

## Test of the Phase Model of Psychotherapy in a Training Clinic

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Recent publications suggest that psychotherapy models generated in outpatient settings do not fully generalize to the training clinic. A possible explanation for these findings is that the nature in which change occurs during psychotherapy may actually differ according to setting. To examine this possibility, the phase model of psychotherapy was tested in an outpatient training clinic. Results partially support the phase model, suggesting that the nature of change during effective psychotherapy within the training clinic setting does not differ from that in other outpatient settings. That is, clients who completed effective courses of treatment in the training clinic environment generally experience an improvement in subjective well-being before evidencing a reduction in symptom distress. Obtaining success in role performances (i.e., work or school) appears to emerge last. Practitioners may enhance treatment outcomes by targeting interventions that are congruent with the phase of the individual client presenting for treatment.

*Keywords:* psychotherapy process, psychotherapy outcomes, phase model, training

Models of change in psychotherapy are not new. Some models of change have focused on the phases the client goes through during, or preparing for, treatment. Among the first to suggest a client stage model was Jung (cited in Groesbeck, 1975), who outlined four nonsequential stages: confession, elucidation, education, and analysis proper. A popular, more recent nonsequential model was outlined by DiClemente and Prochaska (1982) and includes six stages: precontemplation, contemplation, preparation, action, maintenance, and termination. On the other hand, Bandura (1977) and Rogers (1958) suggested sequential client stage models in which each stage depends on progress made in the previous stage. Whereas these models of change have focused on the phases the client goes through, other models of change have been centered on the stages the therapist

moves through (e.g., Fenichel, 1954; Sullivan, 1954).

The literature suggests that psychotherapy models, including models of change, generated in outpatient settings may not fully generalize to the training clinic setting (Callahan & Hynan, 2005; Kadera, Lambert, & Andrews, 1996) because of attenuated rates of treatment response and/or fewer successful courses of treatment than are observed in typical outpatient settings (Howard, Kopta, Krause, & Orlinsky, 1986). However, it has not been clear from these studies whether the treatment response is simply slower in training clinics or whether the models of change in psychotherapy developed in outpatient settings actually apply to training clinic settings.

To examine the question of whether psychotherapy change progresses differently in a training clinic environment, we concluded that a well-replicated client stage model of change involving sequential progression would be most optimal for an initial investigation. The model that best fulfills this requirement is the phase model of psychotherapy, first proposed by Howard, Lueger, Maling, and Martinovich in 1993.

According to the phase model, client change in psychotherapy occurs in a predictable manner with each sequential phase contingent on progress being made in the previous stage. It is

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important to note that this model was formulated to describe only successful courses of psychological treatment, with no specific conceptualizations describing unsuccessful courses of treatment. The three phases, in order, are as follows: remoralization (subjective well-being), remediation (symptom reduction), and rehabilitation (life functioning gains). That is, effective treatment courses are first characterized by clients experiencing improvements in the subjective sense of their own well-being. As a function of this improvement, the client is then able to benefit from interventions meant to provide symptom relief (e.g., decrease sleep disruption or excessive rumination). Finally, clients are subsequently able to effectively resume their former level of role functioning (e.g., doing well in school) or initiate new roles (e.g., obtaining a new job).

Although a relatively recent formulation, the model draws upon the rich historical literature describing the nature of change. Most notably the model reflects formulations previously proposed by Whitehorn (1959; stating that clients expect well, then feel well and, finally, work well) and Uhlenhuth and Duncan (1968; reporting that increased well-being reduces symptom distress). In addition, the phase model research team had previously noted being inspired by Jerome Frank's (1968) work, which demonstrated the importance of instilling hope early in the course of psychotherapy.

