

Mechanisms of Action of Cognitive Therapy: The Relative Contributions of Technical and Interpersonal Interventions¹

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The contributions of changes in cognitions (degree of belief in "automatic thoughts") and the patient's relationship with his therapist to mood changes occurring during sessions of cognitive therapy were examined in data collected from 17 depressed and anxious patients. Results showed that both changes in automatic thoughts and the patient's relationship with his therapist made independent, additive contributions to mood changes. In addition, two patient characteristics (initial degree of belief in automatic thoughts and diagnosis) made significant unique contributions to mood changes. The stronger the patient's initial belief in his automatic thoughts, the smaller the mood change occurring in the session. Smaller mood changes also occurred in patients with a personality disorder diagnosis. These results suggest that mood changes in cognitive therapy sessions are a function of three types of factors: technical cognitive therapy interventions, the patient's relationship with his/her therapist, and patient characteristics. A multiple regression model with independent variables measuring these factors accounted for 89% of the variance in mood change in the session.

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INTRODUCTION

A major component of cognitive therapy is the process of improving a patient's mood by eliciting his "automatic thoughts" (ATs) and formulating "rational responses" (RRs) to them (Beck, Rush, Shaw, & Emery, 1979; Burns, 1980). The ATs are the distorted cognitions that, according to Beck's cognitive model of depression (Beck, 1972), are directly responsible for the patient's negative mood. Alleviation of the negative mood, according to the theory, is accomplished by correcting or removing the distortions in the ATs. Thus, after the ATs are elicited, the cognitive therapist works with the patient to produce "rational"—that is, undistorted—responses to the ATs.

In a study of five chronically depressed patients, Teasdale and Fennell (1982) showed that the process of changing patients' distorted thoughts produced an improvement in mood, but that a control manipulation consisting of simply exploring the thoughts did not. In another microanalysis of changes within a therapy session, Peterson, Luborsky, and Seligman (1983) reported that in a single patient, changes in cognitions (in particular, changes in attributions for negative events) were related to mood changes.

Larger scale studies have also demonstrated links between cognitions and mood in clinical (Raps, Peterson, Reinhard, Abramson, & Seligman, 1982; Hamilton & Abramson, 1983; Persons & Rao, 1985) and nonclinical (Golin, Sweeney, & Shaeffer, 1981; Lewinsohn, Steinmetz, Larson, & Franklin, 1981; Seligman, Abramson, Semmel, & von Baeyer, 1979) populations, supporting the cognitive model of depression and the rationale for cognitive therapy.

In contrast with most other psychotherapies, the nature or quality of the patient-therapist relationship in cognitive therapy is seen as important but not central to the treatment or its outcome (Beck et al., 1979). The active ingredient in the treatment, and the mechanism underlying the change in mood, is hypothesized to be the patient's decreased belief in his ATs, and the therapist's energies accordingly are directed primarily toward that end. A good working relationship is conceptualized as necessary but not sufficient for effective cognitive therapy (Beck et al., 1979). That is, without a good therapeutic relationship, cognitive therapy techniques would not be expected to be effective.

This view of the process of change in psychotherapy conflicts sharply with the position that the efficacy of psychotherapy is primarily a function of the nature and quality of the patient's personal relationship with the therapist. Strupp and Hadley (1979) reported that patients treated by warm, empathetic college professors benefited as much as patients treated by experienced professionals. They concluded that "the positive changes ex-

perienced by our patients . . . are generally attributable to the healing effects of a benign human relationship" (p. 1135).

While carefully conducted outcome studies (Blackburn, Bishop, Glen, Whalley, & Christie, 1981; Kovacs, Rush, Beck, & Hollon, 1981; Rush, Beck, Kovacs, & Hollon, 1977; Murphy, Simons, Wetzel, & Lustman, 1984) provide evidence that cognitive therapy is an efficacious treatment for depression, they do not tell us anything about the active mechanisms of cognitive therapy. Here we test two competing (but not mutually exclusive) hypotheses about the mechanism responsible for changes in mood during sessions of cognitive therapy: (1) Mood changes are a function of changes in ATs; (2) mood changes are a function of the patient-therapist relationship. To test these hypotheses, we measure mood changes, changes in ATs, and the quality of the patient-therapist relationship in sessions of cognitive therapy.

Patient characteristics are a third factor in the equation predicting psychotherapy outcome (Garfield, 1978). We address this question by assessing several patient characteristics and estimating their contribution to mood changes in sessions of cognitive therapy.

