Factors Associated With Treatment Continuation: Implications for the Treatment of Drug Dependence

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INTRODUCTION

It is well known and problematic that a significant number of people who suffer from a diagnosable disorder do not seek out and receive the mental health services they need (e.g., Vessey and Howard 1993). Even among those who do seek treatment, many do not accept the recommended regimen. For example, the majority of people who initiate psychotherapy terminate relatively early in the process (Craig and Huffine 1976; Garfield 1994; Sue et al. 1976). In Garfield's (1994) review, the median duration of treatment was between five and eight sessions in studies where patients had received at least one session of psychotherapy.

For some time, premature termination has been considered a major problem (Straker 1968), one that occurs with all forms of treatment. Considerable time and resources are spent in the attempt to engage patients in the psychotherapeutic venture (Garfield 1986; Howard et al. 1986) and potential benefits are not realized (Schafer 1973).

Researchers have responded to this ubiquitous problem by examining such patient factors as demographic characteristics, pretherapy training, psychological test scores, and expectancies concerning therapy in efforts to find correlates of continuation in treatment (see Garfield 1994 for a review). Time parameters for therapy have also been examined. For example, in one study, time-limited therapy was found to be associated with fewer dropouts than either time-unlimited or brief treatment models (Sledge et al. 1990). From numerous efforts to date, only small percen-tages of variance have been accounted for in premature termination or continuation in psychotherapy.

In summarizing the literature on patient characteristics, Garfield (1994) has concluded that variables pertaining to social class (low social class was related to premature termination) were most consistently, but not invariably, implicated by empirical evidence. Education showed some relationship to therapy duration, while age, sex, and diagnosis seem to have no relationship

to treatment compliance. Pretherapy training for patients was inconsistently associated with premature termination. Psychological test variables were also not successfully predictive of continuation; however, three studies have documented that compliance with a research protocol (e.g., completion of pretherapy questionnaires) predicted continuation. Finally, the degree of congruence between patient's and therapist's expectations about therapy duration has shown some evidence of playing a role in patient retention, but this evidence is not substantial.

Investigators and clinicians alike have been interested in ascertaining which patient, therapist, or dyadic interaction variables influence contin-uation in psychotherapy. Many studies have attempted to address this issue and the findings (summarized above) have been documented in several reviews (e.g., Baekeland and Lundwall 1975; Garfield 1994; Reder and Tyson 1980; Wierzbicki and Pekarik 1993). Few consistently replicable results have emerged that point to any specific characteristic that would facilitate differentiation between those who stay in psycho-therapy and dropouts to any significant degree. Wierzbicki and Pekarik (1993, p. 194) offered the following summary of this situation: "...[T]he types of simple variables typically investigated in dropout research are not strongly associated with dropout; hence, future research should use more complex psychological variables." This clearly highlights the importance of the systematic identification and subsequent examination of complex psychosocial input and process variables via methods that extend beyond the analysis of single, simple patient characteristics as they relate to therapy engagement and retention.

A MODEL OF RELEVANT PSYCHOSOCIAL VARIABLES

Based on extensive literature reviews (Howard and Orlinsky 1972; Orlinsky and Howard 1978, 1986*a*), a conceptual framework was developed that describes patient characteristics that might influence use of individual psychotherapy. This model posits four categories of psychosocial variables:

- psychopathology (presenting symptoms or syndromes) refers to manifest psychiatric symptomatology; it is concerned with the types and intensity of distressing experiences and behaviors as well as functional impairment;

- pathology proneness (psychological vulnerabilities or predis-positions) entails the concept of psychological vulnerability or predisposition to the development of psychopathology; it may stem from biological, personal, or situational factors. People who are

pathology prone have relatively pervasive handicaps or deficits that make it difficult for them to cope with the challenges and stresses of a wide variety of life situations;

- environmental stress involves the presence and frequency of negative or problematic life experiences; and

- feasibility and attitudes toward treatment (patient motivation, psychological resources, and related characteristics) refers to practical barriers (e.g., schedule, fees), psychological resources (e.g., ability to delay gratification), and attitudes (e.g., confidence that treatment will help) that characterize a patient's approach to the therapy enterprise.

Psychopathology tends to arise in people as a function of the influence of environmental stress on pathology proneness. Pathology proneness is a proximal contributor to psychopathology, while environmental stress is a more distal contributor. It is important, therefore, to consider these factors when examining patient characteristics predictive of psychotherapy continuation. Feasibility and attitudes toward treatment are also important as they are relatively proximal contributors to treatment utilization.

