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# **An empirical basis for case assignment**

**Kenneth I. Howard, Zoran Martinovich,  
Wolfgang Lutz & Wolfgang Hannöver**

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All psychotherapy begins with some form of referral. Usually, a prospective patient contacts a health professional and that professional suggests a suitable therapist. This judgment of suitability, however, is seldom based on any evidence that the particular therapist is or would be more effective (i.e., information about the treatment course or outcome of previous patients). Instead, referrals tend to be made on the basis of intuition and some informal appraisal of the therapist's professional competence (standing). Since psychotherapy entails a substantial commitment of time and energy, it would seem important that we develop some way of providing evidence that might help the referring professional in determining the best therapist for the particular patient - that is, the therapist who is likely to provide the most efficient and effective treatment. It also would be important to provide therapists with this evidence to enable them to compare this information with their own experience in order to decide whether or not they will be able to provide the most efficient and effective treatment for any given patient.

But how could we develop such evidence? The first problem would be in agreeing on some criteria for successful treatment outcome. Next, we would have to develop some method for assessing the effectiveness and efficiency of treatments. Finally, we would have to develop a system for evaluating a therapist's past performance, particularly with specific kinds of patients.

## **Successful Treatment Outcome**

Lambert and his colleagues found that over a ten-year period more than 1400 different outcome measures had been used in psychotherapy research; only a few had been used in more than 10 studies (e.g. Lambert & Hill, 1994). In 1995 the American Psychological Association and the U.S. National Institute of Mental Health sponsored a conference of psychotherapy researchers to attempt to reach some consensus on the evaluative criteria for psychotherapy (and to suggest a core battery of measures). Although this conference did not result in a consensus regarding measures, there was some general consensus that what should be appraised in the determination of treatment outcome were: (a) wellbeing; (b) psychiatric symptoms; and, (c) role functioning (Strupp, Horowitz, & Lambert, 1997).

Over the past several years, we have developed conceptions and measures of these constructs - subjective well-being, symptoms, life functioning - and have been gathering data on the response of these criteria to treatment. We have also developed a Mental Health Index which is based on the combination of these assessments. Moreover, we have proposed a "phase-theory" of psychotherapeutic outcome and have empirically tested that theory (Howard, Lueger, Maling, & Martinovich, 1993).

Based on this work, we propose that treatment outcome can be assessed through the comparison of a patient's scores on these criteria at different times in therapy in relation to the patient's initial scores.

## **Assessing Effectiveness and Efficiency**

Another consideration in the assessment of outcome is the patient's potential responsiveness to treatment, independent of the particular therapist. Some patients require more intensive and extended treatment than do others, some patients may've problems that respond quite quickly, and some

patients may be unsuitable for psychotherapy, altogether, etc. This (case-mix) must be taken into account before therapists can be fairly compared.

- In our previous work we have demonstrated a lawful dose-response relationship for psychotherapy (Howard, Kopta, Krause, & Orlinsky, 1986). The "dosage model" posits that a patient's response to therapy will be a function of the log of the number of treatment sessions. Using this model, we were able to model the responses of a panel of about 1000 patients, and to determine a slope (course of recovery) for each case. We next used Hierarchical Linear Modeling to relate the patients' initial characteristics (independent variables - demographic and clinical) to these slopes dependent variables) (Lutz, Martinovich, & Howard, in press). In this way we are able to "profile" each patient (see, for examples, Howard, Moras, Brill, Martinovich, & Lutz, 1996). Next, on the basis of each patient's initial characteristics, we calculated an expected course of response to treatment for that patient. Using a much larger sample, we then compared the actual course of treatment to this expected course, and for each case, we calculated the algebraic average deviation from expected course. (A positive average means that the treatment went better than expected; a negative average means that the treatment went worse than expected.)

### Evaluating Therapist Performance

Using these average deviations for each completed case, we are able to average across the patients in a therapist's case load to obtain a summary appraisal (single score) of the effectiveness and efficiency of that therapist.

One approach to constructing "An Empirical Basis for Case Assignment" would be to simply refer patients to the best therapist, overall. The question is, "Are some therapists just better than others, regardless of case-mix?" The research evidence that we have suggests that the answer is "No." We find little difference among the efficiency and effectiveness of various therapists. It seems that professional training and experience lead to the development of therapists who are more or less equally competent across their diverse case loads -- indeed, there is tremendous variation in outcomes within a therapist's case load.