The seminal article on the phase model included detailed analyses of data gathered at Sessions 2, 4, and 17 based on prior research indicating that instillation of hope, or subjective improvement in well-being, occurs fairly early in successful treatment (Frank, 1968), whereas alleviation of specific symptoms occurs more slowly (Howard et al., 1986), and full resumption of previous roles or the creation of new ones occurs still more slowly (Whitehorn, 1959). However, the precise sessions chosen were somewhat arbitrary with no investigations to date examining whether analyses of Sessions 3, 5, and 16, for example, would yield a different model of change.

Since its proposal, the phase model of psychotherapy has been widely replicated (e.g., Barkham et al., 1996; Kopta, Howard, Lowry, & Beutler, 1994; Mintz, Mintz, Arruda, & Hwang, 1992). However, the phase model has yet to be researched in a training clinic setting.

Drawing upon these earlier formulations, the phase model provides a widely replicated sequential model of client change that makes it well-suited for examining the nature of change during treatment provided in a training clinic setting.

Data for this investigation were provided by an outpatient training clinic in an American Psychological Association-approved doctoral training program in clinical psychology. From this training clinic both an attenuated response to treatment and also fewer courses of successful outcome than expected, based on the dose-effect model, were reported (Callahan & Hynan, 2005). These data were therefore specifically selected to test the predictions of the phase model. The phase model predicts that successful treatment is characterized by reports of increased subjective well-being (remoralization) that precede symptom reduction (remediation). It further predicts that symptom reduction is a necessary precursor to improvement in life functioning (rehabilitation).

## Method

### *Participants*

With approval from the Institutional Review Board at the University of Wisconsin-Milwaukee, archival data, which included questionnaires and chart information from discharged clients seen at the University of Wisconsin-Milwaukee Psychology Clinic between the fall semester of 1998 and the conclusion of the 2001 fall semester, were used in analyses. All clients consented to research participation at intake; no clients declined the opportunity to participate.

Courses of treatment were eliminated from analyses if positive reliable change from baseline was not attained ( $n = 41, 67.2\%$ ). That is, the change in client scores had to be greater than the known measurement error for the course of treatment to be considered successful. In the cases that remained ( $n = 20, 32.8\%$ ), the mean client age was 27.5 ( $SD = 8.31$ ) with a range of 18 to 51 years of age. Sixty percent of clients were female, 75% were single, and >95% were Caucasian. The most common diagnoses were mood disorders ( $n = 8, 40\%$ ), anxiety disorders ( $n = 5, 25\%$ ), personality disorders ( $n = 2, 10\%$ ), and adjustment disorders ( $n = 2, 10\%$ ). The following disorders were also present and

each accounted for 5% ( $n = 1$ ) of the sample size: substance-related disorder, impulse control disorder, and schizophrenia or other psychotic disorder.

### Measures

Four subjective well-being items were used in this study to determine remoralization in the phase model. On these items clients respond with categorical ratings to produce a total well-being score. These four items are very similar to the two subjective well-being items utilized in Howard et al.'s 1993 phase model, in which clients were asked how upset/distressed they felt and how well they considered themselves to be getting along emotionally and psychologically. Howard et al. reported that their well-being scale achieved a .79 correlation with the General Well-Being Scale (Dupuy, 1977). In addition, the items correlated with both positive and negative affect as measured on Watson and Tellegen's (1985) 10-item scale (.51 and  $-.70$ , respectively). Their two-item subjective well-being scale also achieved a  $-.65$  correlation with the measure of disability in the 36-item Medical Outcomes Study (Stewart, Hays, & Ware, 1988). Using a larger data set of clients from this training clinic ( $n = 99$ ) internal reliability of our four-item measure was calculated to be .71 ( $p < .01$ ) with a 1-week test-retest reliability of .63 ( $p < .01$ ).