METHOD

Subjects

Subjects were 17 patients treated by Dr. Burns ($N = 7$) in his private practice and by Dr. Persons ($N = 10$) during her 2nd year of postdoctoral training as a clinical psychologist and in her subsequent private practice. The patients were nonpsychotic outpatients whose chief symptomatic complaints were anxiety and depression. Each patient was assigned a DSM-III diagnosis by his therapist. Patients received the following Axis I diagnoses: major depression ($N = 11$), bipolar illness, depressed type ($N = 1$), dysthymic disorder ($N = 3$), obsessive-compulsive disorder ($N = 1$), generalized anxiety disorder ($N = 1$). Four subjects additionally received Axis II personality disorder diagnoses: Two were diagnosed borderline personality disorder and two were diagnosed dependent personality disorder.

Thirteen (76%) patients were male; 4 (24%) were female. The mean age of the sample was 36 (range 19-60). All were treated with cognitive therapy at the time data for this study were collected; some were also treated with other modalities (e.g., exposure and response prevention for the obsessive-compulsive). In addition, five (29%) received concomitant medication treatment. Patients experienced a wide range of severity of symptoms

at the time data were collected, with Beck Depression Inventory (BDI) scores for the sample ranging from 0 to 33 (Mean = 16.4, $SD = 10.7$).

Measures

Daily Record of Dysfunctional Thoughts. The patient's mood and degree of belief in ATs and RRs were recorded at the beginning and end of each session by the therapist, using the Daily Record of Dysfunctional Thoughts (Beck et al., 1979). First, the therapist asked the patient to describe his feelings about some upsetting event and rate their intensity from 1 to 100. Next, the therapist elicited the ATs "responsible for" these feelings, and asked the patient to rate the degree of belief in each AT on a scale from 0 to 100. Next, the patient and his therapist worked together to formulate RRs to the ATs, and the patient rated degree of belief in each RR. Following the rating of the RRs, patients were asked to rerate degree of belief in each of their ATs and to rerate the intensity of their feelings.

To calculate percent change in mood as a function of initial mood we used the formula:

$$\text{Percent mood change} = \frac{\text{Initial mood} - \text{Mood at end of session}}{\text{Initial mood}} \times 100$$

An analogous formula was used to calculate percent change in ATs. Thus, for example, a reduction in mood intensity from 80 to 40 would be expressed as an $[(80 - 40)/80] \times 100 = 50\%$ reduction in negative mood. Positive numbers for percent mood change and change in ATs correspond to a reduction in negative mood and a decrease in the degree of belief in the ATs during the session.

*Patient's Report of the Therapy Session.*³ At the end of the session patients completed a 10-item questionnaire in which they were asked to rate their interpersonal relationship with their therapist. The test, which is reproduced in Appendix A, asks the patient to rate his/her feelings of warmth, trust, and empathy during the session. Each item was scored 1 (weak feeling), 2 (moderate feeling), 3 (strong feeling), or 4 (extremely strong feeling). Five items were worded so that a response of 4 indicated a positive relationship with the therapist, and the remaining 5 items were scored in the opposite manner, so that a response of 4 indicated a negative relationship with the therapist. Before the patient's responses were tallied, scores were trans-

³The Patient's Report of the Therapy Session was adapted from a set of scales developed by Jeffrey E. Young to assess therapeutic efficacy.

formed so that all items were scored from 1 (a negative response) to 4 (a positive response). The score on the test was the sum of transformed scores for the 10 items. Coefficient alpha, a measure of the internal consistency of the test, was .70 (Anastasi, 1976, p. 118).

Procedure

Data were collected from patients during sessions that lent themselves to the use of the Daily Record of Dysfunctional Thoughts. (Not all sessions of cognitive therapy do. Other sessions, for example, might be spent listing advantages and disadvantages of irrational assumptions, or designing experiments to test ATs or irrational beliefs.) Sessions lasted approximately 50 minutes.