THERAPEUTIC PROCESS: THE GENERIC MODEL OF PSYCHOTHERAPY

Theory and research involving psychotherapy process has suffered generally from the lack of more universal conceptualizations of therapy to guide the formulation of ideas and studies. This is certainly one factor contributing to the meager amount of empirical research that examines process in relation to continuation in psychotherapy. The generic model of psychotherapy (Orlinsky et al. 1994; Orlinsky and Howard 1986*a*, 1987) provides a transtheoretical conceptual framework that describes the relationships among contexts, processes, and outcomes common to all treatments.

Five therapeutic processes are identified in the generic model— therapeutic contract (e.g., keeping appointments, paying fees, cooperative participation), therapeutic operations (intervention techniques and procedures), therapeutic bond (empathy, affirmation, collaborative alliance), therapeutic openness (psychological availability and lack of defensive-ness), and therapeutic realizations (e.g., in-session impacts such as unburdening, encouragement, and insight). Subsequent empirical work has highlighted the importance of these processes as well as having documented the model's validity (Ambühl 1991, 1993; Ambühl and Grawe 1988; Grawe 1989; Kolden 1991, 1993; Kolden and Howard 1992; Saunders et al. 1989).
Psychotherapy process variables constitute another important category of

variables to examine in the pursuit of characteristics predictive of psychotherapy continuation.

ENGAGEMENT, RETENTION, AND DOSAGE

Most research related to continuation in psychosocial interventions has focused on dropout or attrition. The current analyses focused on the process of engagement and retention in psychotherapy. Patient engage-ment in treatment was defined as a sum of the patient's responses to six multiple choice questions, some filled out by patients before treatment, others after the first session. Thus, this concept captures the personal perceptions of patients who attended at least one session of psycho-therapy. (See appendix A for a list of these questions.) Retention in psychotherapy was operationally defined as remaining in treatment for at least three sessions.

A third focus of this study involved the examination of process variables in relation to continuation in therapy. Continuation was conceptualized according to the likelihood of having been exposed to a dose of therapy (dosage is a construct involving a unit of analysis operationalized according to the probability of bringing about an impact from a particular intervention (e.g., pesticide, drug, session of psychotherapy)). Howard and associates (1986) estimated that six to eight sessions were required for a psychotherapy patient to have a 50 percent chance of improving. Thus, dosage was conceptualized dichotomously as remaining in treatment for one to five sessions versus six or more sessions; a patient continuing in therapy for six or more sessions has a reasonable probability of having been exposed to a dose sufficient to bring about clinical improvement.

METHODS AND PROCEDURES

A large, systematic, naturalistic study of psychotherapy utilization provided the database for this study.

Patients

Psychotherapy outpatients (N = 450) who sought individual psycho-therapy at Northwestern University's Institute of Psychiatry participated in this study. Participation was voluntary, informed consent was obtained, and confidentiality of responses was ensured.

The number of sessions attended by individual patients ranged from zero to more than 300; the median number of sessions was about 15. The typical

patient was single, white, female, between the ages of 22 and 35, and had completed at least some college. In general, patients were self-referred for a variety of mild to moderate disorders. In terms of demographic characteristics, this patient sample is reasonably representative of the psychotherapy outpatient population (cf., Taube et al. 1984; Vessey and Howard 1993).

Therapists

Seventy-seven therapists participated in collecting data on which the current analyses were based. The majority were in some stage of training—psychology practicum students, psychology interns, psychiatry residents—although most had had considerable additional experience. Forty-seven percent of the therapists were psychiatrists, 28 percent were social workers, and 25 percent were psychologists. Eighty-six percent were between 20 and 39 years of age, 51 percent were female, and 45 percent were married.

The dominant theoretical orientation of these therapists was psychodynamic; supervisors typically espoused this approach, case presentations followed this model, and case conceptualizations were usually made from this perspective. Thus, the type of psychotherapy represented in this study can be generally described as dynamic. No treatment manuals were followed explicitly.

Instruments

Independent variables included sociodemographic characteristics and a battery of patient-reported and therapist-reported scales measuring various aspects of psychopathology, pathology proneness, environmental stress, and feasibility and attitudes toward treatment. Patient and therapist ratings of psychotherapy process variables were also examined.