Consistent with relevant training clinic studies testing other psychotherapy models (e.g., Callahan & Hynan, 2005; Kadera et al., 1996), the outcome measurement for this study was the 45-item, self-report Outcome Questionnaire 45.2 (OQ45.2; Lambert et al., 1996; Lambert, Okiishi, Finch, & Johnson, 1998). On the OQ45.2 clients respond to items with categorical ratings ranging from *never* to *almost always* to describe their experiences each week. A total score (ranging from 0 to 180) is generated along with three subscores representing different conceptual, symptomatic domains: subjective distress (e.g., symptoms of depression or anxiety), interpersonal functioning (e.g., relationships with others), and social role performance (e.g., school and/or work performances). The OQ45.2 manual reports that the clinical range is indicated by scores on or above a cutoff score of 63 for the total, and domain scores on or above 36, 14, and 12 for symptom distress, interpersonal

functioning, and social role performance, respectively. In this study the symptom distress subscale was used to determine remediation or symptom reduction in the phase model, whereas the interpersonal functioning and social role performance subscales, which factor analysis indicates may not be distinct domains (Vermeersch, Lambert, & Burlingame, 2000), were used to determine rehabilitation in the phase model.

According to the OQ45.2 administration manual, there are no significant differences between male and female samples. The manual also reports a test-retest reliability of .87 for the total and .78-.82 for the domains, an internal consistency of .93 for the total and .70-.92 for the domains, and high concurrent validity [.78-.88 correlation of the total score with the General Severity Index of the Symptom Checklist-90-R (SCL-90-R; Derogatis, 1977), .82-.92 symptom distress domain score with the General Severity Index of the SCL-90-R, .49-.64 interpersonal functioning domain score with the Inventory of Interpersonal Problems (Horowitz, Rosenberg, Baer, Ureno, & Villaseñor, 1988) and Social Adjustment Scale (Weissman & Bothwell, 1976), and .53-.73 correlation of social role performance domain score with the Inventory of Interpersonal Problems and Social Adjustment Scale]. On the OQ45.2 no significant differences according to ethnicity have been identified (Nebeker, Lambert, & Huefner, 1995). An examination of specificity and sensitivity to change during treatment indicated that the OQ45.2 performed adequately (Vermeersch, Lambert, & Burlingame, 2000).

Scores on the four subjective well-being items and the OQ45.2 were analyzed using the reliable change index method (Jacobson & Truax, 1991). Jacobson and Truax developed this method as a way to ensure that a change score is not just statistically significant but also clinically meaningful. They proposed that reliable change be computed by dividing the difference between the pretreatment and posttreatment means by the standard error of the difference between the two scores. If the reliable change index score is  $>1.96$ , then the difference can be considered to reflect a reliable change that would not be expected to occur due to the unreliability of the measurement device. Although some researchers have raised other possible means for determining statistically and

clinically meaningful change (e.g., Hsu, 1989), a comparative review by Maassen (2004) indicates that the reliable change index as formulated by Jacobson and Truax is the most useful for research purposes.

### Procedure

Consistent with the original phase model study (Howard et al., 1993), each client was asked to complete the OQ45.2 prior to Sessions 1, 2, 4, and 17. The four subjective well-being items were also completed prior to Sessions 1, 2, 4, and 17. Measures were not completed in the presence of the therapist, and confidentiality was maintained for all data.

### Results

Twenty adult clients receiving psychotherapy services from 11 student clinicians in, at minimum, the third year of doctoral training in a clinical psychology program participated in the study (these clients were completed cases of successful therapy). After correction for the presence of an outlier by removal from the analysis, the mean number of psychotherapy sessions per client was 12.84 ( $SD = 7.54$ ), with a median of 12 and multiple modes (2, 10, and 18 sessions). The outlier case was only removed from computation of descriptive statistics for length of treatment. This course of treatment consisted of >50 sessions of psychotherapy; whereas inclusion of this case would not have changed the median or mode, it would have altered the mean. This case was included in all subsequent phase model analyses.

Client scores on the OQ45.2 were comparable to the normative data reported for clinical populations. The symptom distress scale mean was 46.22 ( $SD = 13.16$ ), the interpersonal functioning mean was 19.51 ( $SD = 5.98$ ), and the social role performance mean was 15.43 ( $SD = 5.64$ ), with a total score mean of 81.17 ( $SD = 21.91$ ). Each mean falls within the clinical range.