The present study analyzes data from one session of cognitive therapy for each subject. More than one session of data was actually collected from six subjects. However, to ensure a balanced design and because our sample size was not large enough to conduct an analysis that would control for individual differences in the case of subjects providing more than one session, only one session from each subject was analyzed. For 50% of the subjects for whom more than one session of data was collected ($N = 3$), the data session analyzed was the first one collected. In 50% of cases ($N = 3$), a later session was analyzed, for the following reasons: In one case the first session was discarded because the patient insisted on using a scale of 0 to 1 million to rate the intensity of her feelings. In two cases sessions were discarded because the therapist was unable to answer and rerate all the ATs given by the patient during the session. In one case, for example, a patient began the session rating his sadness as 60 and reported several ATs about being personally unattractive. After these thoughts were successfully countered (degree of belief in the ATs was reduced from 100, 90, and 100 to 75, 0, and 0, respectively) but before mood could be rerated, the patient suddenly reported a new AT ("I don't know if I'll ever get happy—I am hopeless."), an AT he believed 100% and which increased his sadness to 100. Time did not permit this last thought to be dealt with in the session, and therefore the session was omitted from the formal analysis.

RESULTS

Table I presents mean scores for patients' ratings of their mood and ATs at the beginning and end of the session and for changes in mood occurring during the session. In addition, mean scores for the patient's degree of

Table 1. Mean Values of Mood Intensity and Degree of Belief in ATs and RRs at the Beginning and End of the Session ($N = 17$; SDs in parentheses)

	Beginning of session	End of session	Percent change ^a	t^b
Mood intensity	78.09 (20.57)	40.78 (24.49)	49.00 (27.78)	7.27
Degree of belief in ATs	83.14 (13.40)	41.26 (21.60)	51.10 (22.73)	9.26
Degree of belief in RRs ^c		81.59 (11.82)		
Relationship ^d		33.91 (2.98)		

^aPercent difference score is obtained by subtracting score at the end of the session from score at the beginning of the session, dividing by the score at the beginning of the session, and multiplying by 100 (this last in order to express the difference score in percentage terms). Thus, for example, a reduction in mood intensity from 90 to 30 would be expressed as $[(90 - 30)/90] \times 100 = 67\%$.

^b t tests are one-tailed tests for uncorrelated means, and both are significant at better than the .001 level.

^cRRs are rated only once during the session.

^dThe range of possible scores on the Patient's Report of the Therapy Session is 10 to 40, with higher numbers indicating a more positive relationship with the therapist.

belief in his RRs and for the quality of his relationship with his therapist, measured using the Patient's Report of the Therapy Session, are presented. Results show that, as predicted by cognitive theory, both mood and ATs showed significant decreases in intensity during the session. At the beginning of the session, the average patient's mean negative mood rating was 78.1, and the mean degree of belief in the ATs was 83.1. At the end of the session, these figures were 40.1 and 41.3, respectively. Change scores showed a mean change in mood of 49% and in ATs of 51%; t tests show that these changes are statistically significant ($t = 7.27$ and 9.26 , respectively, $p < .001$). The degree of belief in rational responses (RRs) was, in general, quite high, with a mean of 81.6 (range 58.9 to 100). Patients also rated their relationship with their therapist quite positively, with a mean rating of 33.9.

These results were quite reliable across the sample. Fourteen of 17 patients showed a substantial decrease in the intensity of their negative mood (range 32% to 87%) and a corresponding substantial decrease in the degree of belief in their ATs (range 28% to 75%). One patient showed a substantial (74%) decrease in ATs but only an 8% decrease in mood intensity. Two patients showed essentially no change in mood or ATs during the session.

We turn now to the relationship between mood change and the two mechanisms of psychotherapy we measured: changes in ATs and quality of relationship with the therapist. As shown in Table II, there was a highly significant correlation between mood change and change in ATs ($r = .64$, $p < .01$), and between mood change and the patient's relationship with his therapist ($r = .71$, $p < .01$).

Table II. Correlations of Mood, ATs, RRs, Changes in ATs and RRs, and Demographic Variables

	Initial mood	Mood change	Initial ATs	AT change	RRs	Relationship	Medication ^a	Axis II diagnosis ^a
Initial mood	—	-.17	.39	.40	-.07	-.21	.37	.09
Mood change		—	-.62 ^b	.64 ^b	.36	.71 ^b	-.08	-.68 ^b
Initial ATs			—	-.20	-.02	-.33	.32	.33
AT change				—	.23	.38	.17	-.32
RRs					—	.43	.32	-.39
Relationship						—	.21	-.38
Medication							—	-.05
Axis II diagnosis								—

^aMedication and Axis II diagnosis are coded 1 if medications or an Axis II diagnosis were given, and zero otherwise.

^b $p < .01$.