Psychopathology. The extent of psychopathology was measured using patient self-report measures including the Symptom Checklist (40-item version adapted from Derogatis 1977; internal consistency = 0.94), Current Life Functioning (23-item measure; Howard et al. 1992; internal consistency = 0.93), Subjective Well-Being (4-item measure; Howard et al. 1992; internal consistency = 0.79), and a brief version of the Inventory of Interpersonal Problems (IIP; 27-item version adapted from Horowitz et al. 1988; internal consistency = 0.88). The IIP has six subscales: hard to be assertive (internal consistency = 0.80), hard to be sociable (internal consistency = 0.70), hard to be submissive (internal consistency = 0.47), hard to be intimate (internal consistency = 0.63), too responsible (inter- nal consistency = 0.62), and too controlling (internal consistency = 0.68).

Therapist-reported measures included the Global Assessment Scale (Endicott et al. 1976; test-retest = 0.68 in current sample; test-retest ranges from 0.66 to 0.92 according to Dworkin et al. 1990), Level of Functioning (Carter and Newman 1980; test-retest = 0.60), and the Life Functioning Scales (Howard et. al. 1992; internal consistency = 0.86). The Life Functioning Scales consist of six subscales: family functioning (test-retest = 0.60), health and grooming (test-retest = 0.70), intimate relationships (test-retest = 0.64), self-management (test-retest = 0.58), social relationships (test-retest = 0.68), and work, school, household functioning (test-retest = 0.70).

Pathology Proneness. Patient-reported measures of pathology prone- ness included a brief version the Dysfunctional Attitudes Scale (10-item version adapted from Weissman 1979; internal consistency = 0.81), Interpersonal Attitudes Scale (10-item measure; Bankoff and Howard 1988; internal consistency = 0.70), Self-Esteem (Rosenberg 1979; inter- nal consistency = 0.89), and the Coping Strategies Inventory (CPI; 40-item measure of coping resources developed by Tobin et al. 1989; internal consistency = 0.91). The CPI has four subscales: emotion-focused disengagement (internal consistency = 0.86), emotion-focused engage-ment (internal consistency = 0.90), problem-focused disengagement (internal consistency = 0.79), and problem-focused engagement (internal consistency = 0.85).

Therapist-reported measures included scales from the Personality Assess-ment Form (PAF; Pilkonis and Frank 1988). Perry and associates (1991) developed and psychometrically evaluated three subscales based on a factor analysis of the PAF: aggressive (internal consistency = 0.77), anxious (internal consistency = 0.73), and eccentric (internal consistency = 0.62).

Environmental Stress. Patient-reported measures related to life stress included an adaptation of the Life Stress Inventory (61-item measure developed by Holmes and Rahe 1967) and Bankoff's Social Support Scales (Bankoff 1985). The Social Support Scales contain six subscales: nurturance support (internal consistency = 0.85), patient role support (internal consistency = 0.82), strength of network ties (internal consistency = 0.82), pressure (from others) to seek treatment (internal consistency = 0.57), density of friendship network (internal consistency = 0.27), and density of overall network (internal consistency = 0.79).

The "Diagnostic and Statistical Manual of Mental Disorders," 3d ed. revised Axis IV rating, Severity of Psychosocial Stressors (American Psychiatric Association 1987), provided a therapist rating of life stress.

Feasibility and Attitudes Toward Treatment. Patient-reported measures of feasibility and attitudes toward treatment included several selected items and ratings from Saunder's Process of Seeking Therapy Questionnaire (Saunders 1988).

Therapist-reported measures included five scales from the Therapeutic Assets Questionnaire (Daskovsky 1988): Delay of gratification (internal consistency = 0.76), willingness to enter treatment (internal consistency = 0.77), degree of distress (internal consistency = 0.61), psychological mindedness (internal consistency = 0.86), and level of object relations (internal consistency = 0.81).

Psychotherapy Process. The patient version of the Therapy Session Report (TSR) (see Orlinsky and Howard 1986*b* for a review of the development and utilization of this instrument) provided the measures for three of the process variables used in this study—therapeutic bond, therapeutic openness, and therapeutic realizations. The TSR is a 145-item structured-response instrument that assesses experiences patients have during a session of individual psychotherapy. It is typically administered following a session and usually requires 10 to 15 minutes to complete. This study utilized TSRs obtained from patients after the first session of psychotherapy. The generic model of psychotherapy provided the guiding theoretical framework for the development of the process scales. Internal consis-tency for these scales has been established: 0.62 for therapeutic bond (Saunders et al. 1989), 0.69 for therapeutic openness, and 0.86 for therapeutic realizations (Kolden 1991). In addition, acceptable test-retest reliability has also been demonstrated: 0.81 for therapeutic bond, 0.58 for therapeutic openness, and 0.71 for therapeutic realizations. All scales have been shown to have predictive validity in relationship to termination outcome (Kolden 1988; 1991; Kolden and Howard 1992; Saunders et al. 1989), early change in mental health status (Kolden 1993), and treatment duration (Kolden and Howard 1987).

