case is surgery, for which skill in performing a procedure, as well as the choice of procedure, has powerful effects leading to the relationship between surgeon volume (as a measure of experience) and the outcome of surgical interventions.[17]

Even with the necessary qualifications, the meta-analysis by Leichsenring and Rabung in this issue of *JAMA* provides evidence about the effectiveness of long-term dynamic psychotherapy for patients with complex mental disorders who often do not respond adequately to short-term interventions. It is ironic and disturbing that this occurs at a time when provision of psychotherapy by psychiatrists in the United States is declining significantly.[18] The reasons for this merit careful evaluation. To some extent this may reflect the cost-efficacy of treatments for some mental disorders with medications and brief supportive visits. However, this trend appears to be strongly related to financial incentives and other pressures to minimize costs. Is that what is really wanted for patients with disabling disorders that could respond to more intensive treatment?

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