Two additional questions arise. First, do these two effects (changes in ATs and the relationship with the therapist) make separate, independent contributions to the change in mood? To answer this question, we estimated a multiple regression equation in which mood change, the dependent variable, was postulated to be a function of changes in ATs and the relationship with the therapist: The equation was

$$\text{Changes in mood} = \alpha + \beta \text{ Changes in ATs} + \gamma \text{ Relationship} + \epsilon$$

Results of the multiple regression analysis confirmed the results of the correlational analysis. *T* tests on the coefficients of both the AT and the Relationship variables were statistically significant ($t = 2.56$ and 3.23 , respectively, $p < .01$). Thus, ATs and Relationship factors each made independent, additive contributions to changes in mood. The R^2 for this model was .66, indicating that the model accounted for 66% of the variance in mood change during the session.

We also used the multiple regression equation to examine the effects of patient characteristics and other variables that might contribute to changes in mood. When terms for age, sex, therapist, number of feelings, number of ATs, number of RRs, and Axis I diagnosis were added (one at a time) to the regression equation, *t* tests showed that none had a coefficient significantly different from zero.⁴ However, two terms did make significant contributions to the proportion of variance in mood change accounted for by the model. There was a negative relationship between mood change and the initial degree of belief in ATs ($t = -3.09$, $p < .01$), indicating that the more strongly the patient believed his ATs at the beginning of the session, the smaller the mood change during the session. There was also a relationship between mood change and Axis II diagnosis, with patients who received an Axis II (personality disorder) diagnosis showing less mood change during the session (t on the multiple regression coefficient for Axis II diagnosis = -3.06 , $p < .01$). Both these findings also appear in the correlational analysis shown in Table II ($r = -.62$, $p < .01$ for the relationship between mood change and strength of initial ATs; $r = -.68$, $p < .01$ for the relationship between mood change and personality disorder diagnosis).

Accordingly, these two terms were added to the multiple regression model, and the final model estimated was:

$$\text{Mood change} = -18.49 + (.41) \text{ Change in ATs} + (3.20) \text{ Relationship} + (-.68) \text{ Initial ATs} + (-22.22) \text{ Axis II diagnosis} + \epsilon$$

⁴The therapist variable was a dummy variable, coded 0 for patients treated by Dr. Persons and 1 for patients treated by Dr. Burns. The Axis I diagnosis variable was also a dummy variable, coded 1 for patients with a diagnosis of some type of depression, and 0 for nondepressed patients.

The first right-hand term is the constant term. Estimated beta coefficients for each independent variable are presented in parentheses in the equation. The coefficient of .41 on the change in ATs term indicates that a reduction in degree of belief in ATs of, for example, 10% is associated with a 4.1% ($.41 \times 10$) improvement in mood.

Coefficients on all four of the independent variables were statistically significant at better than the .01 level, with changes in ATs and Relationship factors showing a positive relationship to mood change, and initial ATs and Axis II diagnosis showing negative relationships. The R^2 for the model was .89, indicating that the model accounted for 89% of the variance in mood change during the session.

DISCUSSION

Results of this microanalysis of cognitive therapy sessions show that, as predicted by the cognitive model, a reduction in the intensity of negative mood is associated with a decrease in the patient's degree of belief in his ATs. The relationships between changes in ATs and changes in mood were both large and consistent across subjects.

A good relationship with the therapist also contributed to improvements in mood during the session. Moreover, the AT and Relationship factors made independent additive contributions to changes in mood: A multiple regression model including both changes in ATs and Relationship factors accounted for more of the variance in mood than a model including only the AT or only the Relationship effect.

The theory of cognitive therapy assumes that Relationship factors and changes in ATs cause mood change. However, our data do not rule out other directions of causality. For example, it is certainly possible that changes in ATs might produce mood change, which then leads to positive ratings of the therapeutic relationship. One approach to studying this question might be to obtain independent ratings of the patient-therapist relationship, although independent ratings would tap a slightly different construct than is tapped by ratings made by the patients themselves.

The finding that relationship factors are important in sessions of cognitive therapy emphasizes a point made earlier by Bandura (1977), namely, that observing the therapist's activity in the session does not necessarily tell us very much about the mechanism of change in the patient. That is, the fact that in cognitive therapy the patient and therapist spend the session eliciting and modifying distorted ATs does not prove that mood changes during the session result solely from changes in the degree of belief in the ATs. How, then, can we learn about the processes of change in the patient during psy-

chotherapy? In the present study we addressed this question by studying assessments collected from the patient during and immediately after therapy sessions. In addition, one of the advantages of the multiple regression approach used here is that it allows the investigator to assess the independent effects of several factors contributing to change during sessions of psychotherapy.