The Therapeutic Procedures Inventory-Revised (TPI-R) (Orlinsky et al. 1987) is a therapist-rated questionnaire that assesses interventions used in therapy sessions. McNeilly and Howard (1991) examined the internal structure and psychometric properties of the section of the TPI-R address-ing therapeutic operations. Factor analysis suggested three scales: directive/behavioral, psychodynamic/past-focused, and experiential. McNeilly and Howard (1991) reported the internal consistency for these scales: 0.82 for prescriptive, 0.74 for exploratory/past-focused, and 0.63 for exploratory/experiential. They also provided evidence for the external and discriminative validity of these scales.

The TPI-R also contains items addressing aspects of the therapeutic contract (e.g., keeping appointments, paying fees, cooperative partici-pation). The measure of therapeutic contract used in this study assesses this construct over a 1-month period. Internal consistency for this variable has been demonstrated to be only 0.26, a matter to be carefully considered when interpreting findings involving this variable.

Dependent variables included three ways of conceptualizing psycho-therapy continuation—engagement, retention, and dosage. Retention and dosage were derived from therapy-episode duration, as described previously.

Engagement. The engagement scale was conceptually derived and composed of six items. All responses were Likert scaled, with choices ranging from 1 to 5 for all items (except for one item, which had a 4-point range). Based on a sample of 287 patients, Cronbach's alpha for the overall scale was 0.70. Principal components factor analysis showed that 41 percent of item variance was accounted for by a single factor, with loadings ranging from 0.46 to 0.71.

ANALYSES AND RESULTS

Tables 1 to 6 list the percent of variance in engagement and retention explained by individual as well as by each set of patient-rated and therapist-rated psychosocial variables. The indices of retention and engagement appeared to be orthogonal ($r = 0.07$). Since about 50 con-trasts were examined for engagement and retention, respectively, the criterion for statistical significance was set at the 0.001 level. Only two variables met this significance criterion with respect to engagement, while four met this criterion with respect to retention. Moreover, the observed effect sizes for nonsignificant results tended to be small (0 percent to 4 percent of variance explained).

With respect to engagement, patients reporting positive feelings about therapy tended to score higher on the engagement scale, $t(186) = 4.93$, $p < 0.001$. In addition, patients reporting relatively high confidence in a successful outcome were more likely to experience higher levels of engagement, $t(187) = 3.53$, $p < 0.001$.

Multiple regressions were computed for each of the sets of variables shown in tables 1 to 6. For each set, the regression equation was used to calculate a predicted engagement score for each patient. Then the six estimated scores were entered into a multiple regression. The full set accounted for 33.4 percent of the variance in engagement ($p < 0.0001$).

TABLE 1. *Percent of variance in retention and engagement accounted for by demographic variables*.

	Retention (%)	Engagement (%)
Education	0.9	0.0
Employment	1.2	1.4
Marital status	0.6	0.3
Living alone	0.1	0.4
Age	0.0	0.1
Gender	0.1	0.0
R^2	2.7%	2.0%

TABLE 2. *Percent of variance in retention and engagement accounted for by psychopathology.*

	Retention	Engagement
Patient-reported measures		
Symptom checklist	0.1	0.2
Current life functioning	0.2	0.0
Subjective well-being	0.1	0.6
Interpersonal symptoms	0.4	1.5
Hard to be assertive	0.1	2.0
Hard to be sociable	1.2	0.0
Hard to be submissive	0.1	0.0
Hard to be intimate	0.1	3.9
Too responsible	0.5	2.5
Too controlling	0.1	0.0
Therapist-reported measures		
Level of functioning	0.0	0.2
Global assessment scale	0.4	0.1
Life functioning scale	1.0	0.0
Family functioning	0.3	0.4
Health and grooming	0.1	0.0
Intimate relationships	0.0	1.4
Self-management	0.6	3.1
Social relationships	0.8	0.6
Work, school, household	2.6	0.1
R^2	1.2%	4.0%