The OQ45.2 domain scores and the subjective well-being scores were tabulated for Sessions 1, 2, 4, and 17 (session numbers are consistent with those chosen and analyzed in the seminal article on the phase model). Using the reliable change index method (Jacobson & Truax, 1991), clients were dichotomously cate-

gorized as reliably improved or not improved on each domain for each of the included sessions. The subjective well-being items were used to measure improvement in remoralization, whereas the symptom distress domain of the OQ45.2 was used to classify those who experienced remediation. Clients who obtained positive reliable change on either the interpersonal functioning domain or the social role performance domain of the OQ45.2 were classified as improved in rehabilitation. That is, clients evidencing an improved score that exceeded the measurement error associated with the measure were categorized as improved.

Tables 1 and 2 present  $2 \times 2$  cross-classification tables (table layouts correspond to that in the seminal article) to facilitate examination of the hypothesized sequential nature of change with each phase dependent on progress in the prior stage. Because of missing data, the number of cases tallied for Session 2 is lower in Table 1 than in Table 2. The number of cases tallied at Sessions 2, 4, and 17 decreases incrementally as a function of successful terminations of treatment. In examining these tables, support for the phase model contention that remoralization (improved well-being) occurs before remediation (declining symptom distress) is evident if the value of one of the two off-diagonal cells is lower than anticipated, given observed base rates. A corresponding examination of the remediation–rehabilitation relationship is also possible in this manner.

Table 1  
*Relationship Between Remoralization  
(Well-Being Improvement) and Remediation  
(Symptom Improvement)*

Reliable symptom improvement	Reliable well-being improvement	
	Yes	No
Session 2 ( $N = 16$ )		
No	8	0
Yes	6	2
Session 4 ( $N = 17$ )		
No	9	1
Yes	2	5
Session 17 ( $N = 8$ )		
No	1	1
Yes	2	4

*Note.* Because of clinician error, 3 participants did not complete the four subjective well-being items at Session 2.

Table 2  
*Relationship Between Remediation  
 (Symptom Improvement) and Rehabilitation  
 (Life Functioning Improvement)*

Reliable symptom improvement	Reliable life functioning improvement	
	Yes	No
Session 2 ( <i>N</i> = 19)		
No	14	2
Yes	0	3
Session 4 ( <i>N</i> = 17)		
No	12	0
Yes	1	4
Session 17 ( <i>N</i> = 8)		
No	1	2
Yes	1	4

To be consistent with the approach of the original phase model analyses (Howard et al., 1993), chi-square analyses were conducted. Analysis of Session 2 revealed a nonsignificant chi-square value for the remoralization–remediation relationship with only a small effect size ( $\varphi = .19$ ); however, a significant relationship [ $\chi^2(1, N = 19) = 9.98, p < .05$ ] was found between remediation and rehabilitation. Because of the low frequency in each cell, a Yates' correction for continuity was applied, yielding a smaller, yet still significant, chi-square value ( $\chi^2 = 5.97, p < .05$ ) and a large effect size ( $\varphi = .56$ ), which supports the hypothesis that symptom improvement (remediation) is a necessary condition for improvement in life functioning (rehabilitation).

Replications were then conducted with data from Sessions 4 and 17. At Session 4 the initial chi-square value for the remoralization–remediation relationship was significant [ $\chi^2(1, N = 17) = 6.80, p < .05$ ] and persisted after applying the Yates' correction ( $\chi^2 = 4.38, p < .05$ ), creating a large effect size ( $\varphi = .51$ ). Remediation (symptom improvement) as a prerequisite for rehabilitation (life functioning improvement) was also replicated [ $\chi^2(1, N = 17) = 12.55, p < .05$ ] and remained significant following the Yates' correction ( $\chi^2 = 8.50, p < .05$ ), with a resultant large effect size ( $\varphi = .71$ ).