This research strategy reveals, in the present study, that mood change in sessions of cognitive therapy is a function of relationship factors in addition to technical cognitive therapy interventions. The cognitive model views relationship factors as "necessary but not sufficient" for successful cognitive therapy. That is, without an adequate therapeutic relationship, technical interventions would not be expected to be effective. Since none (or at most, one) of the patients in the present study reported a negative relationship with their therapist, this hypothesis could not be tested here. However, it certainly merits investigation in future studies.

How might the technical dimensions of cognitive therapy be conceptualized in the terms of the cognitive model? An excessively positive or negative relationship with the therapist could result in part from distorted cognitions about the therapist (Beck et al., 1979). These can be explored and modified as part of the treatment process. Failure to address these reactions could significantly impair therapeutic progress. The current findings suggest that training therapists to handle interpersonal issues skillfully is as important in cognitive therapy as in any other form of psychological or medical treatment. An excessive enthusiasm for the rational and technical aspects of cognitive therapy could have detrimental effects on treatment outcome.

For this reason it is important not to equate the degree of change in the patient's belief in his automatic thoughts and the skill of the therapist. A therapist who "browbeats" or coerces patients into changing (or reporting changes in) ATs may be quite successful in modifying ATs but is not likely to be considered a skillful therapist.

In addition to studying technical relationship factors, we also investigated several patient characteristics. While our results showed no relationship between the patient's sex and the dependent variable, this question may merit further study in view of the fact that 76% of the present sample was male, an atypical distribution for depressed and anxious outpatients.

Results showed that two of the patient characteristics we measured were related to mood change: degree of initial belief in the ATs, and a personality disorder diagnosis. The finding that the greater the patient's belief in his ATs at the beginning of the session, the smaller the mood change occurring in the session is reminiscent of the common finding that healthier patients do better in psychotherapy than more severely disturbed ones.

Psychiatric diagnosis plays an unusual role in this study. We did not select our patients on the basis of psychiatric diagnosis, but rather on the

basis of the presence of negative feelings that lent themselves to the use of the AT-RR format. The patient's report of negative feelings—not his psychiatric diagnosis—was the phenomenon we wished to understand (Persons, *in press*). The possibility that psychiatric diagnosis might play a role in explaining mood changes in the session was tentatively explored by including terms for Axis I and Axis II diagnoses in the multiple regression model. Results showed that an Axis I diagnosis of depression did not affect mood change during the session, but that the presence of an Axis II (personality disorder) diagnosis was associated with smaller mood changes. Certainly the finding that patients with personality disorders are more difficult to treat is consistent with clinical experience. However, this finding must be taken as suggestive only due to the small sample of the present study and the fact that diagnostic procedures were not rigorously standardized. Notwithstanding these caveats, this is an intriguing finding that merits further investigation.

Is it possible that the results we obtained are due to demand characteristics—that is, that patients knew what was expected of them and behaved accordingly? Our data do not provide any definitive answer to this question. In order to investigate this question further we are studying mood changes in patients who do cognitive therapy self-help assignments at home—when the therapist is not present and presumably the “demand” to improve is less. It would also be useful in future studies to measure “demand” characteristics directly and to include this parameter as an explanatory variable in a multiple regression model.

Another very interesting question that, unfortunately, cannot be answered here, is: What is the relationship of within- and between-session changes in cognitive therapy? Do successful sessions lead to successful outcomes? Is feeling better the same as getting better? It is conceivable that psychotherapy sessions producing profound quick improvement in mood might not be therapeutic. The behavior therapist knows that escape from a phobic stimulus causes the patient to feel better but does not alleviate and may worsen his phobia.

Additional studies are also needed to address the issue of the relative responsiveness of various kinds of negative emotions, such as depression, anxiety, anger, frustration, jealousy, and hopelessness, to technical and interpersonal interventions. Interpersonal interventions might be of primary importance for patients with certain types of problems (hostile, angry patients), whereas cognitive interventions might be relatively more important for patients with other difficulties.