With respect to treatment retention, patients who continued for three or more sessions of therapy tended to receive higher therapist ratings on delay of gratification ($t(354) = 3.90$, $p < 0.001$) and willingness to enter treatment ($t(360) = 3.31$, $p < 0.001$). They received lower ratings on

TABLE 3. *Percent of variance in retention and engagement accounted for by pathology proneness.*

	Retention	Engagement
Patient-reported measures		
Dysfunctional attitudes scale	0.3	2.0
Interpersonal attitudes scale	0.8	0.2
Self-esteem	0.0	1.4
Coping strategies inventory		
Emotion-focused disengagement	0.0	0.5
Emotion-focused engagement	0.1	3.2
Problem-focused disengagement	0.8	0.1
Problem-focused engagement	3.1	0.4
Therapist-reported measures		
Personality assessment form	0.0	0.2
Aggressive	3.3	4.0
Anxious	0.2	0.0
Eccentric	0.0	0.8
R^2	6.6%	11.9%

TABLE 4. *Percent of variance in retention and engagement accounted for by environmental stress.*

	Retention	Engagement
Patient-reported measures		
Life stress inventory	0.5	1.8
Social support scale		
Nurturance support	0.0	1.3
Patient role support	0.5	1.0
Strength of network ties	0.1	2.7
Pressure to seek treatment	0.8	2.1
Density of friendship network	0.0	0.0
Density of overall network	0.8	0.5
Therapist-reported measures		
Severity of psychosocial stressors	1.0	0.0
R^2	5.1%	10.6%

aggressiveness ($t(335) = -3.38$, $p < 0.001$) and work, school, household functioning ($t(334) = -3.34$, $p < 0.001$).

Again, multiple regressions were computed for each of the sets of variables shown in tables 1 to 6. For each set, the multiple-regression equation was used to calculate a predicted retention score for each patient. Then the six estimated scores were entered into a multiple regression. The full set accounted for 18.7 percent of the variance in retention ($p < 0.0001$).

TABLE 5. *Percent of variance in retention and engagement accounted for by feasibility and attitudes toward treatment.*

	Retention	Engagement
Patient-report measues		
Effort required to begin therapy	1.1	0.1
Prior psychotherapy	0.0	0.1
Confidence in successful outcome	0.0	11.6
Expected treatment duration	0.8	0.9
Feelings about eginning therapy		
Positive		0.1 6.3
Negative	0.4	4.0
Therapist-reported measures		
Therpy assets questionnaire		
Delay of gratification	4.1	0.6
Willingness to enter treatment	3.0	0.0
Degree of distress	0.4	0.1
Psychological mindedness	0.2	0.1
Level of objet relations	0.8	0.1
R^2	9.6%	21.4%

TABLE 6. *Percent of variance in retention and engagement accounted for by the process of seeking therapy.*

	Retention	Engagement
Duration of presenting problem?	0.0	0.0
Have you talked to anyone about it?	0.5	1.0
# of other attempts to solve problem?	0.2	0.2
(1) Realizing the problem existed		
Time until (1)?	0.1	0.3
Others help you identify (1)?	0.0	0.0
Difficulty acknowledging (1)?	0.4	0.0
(2) Thinking that therapy might help		
Time between (1) and (2)?	0.1	0.3
Others help you decide (2)?	0.0	0.0
Difficulty acknowledging (2)?	0.0	2.2
(3) Deciding to seek psychotherapy		
Time between (2) and (3)?	0.1	0.1
Others help you decide (3)?	0.8	0.0
Difficulty with (3)?	0.7	3.4
(4) Calling for an appointment		
Time between (3) and (4)?	0.0	0.1
Self- versus other-referred?	0.4	0.1
Difficulty with (4)?	0.7	3.0
R^2	3.5%	9.9%

Table 7 summarizes the findings of correlational analyses examining the relationship of psychotherapy process to dosage. These results

TABLE 7. *Percent of variance in dosage criterion accounted for by first-session process variables.*

	Dosage criterion
Patient-reported measures	
Therapeutic contract	0.8
Therapeutic bond	0.8
Therapeutic openness	0.0
Therapeutic realizations	0.8
Therapist-reported measures	
Therapeutic interventions	
Prescriptive	1.7
Past-focused	4.8
Experiential	4.8
R^2	13.1%

demonstrated that the likelihood of remaining in therapy six sessions or more was not associated with session one psychotherapy processes to any consequential degree. Frequency of therapist intervention activity in session one appears to be the only significant association with dosage. Frequency of session one exploratory/past-focused and exploratory/expe-riential operations were positively associated with dosage. The full set of process variables accounted for 13.1 percent of the variance in dosage ($p = 0.07$).