At Session 17 the model was not supported. Analyses of the remoralization–remediation relationship and the remediation–rehabilitation relationship gave nonsignificant results with

only small effect sizes obtained ( $\varphi = .15$  each); however, only 8 cases were included in these analyses due to the successful termination of treatment with some of the clients in the sample, and power for these replication analyses was therefore poor.

## Discussion

The literature suggests that psychotherapy models generated in outpatient settings may not fully generalize to the training clinic setting (Callahan & Hynan, 2005; Kadera et al., 1996) due to attenuated rates of treatment response and/or fewer successful courses of treatment than is observed in typical outpatient settings (Howard et al., 1986). It has not been clear from these studies whether the treatment response is simply slower in training clinics or whether the very nature by which change occurs during successful psychotherapy actually differs from that in other outpatient settings.

To elucidate this issue, a test of the phase model of change during psychotherapy (Howard et al., 1993) was performed using data from a training clinic that had previously demonstrated both an attenuated response rate and fewer courses of successful outcome. The phase model predicts that clients experience sequential, progressive change in three predictable stages during successful courses of psychotherapy: remoralization, remediation, and rehabilitation. To test this model quantified self-reports that correspond to each of the three conceptualized phases were analyzed. Because the model is intended to describe successful treatment, only data from clients achieving reliable improvement were included in analyses.

Given that this sample previously demonstrated an attenuated rate of change, it is not surprising that only partial support for the model was obtained at Session 2. The chi-square analysis examining progression from remoralization to remediation showed nonsignificant results, demonstrating only a small effect size. However, a large effect size revealed that clients did demonstrate remediation before rehabilitation as early as Session 2.

At Session 4, the phase model was fully supported. Clients of the training clinic who demonstrated reliable improvement at termination did progress from remoralization to the remediation phase before reporting improvement in the rehabilitation phase. Analyses re-

vealed large effect sizes, which are especially impressive given the low statistical power associated with the analyses.

Analyses of Session 17 data did not reveal any significant findings to support the phase model predictions, with only small effect sizes being obtained. However, it should be noted that the sample size was very small for these analyses, which had an adverse impact on statistical power (Cohen, 1992). In fact, power was suboptimal for each of the chi-square analyses because of the undesirably small sample size ( $n = 8-19$ ). However, a larger sample size was not feasible because the question centered on determining whether the process of change differs in a setting noted to have few courses of successful treatment.

Given the phase model's formulation that progress in psychotherapy is characterized by sequential improvement from one phase to the next, it may seem somewhat contradictory that the current analyses reveal partial support for the phase model, rather than appearing fully supportive (or unsupportive). However, our analyses relied on imperfect measures to dichotomously categorize individual differences. Although the phase model is an attempt to describe the typical experience of change in psychotherapy, it does not purport to describe all individuals. Instead, the model is built on expected base rates for each categorization cell with no expectation that any cell would be completely empty (Howard et al., 1993).

A further statistical consideration is the use of chi-square analyses. These were chosen because the original phase model contingency tables were analyzed with chi-square analyses (Howard et al., 1993); using this same plan for analyses facilitated clear comparisons between the current findings and the model's formulation. Because of the small sample size, the Yates' correction for continuity was applied during analyses, which provided a method of adjusting the obtained chi-square values to more conservative values. Use of this correction is not uniformly recommended (e.g., Conover, 1974; Mantel, 1974), and analyses with such small sample sizes are more typically completed using Fisher's exact test instead of the chi-square test.

However, reexamination of the  $2 \times 2$  contingency tables using Fisher's exact test did not result in differing outcomes. That is, those re-

lationships demonstrating significant Yates' corrected chi-square values were also found to be significant with Fisher's exact test. Similarly, Fisher's exact tests did not suggest any additional significant relationships beyond those already revealed by the Yates' corrected chi-square analyses.