Does this mean that we are unable to construct "An Empirical Basis for Case Assignment?" Again, the answer is, "No." We can provide such an empirical basis, but it has to be based on matching specific therapists to specific patients. For example, we have found that some therapists are much better than others with severe cases, while others are better (more effective) with less severe cases.

### Some Case Examples

We desegregated the level of data analyses further and looked into the caseload of different therapists in the set. The goal was to explore their performance as well as to provide additional information for supervision and training. Therefore we analyzed each therapist's case-load and explored every therapists' performances in relation to specific patient problem areas.

The following case examples of different therapists demonstrate the usefulness of this potential feedback method for training and supervision purposes:

**Therapist A** had 40 cases. Half did better than expected, half did worse than expected.

1. All six patients who had very low initial concerns with "Intimate Relationships" did better.
2. Of the 34 patients who were concerned with Intimacy, the five that had very high concerns in this area all did less well than expected.
3. Of the 29 patients who were moderately concerned with Intimacy, but did not have very high concerns in this area, eleven of the fifteen who were functioning well in this area did better than expected.
4. Of the 14 patients who were moderately concerned with Intimacy, but did not have very high

concerns in this area, and were functioning poorly in this area, the nine that had a GAS above 42 did better than expected. So, Therapist A should be assigned patients with very low concern with problems of intimacy, and should not be assigned cases with very high concern in this area. If a patient with moderate intimacy concerns has to be assigned to this therapist, it should be a patient who is functioning well in this area or one with a GAS above 42.

**Therapist B** had 53 cases. 28 did better than expected, 25 did worse than expected.

1. Of the 21 patients who rated being in therapy of very high importance 17 did better than expected.
  2. Of the 32 patients who did not rate being in therapy of very high importance, all of the 16 patients who were functioning poorly (self-report) did less well than expected.
  3. Of the 32 patients who did not rate being in therapy of very high importance, of the 16 patients who were not functioning poorly (self-report), all 8 of the married or single patients did better than expected.
- So, Therapist B should be assigned patients who feel that therapy is essential to them (81% will do better than expected) or patients with less involvement who are functioning well and not divorced, widowed, or separated (100% will do better than expected) and should not be assigned cases with less involvement in therapy and poor life functioning (100% will do less well than expected).

**Therapist C** had 43 cases. 24 did better than expected, 19 did worse than expected.

1. Of the 7 patients with low scores on the Bipolar symptom subscale, all did less well than expected.
2. Of the 36 patients who had some bipolar symptoms, the 6 that were rated by the therapist as high on self-management (functioning) all did better than expected.
3. Of the 30 patients who had some bipolar symptoms and were rated by the therapist as not high on self-management (functioning), 10 of the 12 patients with low concerns with intimate relationships did better than expected.
4. Of the 18 patients who had some bipolar symptoms and were rated by the therapist as not high on self-management (functioning) who had high concerns with intimate relationships, all 5 of the patients with low family functioning did less well than expected.

So, Therapist C should be assigned patients who have some bipolar symptoms, and are functioning well with regard to self-management (100% will do better than expected) or who are not functioning high in this area, but are not concerned with intimate relationships (83% will do better than expected). This therapist should not be assigned cases with some bipolar symptoms who are not functioning well in the family area (100% will do less well than expected).

**Therapist D** had 49 cases. 30 did better than expected, 19 did worse than expected.

1. Of the 10 with obsessive-compulsive symptoms, all did better than expected.
2. Of the 39 patients who had low obsessive-compulsive symptoms, the 6 that were rated by the therapist as low in social functioning all did better than expected.
3. Of the 33 patients who had low obsessive-compulsive symptoms and were not functioning poorly socially, those that presented with low concern with self-management all did less well than expected.
4. Of the 25 patients who had low obsessive-compulsive symptoms and were not functioning poorly socially and presented with self-management concerns, those who were functioning well with regard to health and grooming did less better than expected.

So, Therapist D should be assigned patients who have some obsessive-compulsive symptoms (100% will do better than expected), and are functioning well with regard to self-management (100% will do better than expected) or who have few obsessive-compulsive symptoms and are not functioning well socially (100% will do better than expected). This therapist should not be assigned cases with low obsessive-compulsive symptoms who are functioning well in the social area and are not concerned with self-management (100% will do less well than expected).

## Conclusion

In addition to guiding case assignment, this kind of information regarding therapist performance can be used in supervision to guide the further development of the therapist. With relevant feedback, therapists can pursue experiences that will make them more effective with a wider variety of patients.

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