DISCUSSION

As in previous work, identifying predictors of treatment compliance has once again proved elusive. A wide range of clinically relevant variables was examined in this study, with a mere few emerging as statistically significant as well as clinically interesting.

It was comforting, but not too surprising, to discover that optimistic feelings about beginning therapy and confidence that therapy would be helpful were positively associated with the process of engagement and participation in the treatment enterprise. Similarly, the capacity to delay gratification, an absence of aggressive personality characteristics, better occupational/vocational functioning, and willingness to be in therapy emerged as correlates of therapy participation beyond two sessions (i.e., retention).

It was hypothesized that the nature of the psychotherapy process would be positively associated with continuation in treatment: reaching the dosage exposure criterion of six sessions. Frequency of session one therapist intervention activity was the only substantial finding to emerge.

The use of exploratory/past-focused and exploratory/experiential techniques was each positively associated with reaching the dosage criterion for continuation. Patients experiencing higher frequencies of these interventions may stay in therapy because of the early active establishment of an exploratory intervention focus. Closer examination of reasons for early therapy discontinuation might further clarify this finding.

These conclusions must be considered in light of limitations inherent in the current work. This was a naturalistic study of dynamic psychotherapy delivered in a training clinic to a relatively diverse group of psychiatric outpatients. The therapy was not manualized. While naturalistic designs maximize generalizability and external validity, limits to generalizability were introduced in this work by the use of a nonmanualized, dynamic therapy in a training clinic. Furthermore, the extent to which these findings generalize to outpatient psychosocial drug treatment is a crucial question in the context of the other chapters in this volume.

Predicting whether a patient will continue in an offered treatment regimen, be it for depression or drug addiction, may be something like predicting the final stopping place of a rock that begins rolling down a mountainside. A huge number (finite in the sense that the number of grains of sand on a beach are finite) of factors influence continuation in treatment. The number of factors is not infinite in principle, but is certainly too large for practical analysis. One solution that appears workable is to take an individualized (i.e., idiographic) case-management approach in which the focus is on doing what is necessary to increase the probability of keeping a particular individual in the treatment enterprise. This may require more active interventive efforts and expansion of traditional psychotherapist role behaviors. These efforts might include pretherapy psychoeducational sessions in which steps toward recovery are outlined and patients are taught about their role in treatment, more extensive use of phone contacts between sessions or when sessions are missed, and explicit discussions of the importance of mutual agreement with regard to therapy goals and interventions as well as

collaboration in the therapy relationship. Home visits, assuming an advocacy role with employers, and family psychoeducation and involvement might be other adjunctive modifications promoting a comprehensive approach to treat-ment. All of these suggestions speak to offering anything to ensure that a specific individual has the opportunity to benefit from the treatment for the condition from which he or she is suffering.

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REFERENCES

Ambühl, H. Die Aufnahmebereitschaft des Klienten als Zentrales Bindeglied Zwischen Therapeutischer Täigkeit und Therapieerfolg [Openness of clients as a central mediator between therapeutic intervention and therapeutic success.] In: Schulte, D., ed. *Therapeutische Entscheidungen.* Göttingen, Germany: Hogrefe, 1991. pp. 71-87.

Ambühl, H. Was ist Therapeutisch an Psychotherapie? Eine Empirische Überprüfung der Annahmen im "Generic Model of Psychotherapy" [What is therapeutic about psychotherapy? An empirical test of the assumptions in the "Generic Model of Psychotherapy"]. *Zeitchrift für Klinische Psychologie, Psychopathologie, und Psychotherapie* 41:285-303, 1993.

Ambühl, H., and Grawe, K. Die Wirkungen von Psychotherapien als Ergebnis der Wechselwirkung zwischen Therapeutischem Angebot und Aufnahmebereitschaft der Klient/inn/en [Therapy outcome as a result of the interaction between therapeutic offer and patient openness]. *Zeitchrift für Klinische Psychologie, Psychopathologie, und Psychotherapie* 36:308-327, 1988.

American Psychiatric Association (APA). *Diagnostic and Statistical Manual of Mental Disorders.* 3d ed. rev. Washington, DC: APA, 1987.

Baekeland, F., and Lundwall, L. Dropping out of treatment: A critical review. *Psychol Bull* 82:738-783, 1975.

Bankoff, E. *Social Support Scales*. Evanston, IL: Department of Psychology, Northwestern University, 1985.