This study has implications for psychotherapy model generation. The support observed for the phase model in this study may be partially explained by the methods used in formulating the model. The model was based on a large number of clients ( $>400$ ), some of whom were treated by trainees. By including trainees, albeit advanced ones, as clinicians the model may be more resilient than other models when tested across settings.

Although the continuum of clinician expertise may have been represented in the phase model formulation, the range of impairment in clients was not fully represented. All clients were considered to be within the mild to moderate range of clinical impairment. Further investigation into the phase model with more severely impaired clients would be useful. It is also noted that this test of the phase model of psychotherapy in a training clinic was performed on a small sample ( $N = 19$ ). Replication is encouraged with a larger sample size to more fully generalize these results.

Finally, this psychotherapy model test was limited in scope to exploration of the changes clients experience during psychotherapy. The results suggest that the slowed response to treatment and smaller number of successful outcomes reported in training clinics (Callahan & Hynan, 2005; Kadera et al., 1996) is not reflective of underlying differences in how change occurs within clients treated in training clinic settings. However, it remains a possibility that the differences in rates of improvement and successful outcomes stem from variations in the changes trainee clinicians experience during the course of therapy. Researchers testing psychotherapy change models that focus on clinician changes (e.g., Fenichel, 1954; Sullivan, 1954) are encouraged to examine this possibility.

The current study provides further support to the observation that the process of change in psychotherapy may be facilitated if planned interventions consider the client's status with respect to the phase model (Howard et al., 1993). In practical terms, a practitioner may find it

more effective to focus treatment on generating hope in a demoralized client before employing interventions intended to relieve symptomatic distress (e.g., sleep disruption or difficulty concentrating) or improve work/school performance (Bandura, 1982).