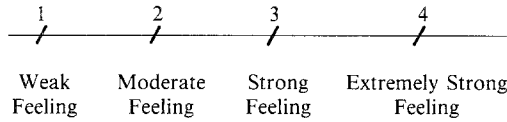
REFERENCES

- Anastasi, A. (1976). *Psychological testing*. New York: Macmillan.
- Bandura, A. (1977). *Social learning theory*. Englewood Cliffs, New Jersey: Prentice-Hall.
- Beck, A. T. (1972). *Depression: Causes and treatment*. Philadelphia: University of Pennsylvania Press.
- Beck, A. T., Rush, A. J., Shaw, B. F., & Emery, G. (1979). *Cognitive therapy of depression*. New York: Guilford Press.
- Blackburn, I. M., Bishop, S., Glen, A. I. M., Whalley, L. J., & Christie, J. E. (1981). The efficacy of cognitive therapy in depression: A treatment trial using cognitive therapy and pharmacotherapy, each alone and in combination. *British Journal of Psychiatry*, *139*, 181-189.
- Burns, D. D. (1980). *Feeling good: The new mood therapy*. New York: William Morrow.
- Garfield, S. L. (1978). Research on client variables in psychotherapy. In S. L. Garfield & A. E. Bergin (Eds.), *Handbook of psychotherapy and behavior change* (2nd ed.). New York: Wiley.
- Golin, S., Sweeney, P. D., & Shaeffer, D. E. (1981). The causality of causal attributions in depression: A cross-lagged panel correlational analysis. *Journal of Abnormal Psychology*, *90*, 14-22.
- Hamilton, E. W., & Abramson, L. Y. (1983). Cognitive patterns and major depressive disorder: A longitudinal study in a hospital setting. *Journal of Abnormal Psychology*, *92*, 173-184.
- Kovacs, M., Rush, A. J., Beck, A. T. & Hollon, S. D. (1981). Depressed outpatients treated with cognitive therapy or pharmacotherapy. *Archives of General Psychiatry*, *38*, 33-41.
- Lewinsohn, P. M., Steinmetz, J. L., Larson, D. W., & Franklin, J. (1981). Depression-related cognitions: Antecedent or consequence? *Journal of Abnormal Psychology*, *90*, 213-219.
- Murphy, G. E., Simons, A. D., Wetzel, R. D., & Lustman, P. J. (1984). Cognitive therapy and pharmacotherapy: Singly and together in the treatment of depression. *Archives of General Psychiatry*, *41*, 33-41.
- Persons, J. B. (in press). The advantages of studying psychological phenomena rather than psychiatric diagnoses. *American Psychologist*.
- Persons, J. B., & Rao, P. A. (1985). Longitudinal study of cognitions, life events and depression in psychiatric inpatients. *Journal of Abnormal Psychology*, *94*, 51-63.
- Peterson, C., Luborsky, L., & Seligman, M. E. P. (1983). Attributions and depressive mood shifts: A case study using the symptom-context method. *Journal of Abnormal Psychology*, *92*, 96-103.
- Raps, C. S., Peterson, C., Reinhard, K. E., Abramson, L. Y., & Seligman, M. E. P. (1982). Attributional style among depressed patients. *Journal of Abnormal Psychology*, *91*, 102-108.
- Rush, A. J., Beck, A. T., Kovacs, M., & Hollon, S. (1977). Comparative efficacy of cognitive therapy and pharmacotherapy in the treatment of depressed outpatients. *Cognitive Therapy and Research*, *1*, 17-37.
- Seligman, M. E. P., Abramson, L. Y., Semmel, A., & von Baeyer, C. (1979). Depressive attributional style. *Journal of Abnormal Psychology*, *88*, 242-247.
- Strupp, H. H., & Hadley, S. W. (1979). Specific vs. nonspecific factors in psychotherapy. *Archives of General Psychiatry*, *36*, 1125-1136.
- Teasdale, J. D., & Fennell, M. J. V. (1982). Immediate effects on depression of cognitive therapy interventions. *Cognitive Therapy and Research*, *6*, 343-352.

APPENDIX A

Patient's Report of Therapy Session

Using the scale from 1 to 4 below, rate the EXTENT TO WHICH YOU FEEL EACH OF THESE STATEMENTS IS TRUE TODAY.



- _____ 1. The things my therapist says and does make me feel I can trust him.
- _____ 2. He often does not seem to be genuinely himself.
- _____ 3. He pretends that he likes me or understands me more than he really does.
- _____ 4. I feel that he really thinks I'm worthwhile.
- _____ 5. He is friendly and warm toward me.
- _____ 6. He does not really care what happens to me.
- _____ 7. He usually understands what I say to him.
- _____ 8. He understands my words, but not the way I feel.
- _____ 9. He really sympathizes with my difficulties.
- _____ 10. He acts condescending; talks down to me.