Bankoff, E.A., and Howard, K.I. *Interpersonal Attitudes Scale*. Evanston, IL: Department of Psychology, Northwestern University, 1988.

Carter, D.E., and Newman, F.L. *A Client-Oriented System of Mental Health Service Delivery and Program Management. A Workbook and Guide*. National Institute of Mental Health, Series FN No. 4. DHHS Pub. No. (ADM)80-307. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., 1980.

Craig, T., and Huffine, C. Correlates of patient attendance in an inner-city mental health clinic. *Am J Psychiatry* 13361-13364, 1976.

Daskovsky, D. "The Patient's Assets for Psychotherapy." Ph.D. diss., Northwestern University, 1988.

Derogatis, L.R. *SCL-90: Administration and Procedures Manual-I for the R(evised) Version*. Baltimore: Clinical Psychometrics Research, 1977.

Dworkin, R.J.; Friedman, L.C.; Telschow, R.L.; Grant, K.D., Moffic, H.S.; and Sloan, V.J. The longitudinal use of the Global Assessment Scale in multiple-rater situations. *Community Mental Health J* 26:335-344, 1990.

Endicott, J.; Spitzer, R.L.; Fleiss, J.L.; and Cohen, J. The Global Assessment Scale: A procedure for measuring overall severity of psychiatric disturbance. *Arch Gen Psychiatry* 33:766-771, 1976.

Garfield, S.L. Research on client variables in psychotherapy. In: Garfield, S.L., and Bergin, A.E., eds. *Handbook of Psychotherapy and Behavior Change*. 3d ed. New York: Wiley, 1986. pp. 213-256.

Garfield, S.L. Research on client variables in psychotherapy. In: Bergin, A.E., and Garfield, S.L., eds. *Handbook of Psychotherapy and Behavior Change*. 4th ed. New York: Wiley, 1994. pp. 190-228.

Grawe, K. "A Comparison of the Intercorrelations Between Input, Process and Outcome Variables of the Generic Model for Different Forms of Psychotherapy." Paper presented at The Society for Psychotherapy Research International Meeting, Toronto, Ontario, Canada, June, 1989.

Holmes, T.H., and Rahe, R.H. The Social Readjustment Rating Scale. *J Psychosom Res* 11:213-218, 1967.

Horowitz, L.M.; Rosenberg, S.E.; Baer, B.A.; Ureño, G.; and Villasenor, V.S. Inventory of interpersonal problems: Psychometric

properties and clinical applications. *J Consult Clin Psychol* 56:885-892, 1988.
Howard, K.I.; Brill, P.L.; Lueger, R.J.; O'Mahoney, M.T.; and Grissom, G.R. Integra outpatient tracking assessment: Psychometric properties. Radnor, PA: Integra, Inc., 1992.
Howard, K.I.; Kopta, S.M.; Krause, M.S.; and Orlinsky, D.E. The dose-response relationship in psychotherapy. *Am Psychol* 41:159-164, 1986.
Howard, K.I., and Orlinsky, D.E. Psychotherapeutic processes. *Annual Review of Psychology*. Vol. 23. Palo Alto, CA: Annual Reviews, Inc., 1972. pp. 615-668.
Kolden, G.G. "Process and Outcome in Psychotherapy: An Empirical Examination of Orlinsky and Howard's Generic Model of Psychotherapy." *Diss Abstr Int* 49:1945B, 1988.
Kolden, G.G. The generic model of psychotherapy: An empirical investigation of patterns of process and outcome relationships. *Psychother Res* 1:62-73, 1991.
Kolden, G.G. "Effective Psychotherapeutic Processes in the Early Sessions of Psychodynamically Oriented Psychotherapy." Paper presented at the annual meeting of the International Society for Psychotherapy Research, Pittsburgh, PA, June 1993.
Kolden, G.G., and Howard, K.I. "Presenting Symptoms, Early Psychotherapeutic Experience and Engagement in Psychotherapy." Paper presented at The Society for Psychotherapy Research International Meeting, Ulm, West Germany, June 1987.
Kolden, G.G., and Howard, K.I. An empirical test of the generic model of psychotherapy. *J Psychother Pract Res* 1:225-236, 1992.
McNeilly, C.L., and Howard, K.I. The Therapeutic Procedures Inventory: Psychometric properties and relationship to phase of treatment. *J Psychotherapy Integration* 1:223-234, 1991.
Orlinsky, D.E., and Howard, K.I. The relation of process to outcome in psychotherapy. In: Garfield, S.L., and Bergin, A.E., eds. *Handbook of Psychotherapy and Behavior Change*. 2d ed. NewYork: Wiley, 1978.
Orlinsky, D.E., and Howard, K.I. Process and outcome in psychotherapy. In: Garfield, S.L., and Bergin, A.E., eds. *Handbook of Psychotherapy and Behavior Change*. 3d ed. New York: Wiley, 1986*a*.
Orlinsky, D.E., and Howard, K.I. The psychological interior of psychotherapy: Explorations with the therapy session reports. In: Greenberg, L.S., and Pinsof, W.M., eds. *The*