## References

- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84, 191–215.
- Bandura, A. (1982). The self and mechanisms of agency. In J. Suls (Ed.), *Psychological Perspectives on the Self* (Vol. 1, pp. 3–39). Hillsdale, NJ: Erlbaum.
- Barkham, M., Rees, A., Stiles, W. B., Shapiro, D. A., Hardy, G. E., & Reynolds, S. (1996). Dose-effect relations in time-limited psychotherapy for depression. *Journal of Consulting and Clinical Psychology*, 64, 927–935.
- Callahan, J. L., & Hynan, M. T. (2005). Models of psychotherapy outcome: Are they applicable in training clinics? *Psychological Services*, 2, 65–69.
- Cohen, J. (1992). A power primer. *Psychological Bulletin*, 112, 155–161.
- Conover, W. J. (1974). Some reasons for not using the Yates continuity correction on  $2 \times 2$  contingency tables. *Journal of the American Statistical Association*, 69, 374–376.
- Derogatis, L. R. (1977). *SCL-90: Administration and procedures manual for the revised version*. Baltimore: Clinical Psychometrics Research.
- DiClemente, C. C., & Prochaska, J. (1982). Self-change and therapy change of smoking behavior: A comparison of processes of change in cessation and maintenance. *Addictive Behaviors*, 7, 133–142.
- Dupuy, H. J. (1977). *A current validation study of the NCHS general well-being schedule* (DHEW Publication No. HRA 78–1347). Hyattsville, MD: National Center for Health Statistics, U.S. Department of Health, Education, and Welfare.
- Fenichel, O. (1954). Brief psychotherapy. In H. Fenichel & D. Rappaport (Eds.), *The Collected Papers of Otto Fenichel* (pp. 243–259). New York: Norton.
- Frank, J. D. (1968). The role of hope in psychotherapy. *International Journal of Psychiatry*, 5, 383–395.
- Groesbeck, C. J. (1975). The archetypal image of the wounded healer. *Journal of Analytical Psychology*, 20, 122–146.
- Horowitz, L. M., Rosenberg, S. E., Baer, B. A., Ureno, G., & Villasenor, V. S. (1988). Inventory of interpersonal problems: Psychometric properties and clinical applications. *Journal of Consulting and Clinical Psychology*, 56, 885–892.
- Howard, K. I., Kopta, S. M., Krause, M. S., & Or-linsky, D. E. (1986). The dose-effect relationship in psychotherapy. *American Psychologist*, 41, 159–164.
- Howard, K. I., Lueger, R. J., Maling, M. S., & Martinovich, Z. (1993). A phase model of psychotherapy outcome: Causal mediation of change. *Journal of Consulting and Clinical Psychology*, 61, 678–685.
- Hsu, L. M. (1989). Reliable changes in psychotherapy: Taking into account regression toward the mean. *Behavioral Assessment*, 11, 459–467.
- Jacobson, N. S., & Truax, P. (1991). Clinical significance: A statistical approach to defining meaningful change in psychotherapy research. *Journal of Consulting and Clinical Psychology*, 59, 12–19.
- Kadera, S. W., Lambert, M. J., & Andrews, A. A. (1996). How much therapy is really enough? A session-by-session analysis of the psychotherapy dose-effect relationship. *Psychotherapy: Research and Practice*, 5, 1–21.
- Kopta, S. M., Howard, K. I., Lowry, J. L., & Beutler, L. E. (1994). Patterns of symptomatic recovery in psychotherapy. *Journal of Consulting and Clinical Psychology*, 62, 1009–1016.
- Lambert, M. J., Hansen, N. B., Umpruss, V., Lunnen, K., Okiishi, J., & Burlingame, G. M. (1996). *Administration and scoring manual for the OQ-45.2*. Stevenson, MD: American Professional Credentialing Services LLC.
- Lambert, M. J., Okiishi, J. C., Finch, A. E., & Johnson, L. D. (1998). Outcome assessment: From conceptualization to implementation. *Professional Psychology: Research and Practice*, 29, 63–70.
- Maassen, G. H. (2004). The standard error in the Jacobson and Truax Reliable Change Index: The classical approach to the assessment of reliable change. *Journal of the International Neuropsychological Society*, 10, 888–893.
- Mantel, N. (1974). Comment and a suggestion on the Yates continuity correction. *Journal of the American Statistical Association*, 69, 378–380.
- Mintz, J., Mintz, L. I., Arruda, M. J., & Hwang, S. S. (1992). Treatments of depression and the functional capacity to work. *Archives of General Psychiatry*, 49, 761–768.
- Nebeker, R. S., Lambert, M. J., & Huefner, J. C. (1995). Ethnic differences on the outcome questionnaire. *Psychological Reports*, 77, 875–879.
- Rogers, C. R. (1958). A process conception of psychotherapy. *American Psychologist*, 13, 142–149.
- Stewart, A. L., Hays, R. D., & Ware, J. E., Jr. (1988). The MOS short-form General Health Survey. *Medical Care*, 26, 724–735.

- Sullivan, H. S. (1954). *The psychiatric interview*. New York: Norton.
- Uhlenhuth, E. H., & Duncan, D. B. (1968). Subjective change with medical student therapists: Some determinants of change in psychoneurotic outpatients. *Archives of General Psychiatry*, *18*, 532–540.
- Vermeersch, D. A., Lambert, M. J., & Burlingame, G. M. (2000). Outcome questionnaire: Item sensitivity to change. *Journal of Personality Assessment*, *74*, 242–261.
- Watson, D., & Tellegen, A. (1985). Toward a consensual structure of mood. *Psychological Bulletin*, *98*, 219–235.
- Weissman, M. M., & Bothwell, S. (1976). Assessment of social adjustment by patient self-report. *Archives of General Psychiatry*, *33*, 1111–1115.
- Whitehorn, J. C. (1959). Goals of psychotherapy. In E. A. Rubinstein & M. B. Parloff (Eds.), *Research in Psychotherapy* (pp. 1–9). Washington DC: American Psychological Association.