Psychotherapeutic Process: A Research Handbook. New York: Guilford Press, 1986*b.*

Orlinsky, D.E., and Howard, K.I. A generic model of psychotherapy. *J Integrative Eclectic Psychother* 6:6-27, 1987.

Orlinsky, D.E.; Grawe, K.; and Parks, B.K. Process and outcome in psychotherapy—Noch einmal. In: Bergin, A.E., and Garfield, S.L., eds. *Handbook of Psychotherapy and Behavior Change*. 4th ed. New York: Wiley, 1994.

Orlinsky, D.E.; Lundy, M.; Howard, K.I.; Davidson, C.V.; and O'Mahoney, M.T. *Therapeutic Procedures Inventory—Revised*. Chicago, IL: Northwestern University, 1987.

Perry, K.J; McNeilly, C.L.; and Howard, K.I. "Reliability and Validity of Personality Disorder Diagnoses: An Examination of the Personality Assessment Form." Paper presented at The Society for Psychotherapy Research International Meeting, Lyon, France, July 1991.

Pilkonis, P.A., and Frank, E. Personality pathology in recurrent depression: Nature, prevalence, and relationship to treatment response. *Am J Psychiatry* 145:435-441, 1988.

Reder, P., and Tyson, R.L. Patient dropout from psychotherapy: A review and discussion. *Bull Menninger Clin* 44:229-251, 1980.

Rosenberg, M. *Conceiving the Self*. NewYork: Basic Books, Inc., 1979.

Saunders, S.M. *The Process of Seeking Therapy Questionnaire*. Evanston, IL: Department of Psychology, Northwestern University, 1988.

Saunders, S.M.; Howard, K.I.; and Orlinsky, D.E. The Therapeutic Bond scales: Psychometric characteristics and relationship to treatment effectiveness. *Am J Consult Clin Psychol* 1:323-330, 1989.

Schafer, R. The termination of brief psychotherapy. *Int J Psychoanal Psychother* 2:135-148, 1973.

Sledge, W.H.; Moras, K.; Hartley, D.; and Levine, M. Effect of time-limited psychotherapy on patient dropout rates. *Am J Psychiatry* 147:1341-1347, 1990.

Straker, M. Brief psychotherapy in an outpatient clinic: Evolution and evaluation. *Am J Psychiatry* 124:1219-1225, 1968.

Sue, S.; McKinney, H.L.; and Allen, D.B. Predictors of the duration of therapy for clients in the community mental health system. *Community Mental Health J* 12:365-375, 1976.

Taube, C.A.; Kessler, L.; and Feuerberg, M. Utilization and expenditures for ambulatory mental health care during 1980. *National Medical Care Utilization and Expenditure Survey* (Data Report 5). Washington, DC: U.S. Department of Health and Human Services, 1984.

Tobin, D.L.; Holroyd, K.A.; Reynolds, R.V.; and Weigal, J.K. The hierarchical factor structure of the Coping Strategies Inventory. *Cognitive Ther Res* 13:343-361, 1989.
Vessey, J.T., and Howard, K.I. Who seeks psychotherapy? *Psychotherapy* 30:546-553, 1993.
Weissman, A.N. "The Dysfunctional Attitudes Scale: A Validation Study." Ph.D. diss., University of Pennsylvania, 1979.
Wierzbicki, M., and Pekarik, G. A meta-analysis of psychotherapy dropout. *Profess Psychol Res Pract* 24:190-195, 1993.

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APPENDIX A

Patient Self-Report Items Comprising the Engagement Scale

1. How important is it for you to be in psychotherapy at the present time?
2. How much have you thought about therapy since your last session?
3. During your last session, how much did you talk about what you were feeling?
4. To what extent are you looking forward to your next session?
5. At the present time, taking everything into consideration, how close do you feel to your therapist?
6. To what extent is your therapist someone you can talk to about your private feelings and concerns?

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